

# Oracle® Fusion Middleware

## Administering the Application Adapters for Oracle WebCenter



12c (12.2.1.3.0)

E80985-02

November 2017

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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Oracle Fusion Middleware Administering the Application Adapters for Oracle WebCenter, 12c (12.2.1.3.0)

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# Preface

This document describes Oracle business application solution configurations for Oracle WebCenter systems.

## Audience

This document is intended for administrators configuring integration solutions between Oracle business applications and Oracle WebCenter systems.

## Documentation Accessibility

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

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## Related Documents

The complete Oracle WebCenter Content documentation set is available from the Oracle Help Center at <http://www.oracle.com/pls/topic/lookup?ctx=fmw122130&id=wccdocs>.

## 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.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the page, or text that you enter.

# What's New in This Guide

Oracle WebCenter Application Adapters enable improved document image processing and attachment solutions.

This chapter contains the following topics:

- [Significant Documentation Changes for 12c \(12.2.1.3.0\)](#)
- [Significant Documentation Changes for 12c \(12.2.1.2.0\)](#)

## Significant Documentation Changes for 12c (12.2.1.3.0)

For 12c (12.2.1.3.0) release, this guide has been updated in several ways. Following are the significant changes:

- UCM web service implementation of Managed Attachments. See [Configuring Elements for UCM Web Service Implementation of Managed Attachments](#) and [Configuring Communication for Managed Attachments Web Service](#).
- AXF web service implementation of Managed Attachments. See [Configuring Elements for AXF Web Service Implementation of Managed Attachments](#).
- Clustering for AXF in Imaging Managed Servers. See [Clustering for AXF in Imaging Managed Servers](#).
- Availability of Driver.jspx for testing Managed Attachments solution. See [Testing the Managed Attachments Solution](#).
- Customize AFDocuments Security Group for Access Control List. See [Customizing AFDocuments Security Group for Access Control List](#) and [Configuring an Entity's Private Attachments Security Group](#).
- System architecture diagrams of Imaging Solution and Managed Attachments Solution. See [About the BPEL Imaging Solution](#), [Imaging Solution System Architecture](#), and [Managed Attachments Solution System Architecture](#).

## Significant Documentation Changes for 12c (12.2.1.2.0)

For 12c (12.2.1.2.0) release, this guide has been updated in several ways. Following sections contain significant changes:

- Added the post-upgrade steps for Managed Attachments solution. See [Post-Upgrade Steps for Managed Attachments Solution](#).
- Updated the steps to configure elements for Managed Attachments.
- Added a note to specify that Driver.jspx is not available in the Managed Attachments solution 12c. See [Testing the Managed Attachments Solution](#).

# 1

## Introduction to Application Adapter Solutions

The Application Adapters for Oracle WebCenter consists of Imaging Solution and Managed Attachments Solution, which enable you to easily access, view, and act on your business transactions.

The **Imaging Solution** provides imaging, capture, and workflow capabilities using Oracle WebCenter Content: Imaging, and the **Managed Attachments Solution** enables business users to attach, scan, and retrieve document attachments stored in an Oracle WebCenter Content Server (Content Server) repository.

This chapter covers the following topics:

- [About Application Extension Framework \(AXF\)](#)
- [About the BPEL Imaging Solution](#)
- [About the Managed Attachments Solution](#)
- [About Adapter Components](#)
- [About Adapter Security and Authentication](#)
- [Adapter System Requirements](#)
- [Adapter Configuration Roadmap](#)

### 1.1 About Application Extension Framework (AXF)

Oracle WebCenter Content business application integration solutions use the **Application Extension Framework (AXF)** infrastructure, a command-driven, web services integration, to integrate a business application such as Oracle E-Business Suite or Oracle PeopleSoft with a content management application such as Imaging or Content. AXF's open Java-based architecture enables integrators to configure and modify multiple Oracle WebCenter Content business application integrations solutions separate from the business applications themselves.

The **AXF for BPEL** infrastructure relies on AXF database tables (WebCenter Imaging tables) as the basis for configuring AXF solutions, commands, and web tools, implemented and customized by a solution developer or solution accelerator.

An **AXF solution** is a micro-application whose components are created using either AXF infrastructure. Solutions are installed on top of a base configuration of core AXF and business application files standard to solutions that use AXF functionality.

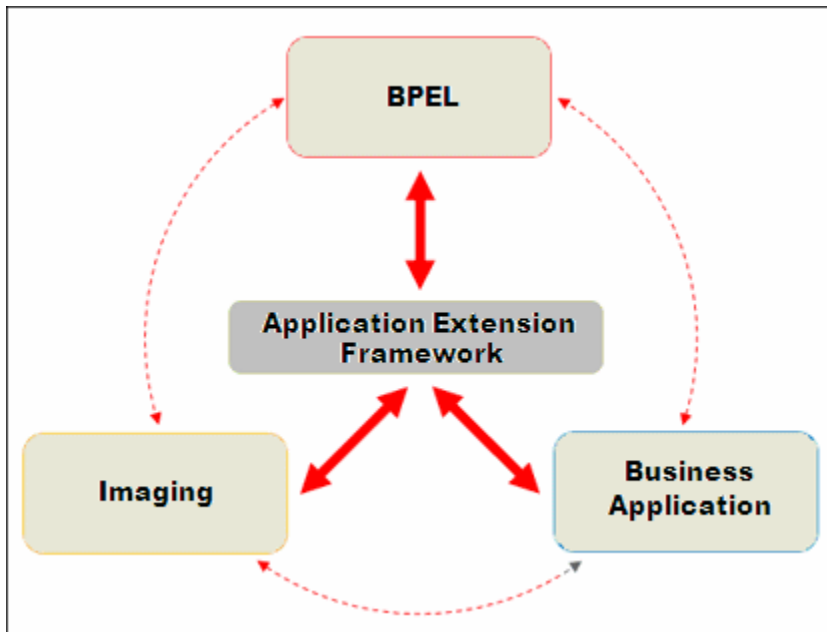
The **Imaging solutions** provide user interface components that form a task list that lists assigned human workflow tasks and a task detail area where users acquire, complete, and release human workflow tasks.

You can use either AXF structure with the **Managed Attachments solution**. (If using both solutions, it is recommended that you use the same AXF version.)

## 1.2 About the BPEL Imaging Solution

A workflow Imaging solution is an integration between a business application and BPEL (Oracle BPEL Process Manager), using Imaging as the imaging source, as shown in [Figure 1-1](#). Through an AXF configuration, business users can process associated images and perform document-centric workflow tasks from their business application user interface.

**Figure 1-1** Imaging Solution integrates Business Application, Imaging, and BPEL Systems



This section covers the following topics:

- [Business User View of the BPEL Imaging Solution](#)
- [Imaging Solution System Architecture](#)
- [About AXF Commands Used by the BPEL Imaging Solution](#)
- [About BPEL Imaging User Interface Components](#)

### 1.2.1 Business User View of the BPEL Imaging Solution

From a business user's perspective, the integration is virtually seamless. End-users use the Imaging solution to:

- View attached images and metadata values. Use Imaging's tools for viewing, annotating, and redacting images, as permissions allow.
- Key entries in the business application while viewing images and related values in the Imaging viewer.
- Perform actions related to the workflow task, such as routing, canceling, updating, and completing tasks.

- Scan or upload supporting documents for a selected business application record.
- View supporting images for a business application record without leaving the business application.

### 1.2.1.1 Imaging Scenario 1: Processing Invoices

A BPEL Imaging Solution configured for invoice processing might work as follows:

1. A workflow process automatically generates user tasks.

An invoice is uploaded, metadata values are assigned, and a task for processing the invoice is generated. Typically, tasks are pooled into profiles from which groups of users select. A user may have access to tasks in multiple profiles.

2. From the business application, the user launches the Imaging Solution, by clicking a button or link or selecting a command called **Process Invoices**.
3. The user selects a task from those listed for a selected profile. Once a task is selected (acquired), it is no longer available to other users.
4. In the Task Viewer, users view the task's invoice image, key entries in the business application based on the image, and perform related commands.

Additional action commands are typically provided in a side panel. Users might route the task to another user or user group for approval, add comments for others to view, skip the task, or re-scan or delete the task's document.

5. Users complete the task and begin another, if desired.

Most often, changes users make in the business application are synchronized with Imaging, and vice versa.

#### Note:

For details about Imaging Solution user tasks, see the Using the BPEL Imaging Solution in the *Using the Application Adapters for Oracle WebCenter*.

### 1.2.1.2 Imaging Scenario 2: Capturing Supporting Employee Documents

An Imaging Solution configured for capturing supporting documents might work as follows:

1. From the business application, a user retrieves a record such as an employee record.
2. The user launches the document imaging solution, by clicking a link or button or selecting a command called **Scan Employee Document**.
3. Oracle WebCenter Enterprise Capture launches and automatically initiates a scan (if a scanner is attached to the desktop) or enables the user to upload electronic images from desktop.
4. The user enters metadata (index) values in Oracle WebCenter Enterprise Capture to store with the images.
5. The user clicks **Release**, and the captured document images and their metadata are transmitted from Oracle WebCenter Enterprise Capture to Imaging.



### 1.2.1.3 Imaging Scenario 3: Viewing Supporting Employee Documents

An Imaging Solution configured for viewing supporting documents might work as follows:

1. From the business application, a user retrieves a record such as an employee record.
2. A user launches the document imaging solution, by clicking a button or link or selecting a command called **View Employee Documents**.
3. From the list of documents associated with the employee record and their metadata values, the user selects a document.
4. The document displays in the Imaging viewer, where the user can view its images, and with appropriate permissions, apply annotations or redactions.

## 1.2.2 Imaging Solution System Architecture

Figure 1-2 illustrates an imaging solution configuration for the Oracle E-Business Suite adapter.

Figure 1-2 System Architecture for an Oracle E-Business Suite Adapter Imaging Solution

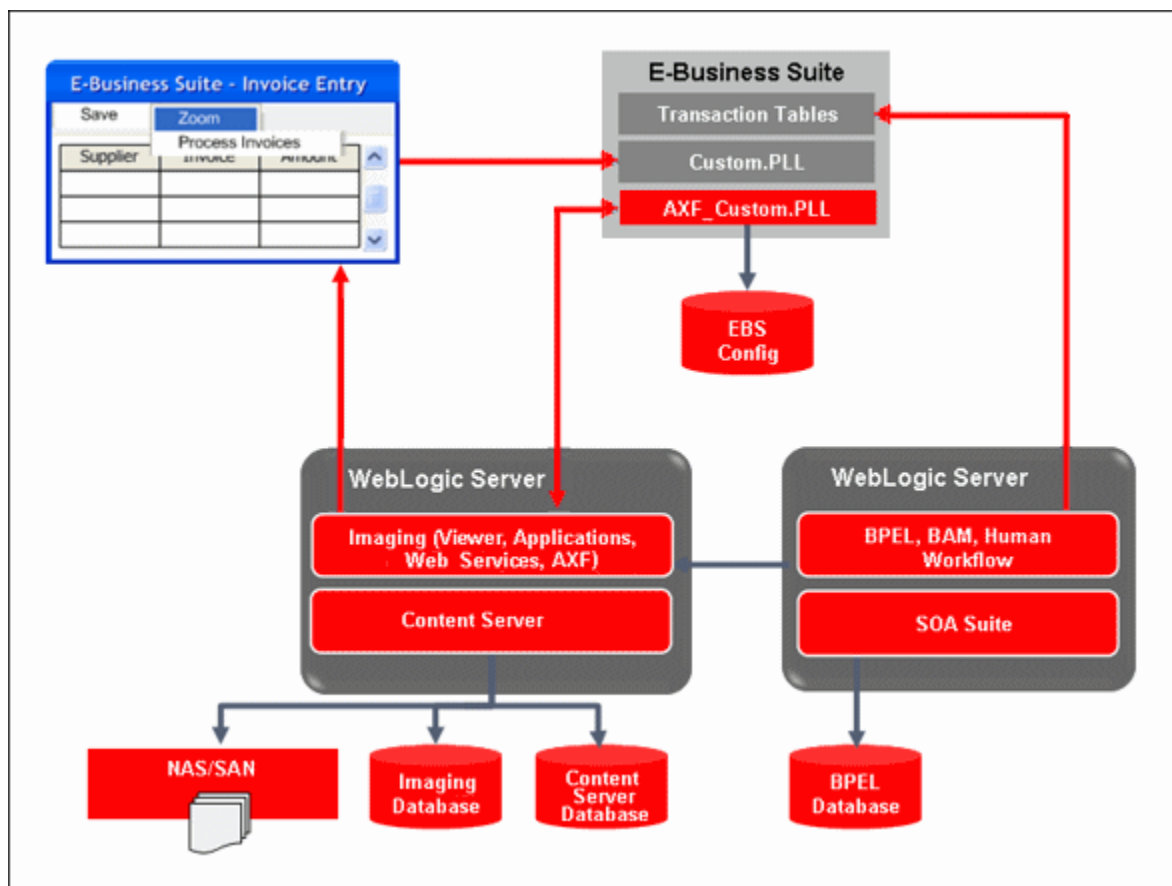
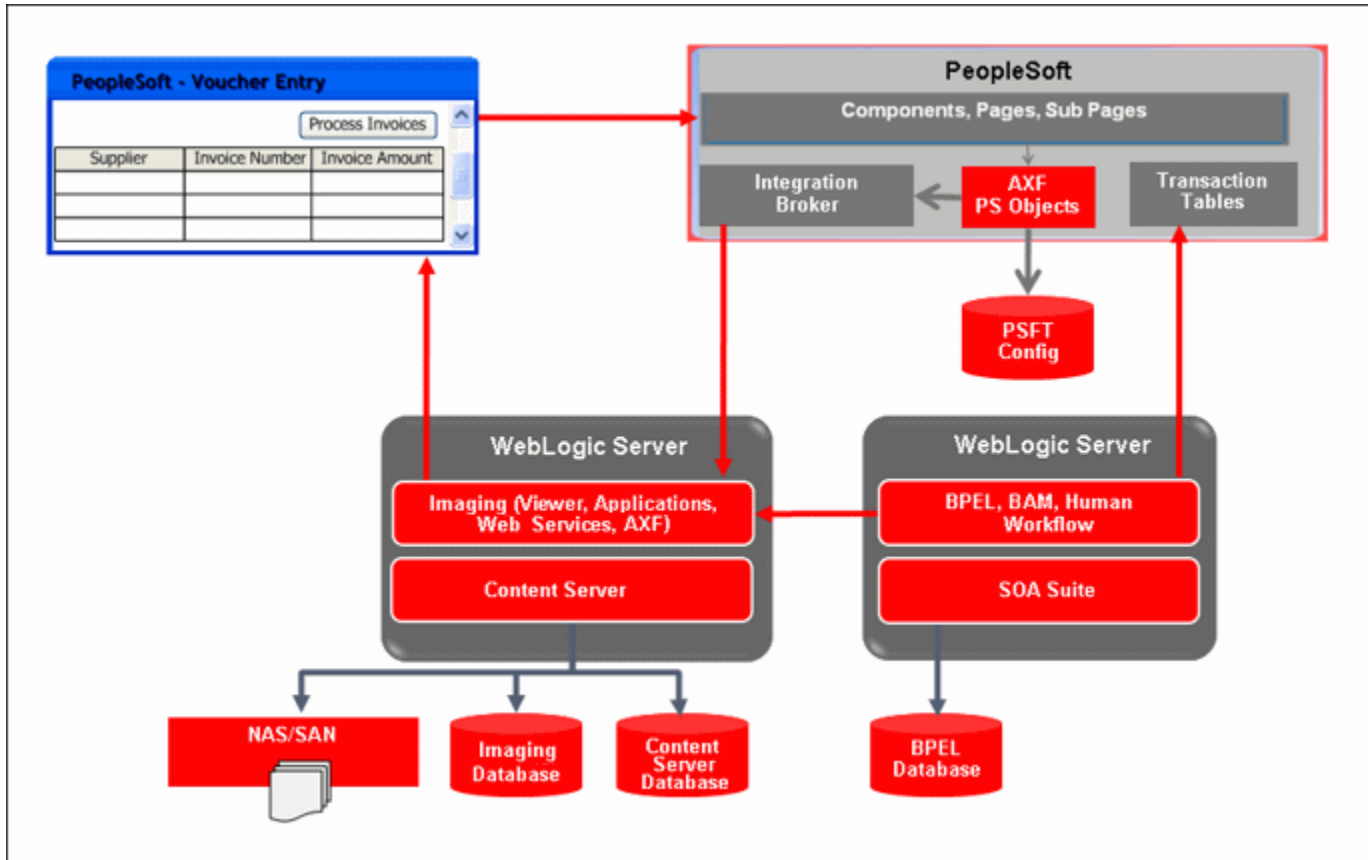


Figure 1-3 illustrates an Imaging solution configuration for the Oracle PeopleSoft adapter.

Figure 1-3 System Architecture for an Oracle PeopleSoft Adapter Imaging Solution



### 1.2.3 About AXF Commands Used by the BPEL Imaging Solution

The reusable AXF commands allow you to implement the functionality described below. For information about these commands, including their parameters and example implementations, see [AXF Commands for the BPEL Imaging Solution](#).

BPEL AXF Command	Description
Open Task	Displays the AXF Task Viewer web page and claims a human workflow task.
Autotask	Displays autotask mode, in which a new human workflow task is automatically claimed in the AXF Task Viewer without displaying the Task List.
Release Task	Releases a human workflow task, and, if configured, executes additional actions.
Complete Task	Completes a human workflow task, and, if configured, updates BPEL payload attribute values and executes additional actions.

BPEL AXF Command	Description
Redirect	Redirects the current AXF web page to any URL or AXF web page specified in the configuration.
Terminate Conversation	Used by an external client to terminate a conversation with AXF. (This command does not include parameters.)
Update Task	Updates BPEL payload field values on a specified human task or values in the XML payload using XPATH.
Update Task From Procedure	Calls a stored procedure using a specified data source and updates values in the BPEL payload using XPATH.
Validate Task	Used to validate BPEL system attribute data or BPEL payload data using the Regular Expression language, and based on validation results, execute a subsequent command.

 **Note:**

You can also deploy custom commands and chained commands to execute through AXF. See [Deploying Custom Commands](#) and [Configuring Chained Commands and User Interface Components](#).

## 1.2.4 About BPEL Imaging User Interface Components

The BPEL Imaging Solution provides the following user interface components. These are web interface components displayed to users and configured through the AXF tables. Once populated, you can modify the components using Imaging's Solution Editor, as described in [Solution Editor](#).

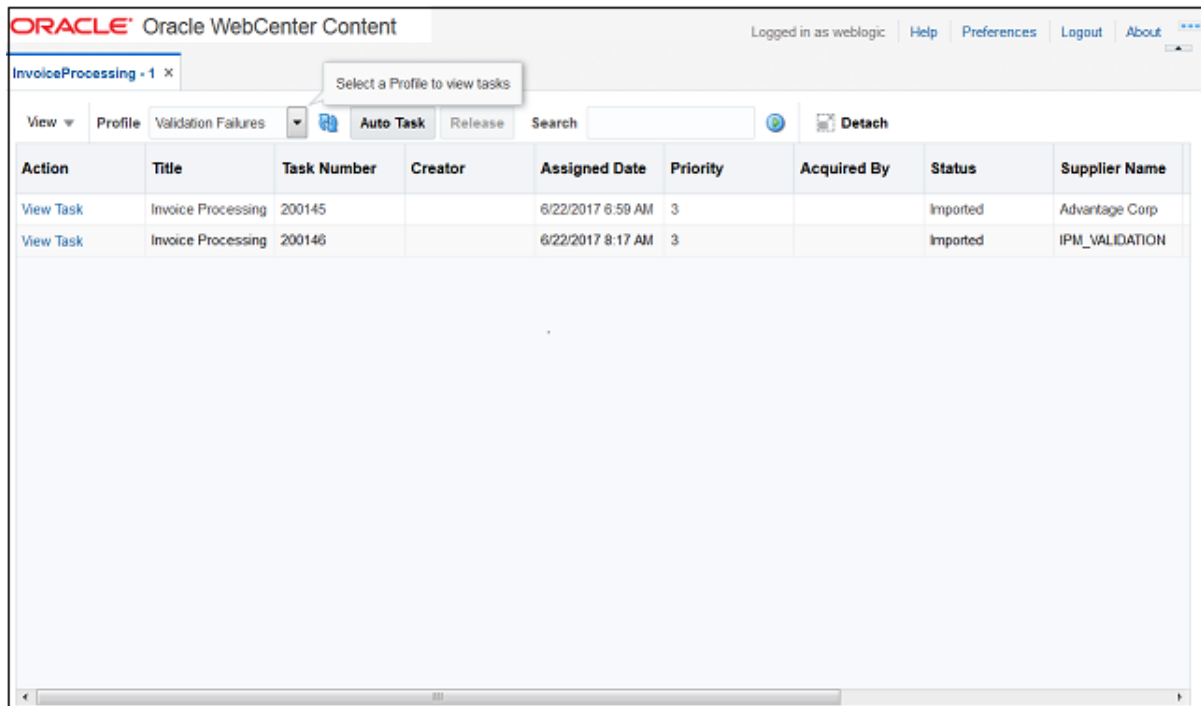
- [About the Task List](#)
- [About the Task Viewer](#)
- [About the Enumeration Picker](#)
- [About the Identity Picker](#)
- [About Comments](#)

### 1.2.4.1 About the Task List

The Task List web page shown in [Figure 1-4](#) displays a list of available tasks to users. It interacts with the AXF infrastructure and BPEL to display the list using views configured in the BPEL Worklist application.

For configuration information, see [Task List Web Tool](#).

**Figure 1-4 Task List Web Tool**



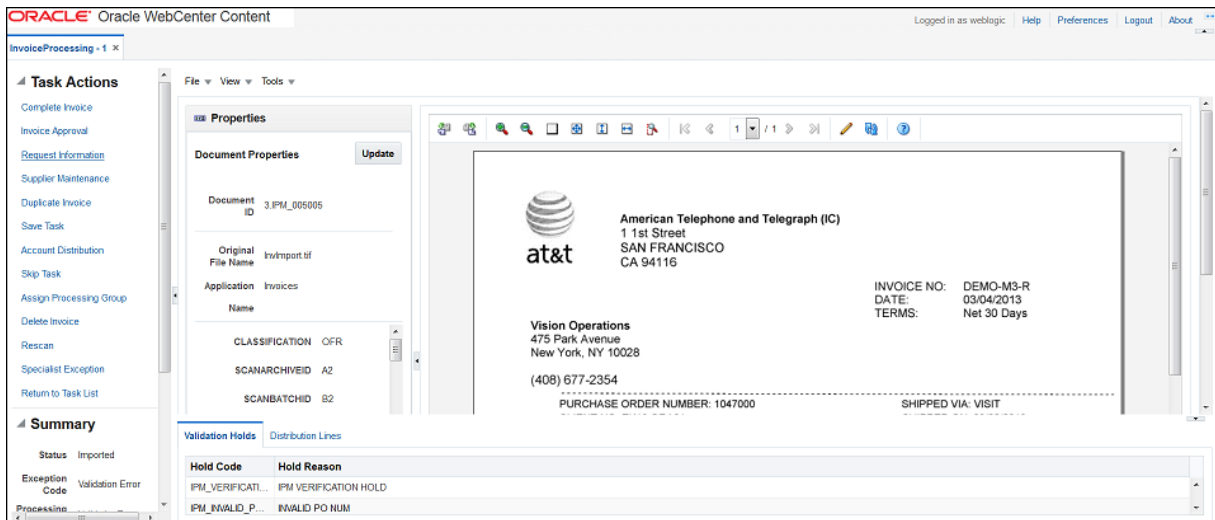
The Task List web tool can also display a list of AXF actions, using AXF action commands.

### 1.2.4.2 About the Task Viewer

The Task Viewer web page shown in [Figure 1-5](#) displays images and metadata values through interaction with the AXF infrastructure, BPEL, Imaging, and the business application. It also typically displays a side menu containing AXF action commands. It may also include a summary section with metadata values, a comments section, and a dynamic data table.

For configuration information, see [Task Viewer Web Tool](#).

Figure 1-5 Task Viewer Web Tool

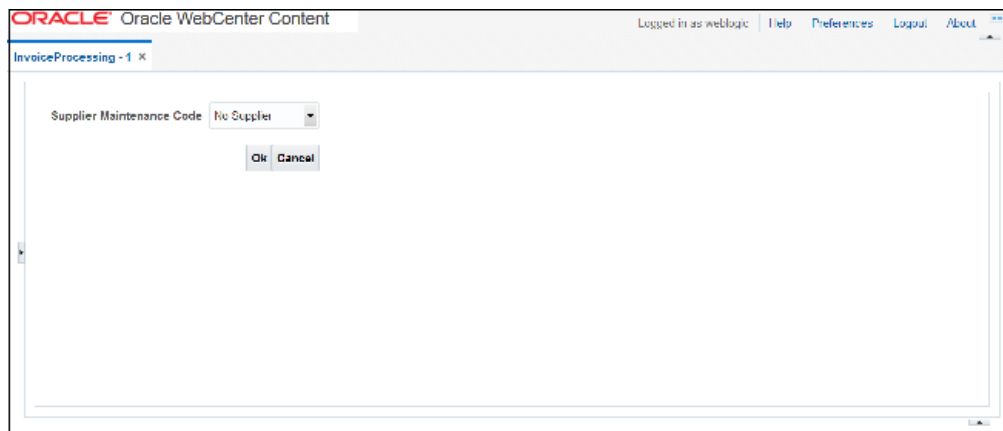


### 1.2.4.3 About the Enumeration Picker

The Enumeration Picker web page shown in [Figure 1-6](#) enables users to select from a list of enumerated values.

For configuration information, see [Enumeration Picker Web Tool](#).

Figure 1-6 Enumeration Picker Web Tool

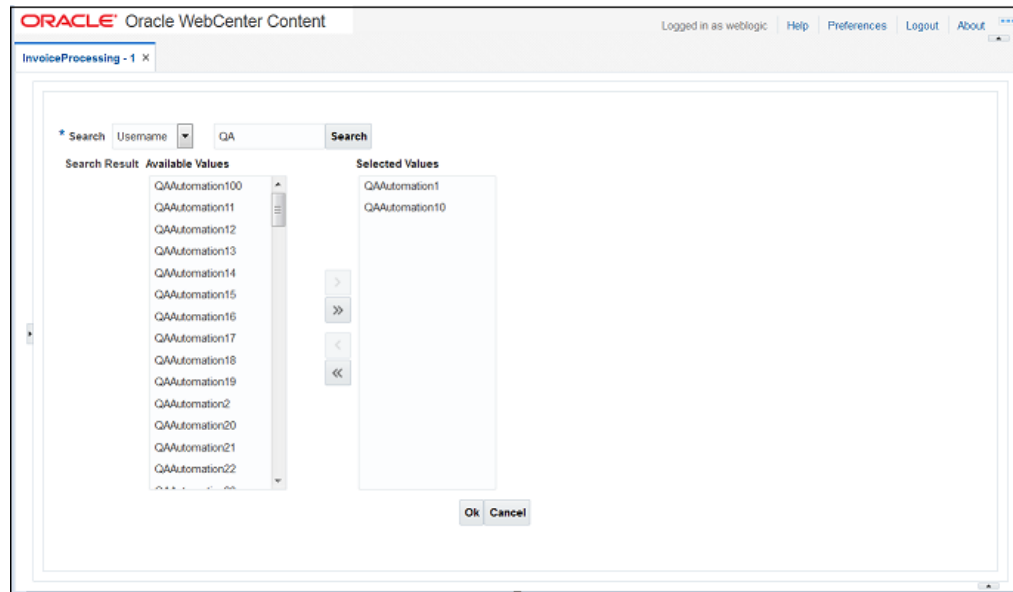


### 1.2.4.4 About the Identity Picker

The Identity Picker web page shown in [Figure 1-7](#) enables users to select one or more users or groups from an identity store configured for BPEL. After the user chooses an identity, AXF typically performs a related, configurable action. Most likely, it assigns or delegates a task to the selected user or group of users. For example, a business user who encounters a problem with a transaction might select an exception handler to send the transaction to, after entering a comment that describes the problem.

For configuration information, see [Identity Picker Web Tool](#).

**Figure 1-7 Identity Picker Web Tool**



### 1.2.4.5 About Comments

The Comments web page shown in [Figure 1-9](#) enables users to enter comments related to the human task during the transaction's processing. Administrators can display comments on any AXF web page that shows data from a single task, such as the Task Viewer shown in [Figure 1-5](#). Comments persist for the entire process, allowing users to view and add comments. BPEL workflow task saves comments using its native comments capabilities.

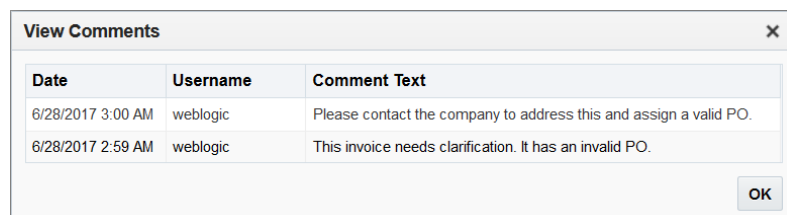
To view comments, users click the **View Comments** icon on the AXF web page, as shown below and in [Figure 1-5](#). To add a comment, users click the **Add Comment** icon.

**Figure 1-8 View Comments Icon (left), Add Comment Icon (right)**



For configuration information, see [Comments](#) and [AXF\\_METADATA\\_BLOCKS Table](#).

**Figure 1-9 Comments Web Tool**



## 1.3 About the Managed Attachments Solution

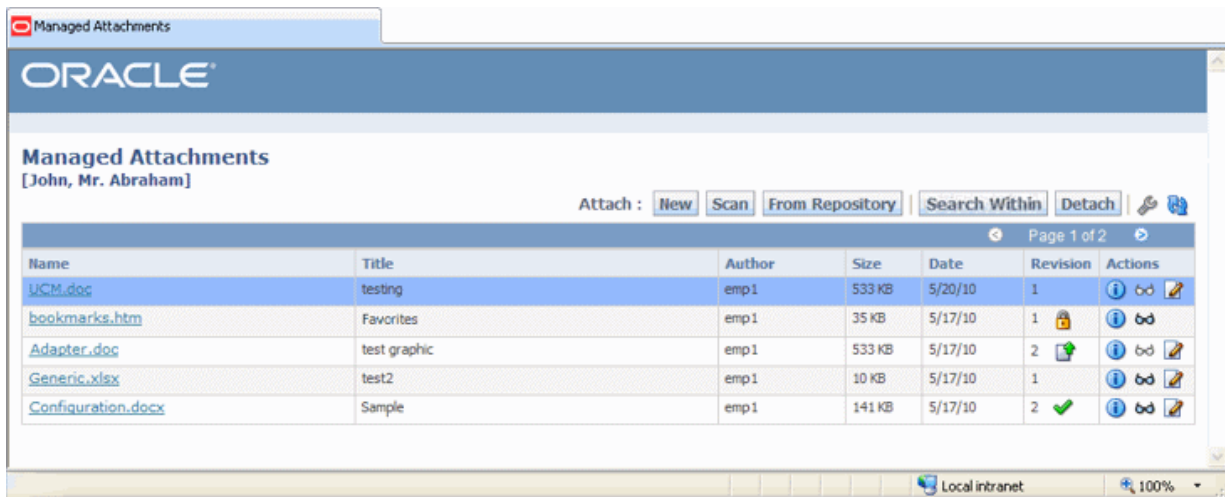
With this solution, Content Server documents are listed as managed attachments to business application entities in a customizable window launched from a link, button, or menu, depending on business application configuration. For example, a business application user displays an Employee record, invokes the Managed Attachment functionality by clicking a button, and attaches a passport image and supporting identity documents.

 **Note:**

In addition to applications built using Oracle E-Business Suite Forms, Oracle Applications Framework (OAF), and PeopleSoft, the Managed Attachments solution can be integrated with other business applications using the Enterprise Application Adapter Framework, as described in [Configuring the Enterprise Application Adapter Framework](#).

The Managed Attachments Solution, shown in [Figure 1-10](#), enables business users to attach, scan, and retrieve attachments stored in a Content Server repository. An Oracle WebCenter Content Server repository enables users throughout an enterprise to view, collaborate on, and retire content, ensuring that content is secure, accurate, and up-to-date.

**Figure 1-10** Managed Attachments Page



This section covers the following topics:

- [Business User View of the Managed Attachments Solution](#)
- [About the AXF Command and Service Used By the Attachments Solution](#)
- [Managed Attachments Solution System Architecture](#)

## 1.3.1 Business User View of the Managed Attachments Solution

Business users can perform these tasks in the Managed Attachments solution, as an extension to their business application environment:

- Check in new documents to Content Server and attach them to the selected business application entity
- Scan and import documents using Oracle WebCenter Enterprise Capture, attaching them to the selected business application
- Open documents in their native application, Web-viewable format, or AutoVue viewer (if configured)
- Detach documents from the selected business application entity
- Search Content Server and attach documents to the selected business application entity from the Content Server repository
- Check out documents, locking them to changes by other users
- Modify a document's metadata values
- If configured, view a previous attached revision and update the attachment revision
- View an attached document's information

 **Note:**

For details about Managed Attachments Solution user tasks, see Using the BPEL Imaging Solution in the *Using the Application Adapters for Oracle WebCenter*.

### 1.3.1.1 Attachments Scenario 1: Capturing Identity Documents

A Managed Attachments solution configured for capturing employee identity documents such as passports might work as follows:

1. From the business application, a user retrieves a record such as an employee record.
2. The user launches the Managed Attachments solution, by selecting a command or clicking a link or button called **Scan Employee Document**.
3. Oracle WebCenter Enterprise Capture launches and automatically initiates a scan (if a scanner is attached to the desktop) or enables the user to upload electronic images from desktop.
4. The user selects attachment settings, clicks **Scan Document**, then enters metadata (index) values in Oracle WebCenter Enterprise Capture to store with the images.
5. The user clicks **Release**, and the captured document images and their metadata are transmitted from Oracle WebCenter Enterprise Capture to Content Server.
6. The user clicks the **Refresh** button to see the newly scanned or imported document listed as attached to the selected employee record.



### 1.3.1.2 Attachments Scenario 2: Viewing and Editing Identity Documents

A Managed Attachments solution configured for viewing employee identity documents might work as follows:

1. From the business application, the user retrieves an employee record.
2. The user launches the Managed Attachments solution, by selecting a command or clicking a link or button called **View Employee Documents**.
3. The Managed Attachments page displays, listing attachments for the employee record.
4. An attachment may show its revision number, and if it was checked out by the user or another user. If revision-specific mode has been configured and an older revision is attached, the user can either view the older attached revision or view the newer revision and make it the new attached version.
5. The user selects an attached document's **Edit** icon. As the user makes updates to the document, it is checked out to the user and other users cannot edit it. When the user checks in the revised document, its revision number is incremented.
6. The document displays in Content Server (or the AutoVue viewer), where the user can view its images, and with appropriate permissions, apply annotations or redactions.

### 1.3.2 About the AXF Command and Service Used By the Attachments Solution

The Managed Attachments solution uses an AXF solution namespace called **UCM\_Managed\_Attachments** to orchestrate user requests from the business application to display the Managed Attachments user interface for the Content Server repository.

- When the business application user activates the Managed Attachments command from a business application entity, the adapter makes an AXF request. The solution supports a single AXF command namespace called **UCM\_Managed\_Attachments**, which invokes the **AF\_GRANT\_ACCESS** command.
- The **AF\_GRANT\_ACCESS** command implements the **AF\_GRANT\_ACCESS** service. This Content Server service temporarily grants a user who has logged into the business application access to all Content Server documents associated with the selected business application entity and to which the user has security group access. This service also returns an AXF response containing a Managed Attachments URL to invoke the Content Server **attachments framework search**. This framework search lists all documents associated with the business application entity.
- With the returned URL, the adapter opens the Managed Attachments browser window for the business application user, also displaying key values (AFLabel) for the business application entity with which the attachment list is associated, and optionally passing in metadata values from the business application to Content Server.

#### How Content Server Access is Granted to the Business Application User

The adapter uses a temporary authorization mechanism for managed attachments access. Communicating through a trusted RIDC mechanism, AXF invokes the AF\_GRANT\_ACCESS service with the application entity and user information needing authorization. The AF\_GRANT\_ACCESS service grants access to the user for the specified period, then ends the user session.

### 1.3.3 Managed Attachments Solution System Architecture

The figures that follow illustrate the Managed Attachments architecture when installed for Oracle E-Business Suite OAF page use (Figure 1-11), and Oracle PeopleSoft use (Figure 1-12).

**Figure 1-11 System Architecture for an Oracle E-Business Suite OAF Managed Attachments Solution**

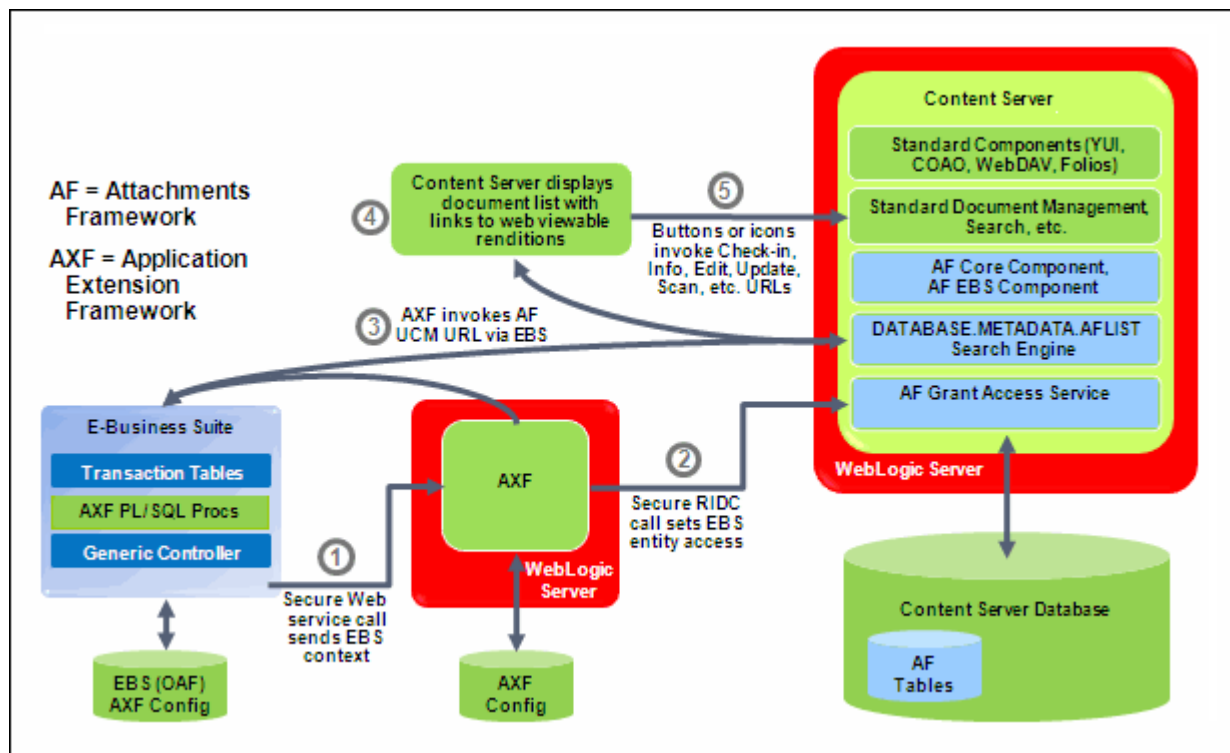
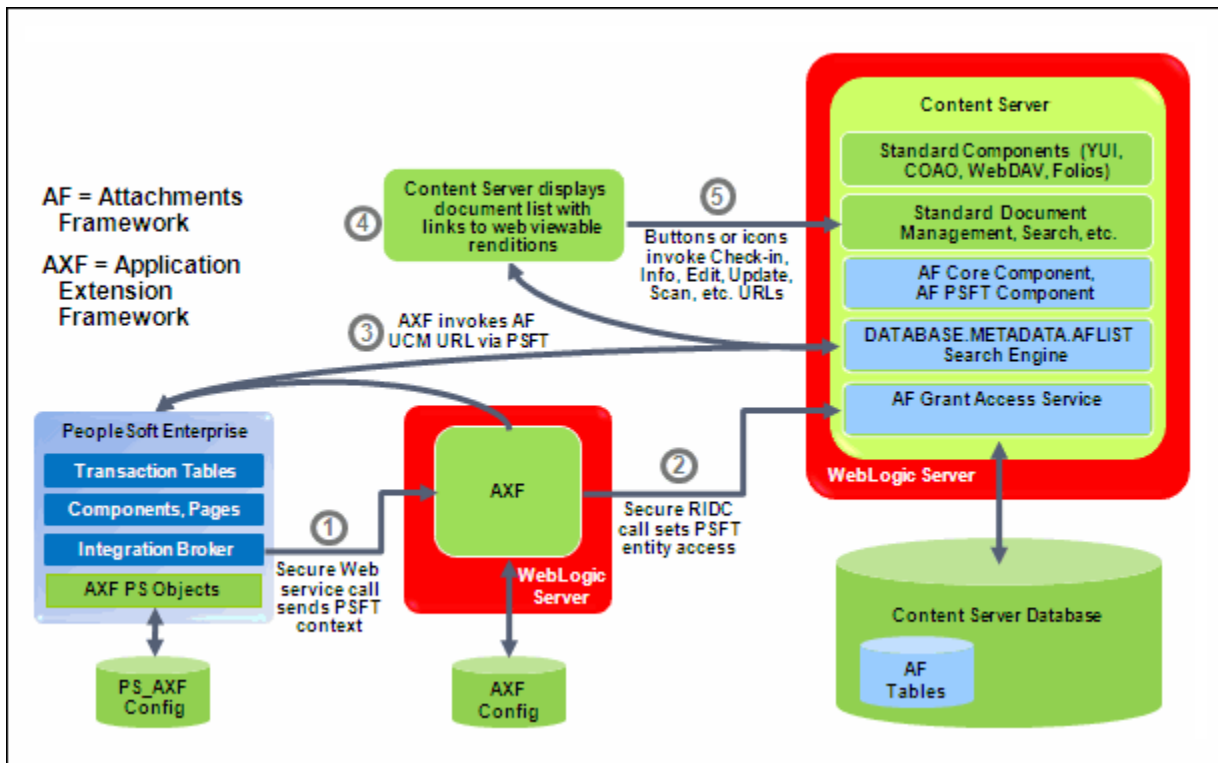


Figure 1-12 System Architecture for an Oracle PeopleSoft Managed Attachments Solution



## 1.4 About Adapter Components

Following are the main components of the application adapters:

- [Business Application Plug-In](#)
- [AXF Infrastructure](#)
- [AXF User Interface Components](#)
- [Content Server Components \(Managed Attachments\)](#)
- [AXF Solution Accelerators](#)

### 1.4.1 Business Application Plug-In

This portion consists of a business application plug-in: Oracle E-Business Suite, Oracle PeopleSoft, both, or another business application.

- **Oracle E-Business Suite:** Configuring the Oracle E-Business Suite plug-in consists of running PL/SQL scripts against the Oracle E-Business Suite database that populate tables and configure functionality. See [Configuring the Oracle E-Business Suite Plug-In](#). AXF-related Oracle E-Business Suite tables enable AXF components on Oracle E-Business Suite forms or pages.
  - For **Forms** configurations, you also upload files to the Oracle E-Business Suite system that integrate custom actions with pre-existing Oracle E-Business Suite Forms.

- For **OAF** configurations (available for Managed Attachments only), you import files to the MDS repository and add a Managed Attachments button via OAF page personalization.
- **PeopleSoft:** Configuring the Oracle PeopleSoft plug-in consists of importing the Oracle PeopleSoft project, configuring the Integration Broker to communicate with AXF, setting user roles, and enabling AXF functionality on Oracle PeopleSoft pages. See [Configuring the Oracle PeopleSoft Plug-In](#). AXF-related Oracle PeopleSoft tables enable AXF components on Oracle PeopleSoft pages.
- **Other business application:** A generic component called the Enterprise Application Adapter Framework allows you to customize the Managed Attachments solution for use with a business application other than Oracle E-Business Suite or Oracle PeopleSoft. For more information, see [Configuring the Enterprise Application Adapter Framework](#).

## 1.4.2 AXF Infrastructure

The AXF integration infrastructure employs a service layer that handles requests from business application integration adapters. The infrastructure is included in Oracle WebCenter Content installation, and AXF tables are automatically created during installation.

The AXF infrastructure contains the following components:

- [Solution Mediator](#)
- [AXF Request /Response](#)
- [Command Mediator](#)
- [AXF Commands](#)
- [Conversation](#)

### 1.4.2.1 Solution Mediator

The solution mediator receives AXF requests from the business application integration adapters. It implements a simple AXF request/response protocol to delegate abstract functional requests from the business application integration adapters to AXF command components that implement business functionality. The solution mediator is responsible for facilitating those services that are common across all AXF request/response, including invoking the Command Mediator to service the AXF request, managing the conversation, and general error handling.

### 1.4.2.2 AXF Request /Response

The AXF request provides a functional request, defined by a solution namespace (representing a work thread, such as DocumentProcessing) and a command namespace (representing a service, such as StartProcessing). The AXF request may include optional arguments. The AXF response contains instructions to be performed by the requester as well as the Conversation ID (CID) used to synchronize activity between the business application and AXF solution application. The business application integration adapter stores the returned CID and includes it in subsequent requests within the same solution namespace.

### 1.4.2.3 Command Mediator

The command mediator maps logical functional requests to AXF commands based on the AXF request's solution namespace and command namespace.

### 1.4.2.4 AXF Commands

AXF commands implement business functionality. Commands may consume arguments provided by the request and return instructions to the requester through the AXF response.

- The BPEL Imaging solution uses multiple AXF commands, as described in [About AXF Commands Used by the BPEL Imaging Solution](#).
- The Managed Attachments solution uses a single AXF command that implements Content Server services that temporarily display and provide access to documents associated with a business application entity. See [About the AXF Command and Service Used By the Attachments Solution](#).

### 1.4.2.5 Conversation

The conversation maintains the shared state between the business application and AXF solution applications. The conversation is referenced by both applications by the CID returned to the business application in the AXF response and provided as a parameter to the AXF solution application.

## 1.4.3 AXF User Interface Components

The adapter provides user interface components for the imaging solution, such as a task list and task detail (that includes subcomponents such as enumeration control, identity browser, metadata display, and comments).

For the **BPEL imaging solution**, user interface components (task list and task viewer) are configured through the AXF (WebCenter Imaging) database tables. Solution developers customize the solution using Imaging's Solution Editor or by modifying the AXF tables. See [About BPEL Imaging User Interface Components](#).

## 1.4.4 Content Server Components (Managed Attachments)

For the Managed Attachments solution, the adapter includes Content Server components bundled in ZIP files that you install and enable using Component Manager. They include the AppAdapter framework core files. See [Configuring the Content Server Components](#).

## 1.4.5 AXF Solution Accelerators

Oracle provides implementation accelerators for specific functions, such as automating invoice and receipt processing using workflows with associated approval rules, data entry forms, and reports.

 **Note:**

To obtain a solution implementation accelerator, contact your systems integrator, Oracle Consulting, or Oracle Support.

## 1.5 About Adapter Security and Authentication

The adapters provide multiple security and authentication levels, which vary depending on the solution (BPEL Imaging or Managed Attachments) and the business application, as identified in [Table 1-1](#).

**Table 1-1 Security Controls for the Adapter**

Authentication/ Security Level	Business Applications	Supported Solutions	Description	Configuration Information
Web Service Authentication (WSS/SOAP)	Oracle E- Business Suite and Oracle PeopleSoft	BPEL Imaging and Managed Attachments	Occurs when web service calls are made to AXF. The solutions support user authentication against the AXF solution mediator web services using a user name token security installed on the application server on which AXF resides. <ul style="list-style-type: none"> <li>In Oracle E-Business Suite, set user name token authentication using an AXF_SOAP_POLICY key in the properties table (AXF_PROPERTIES or OAF_AXF_PROPERTIES).</li> <li>In Oracle PeopleSoft, configure the Integration Broker node that communicates to AXF with user name token authentication.</li> </ul>	For Oracle E-Business Suite, see <a href="#">Securing Communications Through SOAP Security</a> . For Oracle PeopleSoft, see <a href="#">Configuring Communication for Managed Attachments Web Service</a> .
Web Service Authentication (WSS/SOAP)	Oracle E- Business Suite and Oracle PeopleSoft	Managed Attachments	Occurs when web service calls are made to Content Server. The solutions support user authentication against the Content Server web services using a user name token security. <ul style="list-style-type: none"> <li>In Oracle E-Business Suite, set user name token authentication using an AXF_SOAP_POLICY key in the properties table (AXF_PROPERTIES or OAF_AXF_PROPERTIES).</li> <li>In Oracle PeopleSoft, configure the Integration Broker node that communicates to AXF with user name token authentication.</li> </ul>	For Oracle E-Business Suite, see <a href="#">Securing Communications Through SOAP Security</a> . For Oracle PeopleSoft, see <a href="#">Configuring Communication for Managed Attachments Web Service</a> .

Table 1-1 (Cont.) Security Controls for the Adapter

Authentication/ Security Level	Business Applications	Supported Solutions	Description	Configuration Information
SSL	Oracle E-Business Suite and Oracle PeopleSoft	BPEL Imaging and Managed Attachments	For Oracle E-Business Suite, configure SSL settings through the AXF_CONFIGS and AXF_PROPERTIES tables (Forms) or OAF_AXF_CONFIGS and OAF_AXF_PROPERTIES tables (OAF). For Oracle PeopleSoft, configure SSL settings via Integration Broker. For both Oracle E-Business Suite and Oracle PeopleSoft, configure web server-based digital certificates on the business application and Oracle WebCenter Content side.	For Oracle E-Business Suite, see <a href="#">Securing Communications Through SSL (Oracle E-Business Suite)</a> . For Oracle PeopleSoft, see <a href="#">Securing Communications Through SSL (Oracle PeopleSoft)</a> .
AXF to Content Server	Oracle E-Business Suite and Oracle PeopleSoft	Managed Attachments	Enable trusted communication between the host on which AXF is running and the Content Server.	See <a href="#">Securing Communications Between AXF and Content Server</a> .
Document Security	Oracle E-Business Suite and Oracle PeopleSoft	Managed Attachments	Users specify private or shared access to a document upon attachment (check-in to Content Server). <ul style="list-style-type: none"> <li>Users can access private documents only through the Managed Attachments page.</li> <li>Any Content Server user with the document's security group access can access shared documents.</li> </ul>	See <a href="#">Configuring Document Security</a> .

## 1.6 Adapter System Requirements

The adapter is composed of optional solutions installed over a base configuration of AXF, Imaging, and Content Server files standard to adapters that use AXF functionality. General requirements for the adapter are listed in this section, and supported configuration and certification information is available at:

<http://www.oracle.com/technetwork/middleware/webcenter/content/documentation/documentation-155348.html>



### Note:

When beginning configuration, be sure to check MyOracleSupport for the latest patches to apply.

General requirements include:

- [Oracle E-Business Suite](#)
- [Oracle PeopleSoft Enterprise](#)

- [SOA \(Imaging Solutions Only\)](#)
- [Additional Managed Attachments Requirements](#)

## 1.6.1 Oracle E-Business Suite

- A fully functioning Oracle E-Business Suite system. The Oracle E-Business Suite application adapter supports both Oracle E-Business Suite Forms (Imaging and Managed Attachments) and OAF web pages (Managed Attachments only). See the certification matrix for supported releases. Also see the Oracle E-Business Suite requirements in [System Requirements for the Managed Attachments Solution](#).
- For Forms applications, Oracle E-Business Suite Forms Builder is required for .PLL compilation. Specific releases are listed in the matrix.
- To avoid duplicate logins, Oracle Single Sign-On or Oracle Access Manager is required. For more information, see Introduction to Oracle Platform Security Services in *Securing Applications with Oracle Platform Security Services*.

 **Note:**

If using Oracle Single Sign-On, an Oracle Identity Management (OIM) / Oracle Internet Directory (OID) Server is required.

## 1.6.2 Oracle PeopleSoft Enterprise

- A fully functioning Oracle PeopleSoft system, including PeopleTools. See the certification matrix for supported releases.
- To avoid duplicate logins, Oracle Single Sign-On or Oracle Access Manager is required. For more information, see Introduction to Oracle Platform Security Services in *Securing Applications with Oracle Platform Security Services*.

 **Note:**

If using Oracle Single Sign-On, an Oracle Identity Management (OIM) / Oracle Internet Directory (OID) Server is required.

## 1.6.3 SOA (Imaging Solutions Only)

For either imaging solution, SOA is required, along with available patch sets. A BPEL server instance is also required. BPEL is part of SOA.

 **Note:**

SOA is not needed if configuring the Managed Attachments Solution only.





**Note:**

Specific version mapping between Oracle WebCenter Content (formerly Oracle Enterprise Content Management) and SOA Suite is required. Refer to the following certification information at:

<http://www.oracle.com/technetwork/middleware/webcenter/content/documentation/documentation-155348.html>

## 1.6.4 Additional Managed Attachments Requirements

The Managed Attachments Solution has additional requirements, listed in [System Requirements for the Managed Attachments Solution](#).

## 1.7 Adapter Configuration Roadmap

After installing the adapter, you must configure the plug-in for Oracle E-Business Suite and Oracle PeopleSoft, the AXF settings, the BPEL Imaging solution, and the Managed Attachments solution.

The major configuration steps include:

- 1. If configuring the adapter for Oracle E-Business Suite, configure the Oracle E-Business Suite plug-in.**

Tasks	Refer To
Configure the Oracle E-Business Suite database by running PL/SQL scripts.	<a href="#">Configuring the Oracle E-Business Suite Database</a>
Configure one or both Oracle E-Business Suite plug-ins: <ul style="list-style-type: none"> <li>• For Forms configuration, compile Oracle E-Business Suite Forms by modifying PLL files.</li> <li>• For OAF configuration, add the Managed Attachments button to OAF pages via personalization.</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Compiling Oracle E-Business Suite Forms (Forms)</a></li> <li>• <a href="#">Configuring Oracle Application Framework (OAF) Pages Via Personalization (OAF)</a></li> </ul>
Secure Oracle E-Business Suite to AXF communications via SOAP security and SSL.	<a href="#">Securing Adapter Communications for Oracle E-Business Suite</a>
Configure Oracle E-Business Suite logging.	<a href="#">Configuring Oracle E-Business Suite Logging</a>

- 2. If configuring the adapter for Oracle PeopleSoft, configure the PeopleSoft plug-in.**

Tasks	Refer To
Import the Oracle PeopleSoft integration project.	<a href="#">Importing the Oracle PeopleSoft Project</a>

Tasks	Refer To
Configure Integration Broker to communicate with AXF securely and configure AXF access for Oracle PeopleSoft users.	<a href="#">Configuring and Securing Adapter Communications for Oracle PeopleSoft</a>
Place AXF components on Oracle PeopleSoft pages.	<a href="#">Placing AXF Components on Oracle PeopleSoft Pages</a>
Configure Oracle PeopleSoft logging.	<a href="#">Configuring Oracle PeopleSoft Logging</a>

### 3. Configure AXF settings.

Tasks	Refer To
Configure AXF logging.	<a href="#">Configuring Logging for AXF for BPEL</a>

### 4. If configuring the BPEL Imaging solution, complete these steps.

Tasks	Refer To
Configure the BPEL connection.	<a href="#">Configuring the BPEL Connection</a>
Configure the AXF tables or apply a solution implementation accelerator. After initial configuration, use Imaging's Solution Editor to edit user interface components such as the Task List and Task Viewer.	<a href="#">Configuring the AXF Tables or Applying a Solution Accelerator</a> <a href="#">Solution Editor</a>
Test functionality using the AXF driver page.	<a href="#">Testing Functionality Using the AXF Driver Page</a>
Customize Imaging functionality as needed.	<a href="#">Configuring Imaging Solution Options</a>

### 5. If configuring the Managed Attachments solution, complete these steps.

Tasks	Refer To
Ensure your configuration meets additional Managed Attachments system requirements.	<a href="#">System Requirements for the Managed Attachments Solution</a>
Run Managed Attachments installation scripts.	<a href="#">Running Configuration Scripts to Enable Managed Attachments</a>
Configure Content Server components.	<a href="#">Configuring the Content Server Components</a>
If configuring Managed Attachments for a business application other than Oracle E-Business Suite or Oracle PeopleSoft, configure the Enterprise Application Adapter Framework.	<a href="#">Configuring the Enterprise Application Adapter Framework</a>
Configure Managed Attachments variables.	<a href="#">Configuring Managed Attachments Settings</a>

<b>Tasks</b>	<b>Refer To</b>
Customize Managed Attachments functionality as needed.	<a href="#">Customizing the Managed Attachments Solution</a>
Configure authentication and security.	<a href="#">Configuring Authentication and Security</a>
Configure document viewing with AutoVue (optional).	<a href="#">Configuring Oracle AutoVue Document Viewing</a>
Configure document scanning/importing with Oracle WebCenter Enterprise Capture or Oracle Distributed Document Capture (optional).	<a href="#">Configuring Oracle WebCenter Enterprise Capture, Configuring Oracle Distributed Document Capture</a>

# 2

## Configuring the Oracle E-Business Suite Plug-In

You can configure the Oracle E-Business Suite plug-in by configuring the Oracle E-Business Suite database, compiling the Oracle E-Business Suite Forms, and configuring the Oracle Application Framework (OAF) pages through personalization. You can also secure adapter communications for the Oracle E-Business Suite through SOAP security and SSL.

Configuring the Oracle E-Business Suite portion of AXF requires an active connection to the Oracle E-Business Suite database, general database experience, knowledge of Oracle E-Business Suite Forms Builder, and familiarity in personalizing the OAF pages.

### Note:

If installing adapter solutions for Oracle PeopleSoft but not Oracle E-Business Suite, skip this chapter and complete the steps described in [Configuring the Oracle PeopleSoft Plug-In](#).

This chapter covers the following topics:

- [Configuring the Oracle E-Business Suite Database](#)
- [Compiling Oracle E-Business Suite Forms](#)
- [Configuring Oracle Application Framework \(OAF\) Pages Via Personalization](#)
- [Securing Adapter Communications for Oracle E-Business Suite](#)
- [Configuring Oracle E-Business Suite Logging](#)
- [Setting User Locales](#)
- [Configuring Solutions for Oracle E-Business Suite](#)
- [Post-Upgrade Steps for Managed Attachments Solution](#)
- [Uninstalling AXF From Oracle E-Business Suite](#)

### 2.1 Configuring the Oracle E-Business Suite Database

The adapter uses an Oracle E-Business Suite database to store PL/SQL procedures and Oracle E-Business Suite configuration information. Consult your local DBA for assistance with these tasks. The instructions in this section assume the use of SQL\*PLUS, but you can use any tool capable of querying the Oracle Database.

- [Creating the AXF Oracle E-Business Suite Configuration Schema User \(AXF\)](#)
- [PL/SQL Procedures Provided](#)
- [Running the PL/SQL Scripts](#)

## 2.1.1 Creating the AXF Oracle E-Business Suite Configuration Schema User (AXF)

Follow these steps to create a database user for use by AXF within the Oracle E-Business Suite database.

### Note:

If using Oracle E-Business Suite 11i and Oracle Database 9i, you must install the Oracle XML Database XDB Package into the Oracle E-Business Suite database. (This requirement applies only when using Oracle E-Business Suite 11i and Oracle Database 9i.) For information about installing the Oracle XML Database XDB Package, see the Oracle Database 9i documentation.

1. Create a user named `AXF`.  
A system account user name and password is required to create the user. For assistance creating the user, contact your DBA.
2. Assign the configuration schema user the following access privileges:
  - Create table
  - Create sequence
  - Create type
  - Create public synonym
  - Create session
  - Create procedure
  - Unlimited tablespace

## 2.1.2 PL/SQL Procedures Provided

[Table 2-1](#) lists the PL/SQL scripts to run. In some cases, separate Oracle E-Business Suite release 11 and 12 scripts are provided. Scripts whose names begin with **OAF** apply to OAF configurations.

It is recommended that you run all scripts for your Oracle E-Business Suite release as described in [Running the PL/SQL Scripts](#) regardless of whether you are configuring Forms and/or OAF applications.

**Table 2-1 PL/SQL Procedures Provided With Oracle E-Business Suite Plug-In**

PL/SQL Procedure	Applies To	Description
AXF_CREATE_TABLES_SYNONYM	Forms OAF	These scripts create the tables and synonyms used by AXF for Forms and OAF applications. In addition, OAF_AXF_CREATE_TABLES_SYNONYM.sql populates the OAF_AXF_PROPERTIES table.

**Table 2-1 (Cont.) PL/SQL Procedures Provided With Oracle E-Business Suite Plug-In**

PL/SQL Procedure	Applies To	Description
AXF_EBS_PROPERTIES_DATA	Forms	Populates the AXF_PROPERTIES table with security information for various Oracle E-Business Suite calls to AXF.
AXF_APPS_INIT	Forms	Required for Oracle E-Business Suite attachment for Forms applications.
AXF_ADD_EBS_ATTACHMENT_PROC_R11 AXF_ADD_EBS_ATTACHMENT_PROC_R12	Forms	Creates a stored procedure that adds an attachment to a transaction in Oracle E-Business Suite Forms applications.
AXF_MANAGED_ATTACHMENT_DATA AXF_MANAGED_ATTACHMENT_AVAILABLE AXF_MANAGED_ATTACHMENT_VALUES	Forms	Required for document attachment, for Forms applications.
AXF_SOAP_CALL_PROC	Forms OAF	This script creates a stored procedure to make SOAP calls from PL/SQL.

## 2.1.3 Running the PL/SQL Scripts

Follow these steps to configure the Oracle E-Business Suite database.

1. Locate the scripts in the following folders. Separate folders are provided for Oracle E-Business Suite Forms releases 11 and 12.

- For Oracle E-Business Suite Forms:

*MW\_HOME/wccontent/axf/adapters/ebs/R11/*

*MW\_HOME/wccontent/axf/adapters/ebs/R12/*

- For Oracle E-Business Suite OAF:

*MW\_HOME/wccontent/axf/adapters/ebs/oaf/*

2. Using SQL\*PLUS, log in to the Oracle E-Business Suite database as the AXF Oracle E-Business Suite configuration schema user (AXF).

This user was previously created, as described in [Creating the AXF Oracle E-Business Suite Configuration Schema User \(AXF\)](#).

3. As the AXF user, execute the **AXF\_CREATE\_TABLES\_SYNONYM** script from the applicable Oracle E-Business Suite location.

To execute the script, enter:

```
@AXF_CREATE_TABLES_SYNONYM.sql
```

Verify that the following tables were created: AXF\_COMMAND\_PARAMETERS, AXF\_COMMANDS, AXF\_CONFIGS, AXF\_PROPERTIES, and AXF\_FND\_MAP.

4. As the AXF user, customize and execute the **OAF\_AXF\_CREATE\_TABLES\_SYNONYM** script from the applicable Oracle E-Business Suite location.

Before executing the script, set the script's `AXF_OAF_REDIRECT_PAGE_URL` value so that it identifies the Oracle E-Business Suite system's hostname and port (typically 8000).

To execute the script, enter:

```
@OAF_AXF_CREATE_TABLES_SYNONYM.sql
```

Verify that the following tables were created: `OAF_AXF_CMD_PARAMS`, `OAF_AXF_COMMANDS`, `OAF_AXF_CONFIGS`, and `OAF_AXF_PROPERTIES`.

 **Note:**

The `AXF_CREATE_TABLES_SYNONYM` and `OAF_AXF_CREATE_SYNONYM` scripts insert rows into the `AXF_PROPERTIES` and `OAF_AXF_PROPERTIES` tables, respectively. By default, the `AXF_SOAP_SECURITY` security parameter is set to `TRUE`. For SOAP security to work, you must store the SOAP user's password in the `FND_VAULT`. See [Securing Adapter Communications for Oracle E-Business Suite](#) for information on storing the SOAP user name and password in the Oracle E-Business Suite `FND_VAULT`.

5. As the AXF user, execute the **AXF\_EBS\_PROPERTIES\_DATA** script from the applicable Oracle E-Business Suite location.

To execute the script, enter:

```
@AXF_EBS_PROPERTIES_DATA.sql
```

6. Log in as the APPS user.
7. As the APPS user, execute the **AXF\_APPS\_INIT** script from the applicable Oracle E-Business Suite location.

Execute the script by entering:

```
@AXF_APPS_INIT.sql
```

8. As the APPS user, execute the **AXF\_ADD\_EBS\_ATTACHMENT\_PROC\_R12** or **AXF\_ADD\_EBS\_ATTACHMENT\_PROC\_R11** script from the applicable Oracle E-Business Suite location.

Execute the script by entering the command appropriate for your version:

```
@AXF_ADD_EBS_ATTACHMENT_PROC_R12.sql
```

```
@AXF_ADD_EBS_ATTACHMENT_PROC_R11.sql
```

 **Note:**

This compilation may result in warnings, which you can ignore.

9. As the APPS user, execute the **AXF\_MANAGED\_ATTACH\_AVAIL**, **AXF\_MANAGED\_ATTACH\_VALUES**, and **AXF\_MANAGED\_ATTACHMENT\_DATA** scripts from the applicable Oracle E-Business Suite location.

Execute the scripts by entering:

```
@AXF_MANAGED_ATTACH_AVAIL.sql  
@AXF_MANAGED_ATTACH_VALUES.sql  
@AXF_MANAGED_ATTACHMENT_DATA.sql
```

10. As the APPS user, execute the **AXF\_SOAP\_CALL\_PROC** script from the applicable Oracle E-Business Suite location.

Execute the script by entering:

```
@AXF_SOAP_CALL_PROC.sql
```

 **Note:**

This compilation may result in warnings, which you can ignore.

## 2.2 Compiling Oracle E-Business Suite Forms

To enable a seamless integration of custom actions with existing Oracle E-Business Suite Forms, certain files are uploaded to the Oracle E-Business Suite system for the adapters. The adapters use user interface .PLL extension modules to access workflow tasks (Imaging Solution) and documents associated with business records (both solutions).

The *Custom.PLL* module is slightly modified during configuration to call AXF functions. It notifies AXF each time an Oracle E-Business Suite event occurs, allowing AXF to determine if it relates to AXF functionality.

The *AXF\_Custom.PLL* component performs the following functions:

- Calls out to a web service to execute an AXF Command
- Responds to the following AXF response commands:
  - Open Browser
  - Terminate Conversation
- Renders menus to expose AXF functionality based on the Oracle E-Business Suite configuration database.

Follow these steps to copy the *AXF\_CUSTOM.pld* file, convert it to an *AXF\_CUSTOM.pll* file, make modifications, and then compile it to an *AXF\_CUSTOM.plx* file.

 **Note:**

It is recommended to compile *AXF\_CUSTOM.pll* using an alternative command line method (applicable for Oracle E-Business Suite 12 Forms use only). For more information, see [Compiling AXF\\_CUSTOM.pll Using the Command Line](#).



 **Note:**

For information on using Oracle Forms Builder, see its Oracle E-Business Suite documentation.

1. For the applicable version listed below, copy the **AXF\_CUSTOM.pld** file to the E-Business Server (to **FORMS\_PATH** for Oracle E-Business Suite 12, or **FORMS60\_PATH** for Oracle E-Business Suite 11).

Oracle E-Business Suite 12: *MW\_HOME/wccontent/axf/adapters/ebs/R12/AXF\_CUSTOM.pld*

Oracle E-Business Suite 11: *MW\_HOME/wccontent/axf/adapters/ebs/R11/AXF\_CUSTOM.pld*

 **Note:**

If you are using a Linux/UNIX system and copied the .PLD from a Windows system, issue the `dos2unix` command before converting it below.

2. Open Oracle Forms Builder and connect to the Oracle E-Business Suite database as the APPS user. Forms Builder is typically located in the `/bin/` subdirectory of your database's Oracle home.

 **Note:**

Be sure to connect to the Oracle E-Business Suite database. If you fail to connect, verify the `tnsnames.ora` file.

3. In Forms Builder, convert `AXF_CUSTOM.pld` to `AXF_CUSTOM.pll`.
  - In Oracle E-Business Suite 12, select **File**, then **Convert**.
  - In Oracle E-Business Suite 11, select **File**, then **Administration**, then **Convert**.

Select **PL/SQL libraries** and **Text to binary** while converting the file.

 **Note:**

If the following error displays during conversion of `AXF_CUSTOM.pld` to `AXF_CUSTOM.pll`, repeat this step until the file successfully converts.

*PDE-PLI038 - Can not open file as a PL/SQL Library*

 **Note:**

If the following error displays during conversion, click OK repeatedly until the file successfully converts.

*PDE-PLI018 - Could not find library AXF\_CUSTOM*

4. From the File menu, open `AXF_CUSTOM.pll`.
  - In Oracle E-Business Suite 12, select **Program**, then **Compile pl/sql**, then **All**.
  - In Oracle E-Business Suite 11, select **Program**, then **Compile**, then **All**.
5. Compile `AXF_CUSTOM` into a module (`.plx`).
  - In Oracle E-Business Suite 12, select **Program**, then **Compile Module**.
  - In Oracle E-Business Suite 11, select **File**, then **Administration**, then **Compile File**.

 **Note:**

- You must compile `AXF_CUSTOM` using the APPS schema user ID.
- If you encounter the following identifier or other errors referencing objects in `APPCORE.pll` while compiling, this indicates that the `APPCORE.pll` file must be attached to your form:

`'APP_SPECIAL.ENABLE'` must be declared (a).

6. Select **File** then **Connect** and ensure that you are connected to the database as the APPS user.
7. Back up the `CUSTOM.pll` file.

 **WARNING:**

Modifications to `CUSTOM.pll` are modifications to the Oracle E-Business Suite infrastructure. Ensure that you have appropriately backed up this file before making changes.

8. Open `CUSTOM.pll` by selecting **File**, then **Open** and selecting **PL/SQL Libraries (\*.pll)** in the Files of Type field. After opening the file and expanding Program Units, right-click the custom package body of `CUSTOM.pll` and select `pl/sql` editor.
9. In the body text of `CUSTOM.pll`, modify the following text formatted in bold italics for the solutions you are configuring. If the file contains other customizations, place the following modification after the existing code inside each function/procedure.
  - *For Managed Attachments Only or Both Solutions:*

```
function zoom_available return boolean is
begin
```

```
-- Required for ALL integrations
return true;
end zoom_available;
```

- *For Imaging Solution Only:*

```
function zoom_available return boolean is
begin
```

```
-- Required for ALL integrations
return AXF_CUSTOM.zoom_available();
end zoom_available;
```

### Important:

Be sure to modify the body text of the pll, NOT its header. Scroll down until you reach the following comment header:

```
- -Real code starts here
```

10. In the body text of `CUSTOM.pll`, modify the following text formatted in bold italics. If the file contains other customizations, place the following modification after the existing code inside each function/procedure.

```
procedure event(event_name varchar2) is
begin

-- Required for AXF integrations
AXF_CUSTOM.event(event_name);
null;

end event;
```

### Note:

Do not remove the `null;` line.

11. Save `CUSTOM.pll` by selecting **File**, then **Save**.
12. With `CUSTOM.pll` open, determine if `AXF_CUSTOM` is listed as an attached library.
  - If it is listed, highlight `AXF_CUSTOM` and click the minus (-) symbol to detach it. Then reattach `AXF_CUSTOM` by highlighting Attached Libraries under `CUSTOM` and clicking the plus (+) symbol; browse to `AXF_CUSTOM.pll` and select it.
  - If it is not listed, attach `AXF_CUSTOM` by highlighting Attached Libraries under `CUSTOM` and clicking the plus (+) symbol; browse to `AXF_CUSTOM.pll` and select it.

When prompted to remove the path, click **Yes**.

13. With `CUSTOM.pll` open, verify that `APPCORE` and `APPCORE2` are listed as attached libraries to `AXF_CUSTOM.pll`. If not listed, attach them. If listed, detach and attach them.

14. With `CUSTOM.pll` open, select **Program**, then **Compile pl/sql**, then **All** (Oracle E-Business Suite 12) or **Program**, then **Compile**, then **All** (Oracle E-Business Suite 11).
15. Compile `CUSTOM` into a module (`.plx`) by selecting **Program**, then **Compile Module** (Oracle E-Business Suite 12) or **File**, then **Administration**, then **Compile File** (Oracle E-Business Suite 11).
16. Save all before exiting Forms Builder. Verify that the Zoom menu command displays in the appropriate Oracle E-Business Suite forms.

## 2.2.1 Compiling AXF\_CUSTOM.pll Using the Command Line

There is an alternative command line method for compiling Oracle E-Business Suite Forms for adapter use. It applies only to Oracle E-Business Suite Suite 12 Forms and does not apply to Oracle E-Business Suite 11.

Follow the steps below to copy the `AXF_CUSTOM.pld` file, convert it to an `AXF_CUSTOM.pll` file, make modifications, and then compile it to an `AXF_CUSTOM.plx` file. Then follow the steps in [Compiling Oracle E-Business Suite Forms](#) as indicated to modify the other file, `CUSTOM.pll`, and complete the Forms configuration.

1. Copy the `AXF_CUSTOM.pld` file to a UNIX system and run the **dos2unix** command to convert the file to UNIX format.

As an alternative, open the file in vi editor and manually remove the `^M` characters from the file.

2. Enter the following command line to convert `AXF_CUSTOM.pld` to `AXF_CUSTOM.pll`:

```
$APPL_TOP/au/12.0.0/resource>frmcmp_batch.sh module=AXF_CUSTOM.pld userid=apps/
apps output_file=AXF_CUSTOM.pll module_type=library parse=yes
```

3. Enter the following command line to convert `AXF_CUSTOM.pll` to `AXF_CUSTOM.plx`:

```
$APPL_TOP/au/12.0.0/resource>frmcmp_batch.sh module=AXF_CUSTOM.pll userid=apps/
apps output_file=AXF_CUSTOM.plx module_type=library compile_all=special
```

4. Convert the `CUSTOM.pll` file to `CUSTOM.pld` file. Modify the `CUSTOM.pld` file by following the steps 9 and 10 in [Compiling Oracle E-Business Suite Forms](#). Then compile `CUSTOM.pld` file using `frmcmp_batch.sh` with the commands provided in steps 2 and 3.

## 2.3 Configuring Oracle Application Framework (OAF) Pages Via Personalization

Managed Attachments functionality for OAF pages works as follows:

- You manually add a Managed Attachments button to the OAF page using OAF personalization, positioning the button in a custom flex region imported into the MDS repository.
- The button is associated with a generic extended controller class which redirects the call from Oracle E-Business Suite to a custom intermediate OAF page, passing the required Oracle E-Business Suite mapping entities.

- The controller class analyzes which OAF page called it. The OAF page's key identifiers (name, view object, primary key attributes, and labels) are stored in the database tables. Based on the OAF page calling the controller, the solution fetches the appropriate rows from the database tables along with the required business entity values, which it adds as parameters to the custom intermediate OAF page's URL.
- When the user clicks the Managed Attachments button, the custom intermediate OAF page opens, its ProcessRequest method is called, and the SOAP packet is created. The SOAP call fetches the Content Server URL, and upon loading, the page is redirected to the Content Server URL.

 **Note:**

In addition to configuring OAF pages for Managed Attachments functionality, you can also provide imaging access on OAF pages, as described in [Configuring Other Services on OAF Pages \(Optional\)](#).

To configure the Oracle E-Business Suite OAF plug-in, follow the instructions in these sections:

- [Compiling Java Files\\_ Copying Class Files\\_ and Importing XML Files](#)
- [Personalizing OAF Pages to Add Managed Attachments](#)
- [Regenerating Product JAR Files for Oracle E-Business Suite 12.2.x](#)
- [Modifying the Configuration File for OAF Pages to Work with Oracle E-Business Suite 12.2.6+](#)
- [Configuring Other Services on OAF Pages \(Optional\)](#)

## 2.3.1 Compiling Java Files, Copying Class Files, and Importing XML Files

Follow these steps to compile Java files, copy class files, and import XML files to the MDS repository, to enable adding the Managed Attachments button to OAF pages. In [Personalizing OAF Pages to Add Managed Attachments](#), you will add the button to a custom flex region from the MDS repository.

 **Note:**

This procedure assumes you are familiar with using JDeveloper to compile Java files. For basic information, see the section on building your first program with JDeveloper 10g at:

<http://download.oracle.com/otndocs/tech/ias/portal/files/RG/OBE/FirstStep/FirstStep.htm>

1. Verify that you are using the correct JDeveloper version for your Oracle E-Business Suite release. At <http://support.oracle.com>, search for the following articles to verify that your JDeveloper version includes the needed OAF patch. If

you do not have the correct version, download and unzip the appropriate JDeveloper OAF patch file.

- Doc ID 416708.1, How to find the correct version of JDeveloper to use with Oracle E-Business Suite 11i or Release 12.x
  - Doc ID 357218.1, Troubleshooting JDeveloper setup for Oracle Applications
2. Start JDeveloper, and create an application. Within the new application, create a project.
  3. In the following location, locate the java files **GenericUcmButtonCO.java** and **RedirectToAxfCO.java** and add them to the project:

```
$MiddlewareHome/OracleHome/axf/adapters/ebs/oaf/src/oracle/apps/ak/ucm/axf/webui
```

Choose **Add Project Content**, then click the **Add** button and select the folder containing the Java files.

4. In the project properties, add the following OAF libraries:
  - BC4J Client
  - BC4J Runtime (Note: Do NOT add BC4J EJB Runtime)
  - Cabo
  - FND Libraries
5. Compile the Java files in the project (right-click the project and choose **Rebuild**).
6. Copy the class files (find **Output Directory**, which has the generated classes, via project properties) to the specified Oracle E-Business Suite mid tier \$JAVA\_TOP directory, creating the required directory structure.
  - Class files to copy: **GenericUcmButtonCO.class** and **RedirectToAxfCO.class**
  - Oracle E-Business Suite Server directory to copy class files to:

```
$JAVA_TOP/oracle/apps/ak/ucm/axf/webui
```

7. Import the XML file for the Generic Flex Layout Region into the MDS Repository.
  - XML file to import: **ManagedAttachmentButtonRN.xml**
  - Directory from which to execute the command (might be \$JDEV\_USER\_HOME, then up two levels to jdevbin):

```
$JdevHome/jdevbin/oaext/bin
```

- ManagedAttachmentButtonRN import command to execute (from the command prompt, replacing italicized parameters):

```
./import Full path to ManagedAttachmentButtonRN.xml -username appsUsername  
-password appsPassword -dbconnection "(description = (address_list =  
(address = (community = tcp.world)(protocol = tcp)(host = DB Hostname)(port  
= DB Port)))(connect_data = (sid = DB SID))" -rootdir path to directory  
where ManagedAttachmentButtonRN.xml is located -rootPackage /oracle/  
apps/ak/ucm/axf/webui
```

- Example ManagedAttachmentButtonRN import command (where the XML file is in the \$JAVA\_TOP directory):

```
./import /$JAVA_TOP/ManagedAttachmentButtonRN.xml -username apps -password  
password -dbconnection "(description = (address_list = (address = (community  
= tcp.world)(protocol = tcp)(host = DB Hostname)(port = DB Port)))
```

```
(connect_data = (sid = DB SID)))" -rootdir /$JAVA_TOP -rootPackage /oracle/
apps/ak/ucm/axf/webui
```

 **Note:**

If the import fails and returns an error that a jar file is missing, add the full path for the **oamdsdt.jar** file to the CLASSPATH entry in the import script (import file on Linux, import.bat on Windows). The full path for oamdsdt.jar is:

```
$JdevHome/jdevbin/oaext/lib/oamdsdt.jar
```

For example, the import file typically contains a CLASSPATH entry of the form:

```
set CLASSPATH=$JRAD_ROOT/jdev/appslibr/uir2.jar
```

Change it to add the required jar, like this:

```
set CLASSPATH=$JRAD_ROOT/jdev/appslibr/uir2.jar:/oracle/r12/JDeveloper/
jdevbin/oaext/lib/oamdsdt.jar
```

8. Import the XML file for the Custom OAF page used for redirection into the MDS Repository.

- XML file to import: **RedirectToAxfPG.xml**
- Directory from which to execute the command:

```
$JdevHome/jdevbin/oaext/bin
```

- RedirectToAxfPG import command to execute (from the command prompt, replacing italicized parameters):

```
./import Full path to RedirectToAxfPG.xml -username appsUsername -password
appsPassword -dbconnection "(description = (address_list = (address =
(community = tcp.world)(protocol = tcp)(host = DB Hostname)(port = DB
Port)))(connect_data = (sid = DB SID)))" -rootdir Path to directory where
RedirectToAxfPG.xml is located -rootPackage /oracle/apps/ak/ucm/axf/webui
```

Example RedirectToAxfPG import command (where the XML file is in the \$JAVA\_TOP directory):

```
./import /$JAVA_TOP/RedirectToAxfPG.xml -username apps -password password -
dbconnection "(description = (address_list = (address = (community =
tcp.world)(protocol = tcp)(host = DB Hostname)(port = DB Port))
(connect_data = (sid = DB SID)))" -rootdir /$JAVA_TOP -rootPackage /oracle/
apps/ak/ucm/axf/webui
```

 **Note:**

If the import fails and returns an error that a jar file is missing, see the note in step [Compiling Java Files, Copying Class Files, and Importing XML Files](#).

9. Verify that the import was successful, by running the following commands via SQL prompt as the Oracle E-Business Suite APPS user:

```
SET SERVEROUTPUT ON
BEGIN
JDR_UTILS.PRINTDOCUMENT('/oracle/apps/ak/ucm/axf/webui/RedirectToAxfPG');
```

```
JDR_UTILS.PRINTDOCUMENT('/oracle/apps/ak/ucm/axf/webui/
ManagedAttachmentButtonRN');
END;
/
```

10. Load the **oaf\_axf\_messages.ldt** message bundle using FNDLOAD. This file contains the translatable messages used by the controller classes.
  - Verify that the LD\_LIBRARY\_PATH variable is set to \$ORACLE\_HOME/lib
  - As the Oracle E-Business Suite APPS user, execute the following command from \$FND\_TOP/bin:
 

```
FNDLOAD apps/$CLIENT_APPS_PWD 0 Y UPLOAD $FND_TOP/patch/115/import/afmdmsg.lct Full path to oaf_axf_messages.ldt
```
  - When prompted, enter the APPS user password.
11. Restart the Oracle E-Business Suite instance.

## 2.3.2 Personalizing OAF Pages to Add Managed Attachments

Perform these steps for each OAF page on which you want to display a Managed Attachment button. You create a flexible layout via personalization and add the Managed Attachment button file you previously imported into the MDS repository as flexible content.

### Note:

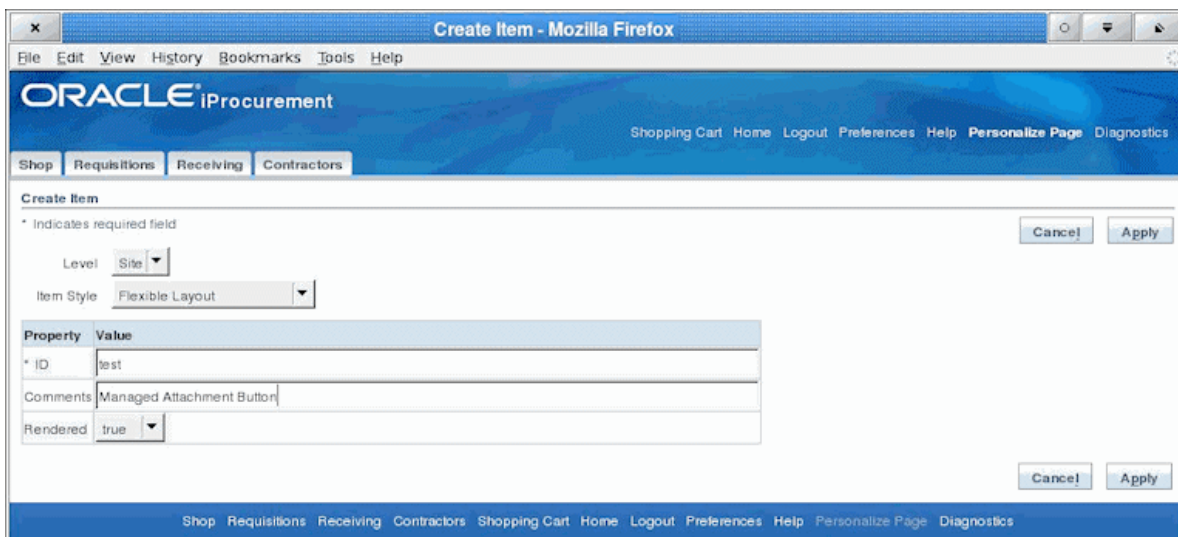
Add one Managed Attachments button per OAF page only; including multiple buttons causes the same controller code to execute multiple times.

The Managed Attachments functionality cannot be implemented for attachments for line items on OAF pages.

1. Log in to Oracle E-Business Suite as the OPERATIONS user.
2. Display the OAF page on which to add a Managed Attachment button, and click the **Personalize the page** link at the top of the page.
3. Under **Personalization Structure** on the Personalize Page page, select the **Complete View** option, and click the **Expand All** link. A full hierarchical view of all regions on the OAF page displays.
4. Create and configure the flexible layout.
  - a. Scroll down the hierarchical listing below the region where the button will display on the OAF page and click the **Create Item** icon. A Create Item page displays, as shown in [Figure 2-1](#).
  - b. In the **Level** field, select **Site**.
  - c. In the **Item Style** field, select **Flexible Layout**.
  - d. In the **ID** field, enter any value (*test*, for example).
  - e. Click **Apply**.



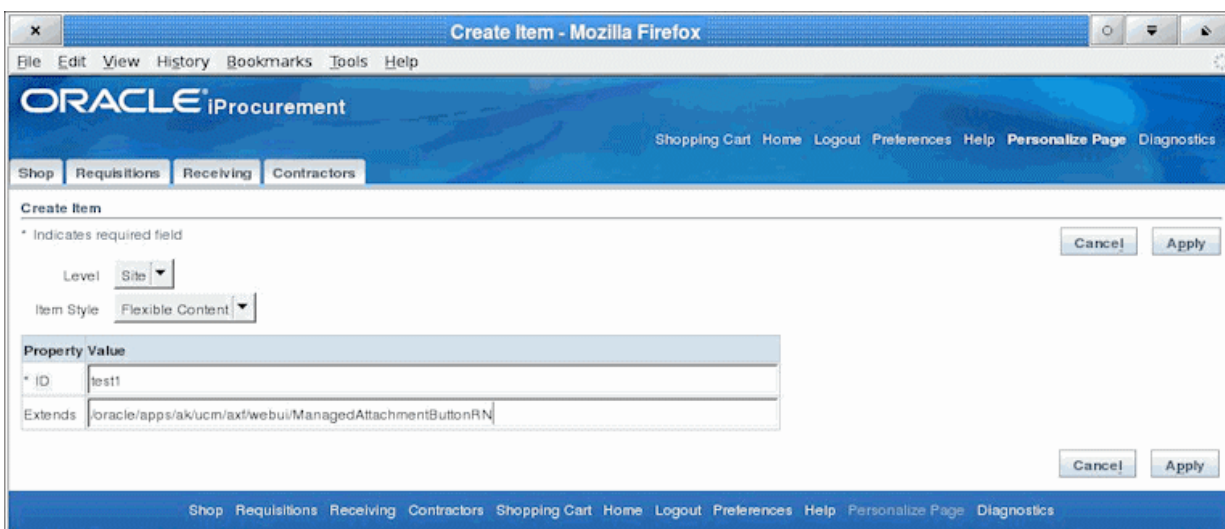
Figure 2-1 Creating the Flexible Layout



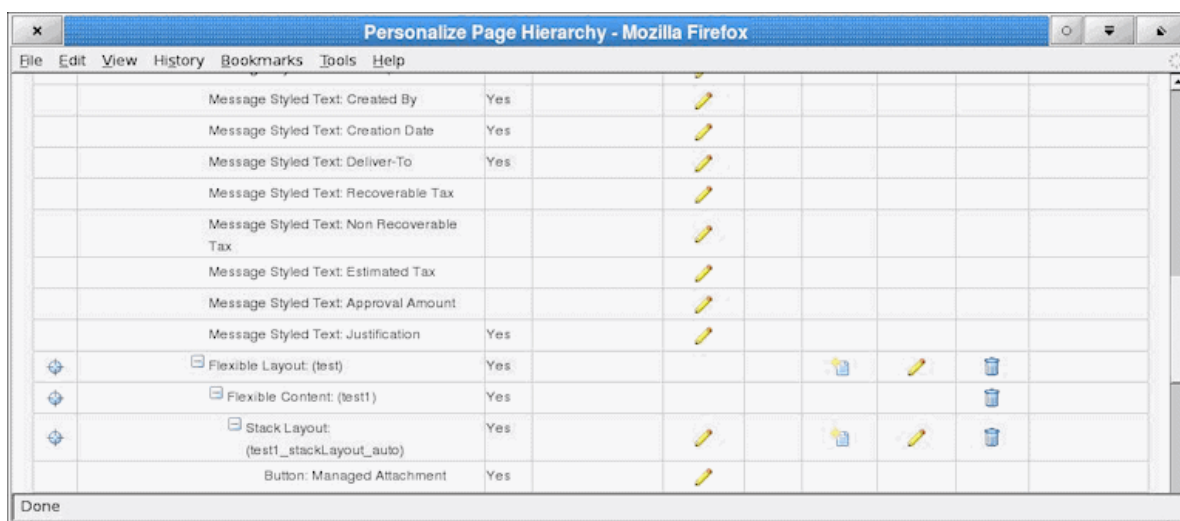
5. Create and configure the flexible content.
  - a. In the hierarchical list, locate the flexible layout you just added and click its **Create Item** icon. A Create Item page displays, as shown in [Figure 2-2](#).
  - b. In the **Item Style** field, select **Flexible Content**.
  - c. In the **ID** field, enter any value (test1, for example).
  - d. In the **Extends** field, enter the package for the flex region you imported into the MDS repository (in [Compiling Java Files Copying Class Files and Importing XML Files](#)):

`/oracle/apps/ak/ucm/axf/webui/ManagedAttachmentButtonRN`

Figure 2-2 Creating the Flexible Content



6. Click the **Apply** button.

**Figure 2-3 Page Hierarchy After Adding Managed Attachments Button Via Personalization**

## 2.3.3 Regenerating Product JAR Files for Oracle E-Business Suite 12.2.x

Perform the following steps, if you are using Oracle E-Business Suite 12.2.x for OAF pages:

1. Source the APPS environment file and run the **adadmin** tool.
2. In the adadmin tool, select **Regenerate all the product jar files**.
3. When adadmin tool finishes regenerating the product jar files, restart the Oracle E-Business Suite servers.

## 2.3.4 Modifying the Configuration File for OAF Pages to Work with Oracle E-Business Suite 12.2.6+

The *Allowed Redirects* security feature in Oracle E-Business Suite provides in-depth protection against phishing redirect attacks by enabling the configuration of allowed redirects to avoid unnecessary exposure. Allowed Redirects restrict redirects by utilizing a whitelist mechanism, defining hosts with allowed access to a resource and denying access to those that are not in the allowed listing. This feature is enabled by default, or turned ON, starting with Oracle E-Business Suite Release 12.2.6. Managed Attachments on OAF pages do not work with Oracle E-Business Suite 12.2.6. To make this work, you need to manually add the whitelist of host names to the configuration file:

1. Navigate to `$FND_TOP/secure`.
2. Edit the `allowed_redirects.conf` file.
3. Navigate to the **Manual Configuration** section.
4. Add `host <hostname>` entries for EBS hostname and UCM hostname.

Example:

```
host ebs.example.com
```

host ucm.example.com

5. Save changes to the configuration file.

## 2.3.5 Configuring Other Services on OAF Pages (Optional)

You can provide access to the Imaging solution instead of the Managed Attachments solution on OAF pages. For example, you might include a button that allows users to access the supplier maintenance functionality available in the Imaging solution.

The procedure below provides several steps to follow to add a custom button (instead of the Managed Attachment button) and to identify the button's action in the database table as Imaging instead of Managed Attachments.

1. Complete all steps except step 7 in [Compiling Java Files Copying Class Files and Importing XML Files](#). (Step 7, which imports the ManagedAttachmentButtonRN.xml file, is not needed.)
2. Customize the sample XML file provided (SampleAXFButtonRN.xml), modifying the following button ID and button prompt (title) values.

```
<oa:button id="AXFButton" prompt="Sample AXF Button"/>
```

For example, you might change the button ID to `IPM_BUTTON` and button prompt (title) to `Supplier Maintenance`.

3. Import the XML file into the MDS Repository.
  - XML file to import: **SampleAXFButtonRN.xml** (or modified version)
  - Directory from which to execute the command:
 

```
$JdevHome/jdevbin/oaext/bin
```
  - Import command to execute (from the command prompt, replacing italicized parameters):
 

```
./import Full path to XML file -username apps -password appsPassword -dbconnection "(description = (address_list = (address = (community = tcp.world)(protocol = tcp)(host = DB Hostname)(port = DB Port)))(connect_data = (sid = DB SID)))" -rootdir path to directory where XML file is located -rootPackage /oracle/apps/ak/ucm/axf/webui
```
  - Example import command (where the XML file is in the \$JAVA\_TOP directory):
 

```
./import /$JAVA_TOP/SampleAXFButtonRN.xml -username appsUsername -password appsPassword -dbconnection "(description = (address_list = (address = (community = tcp.world)(protocol = tcp)(host = DB Hostname)(port = DB Port)))(connect_data = (sid = DB SID)))" -rootdir /$JAVA_TOP -rootPackage /oracle/apps/ak/ucm/axf/webui
```
4. Use this button ID for the command in the [OAF\\_AXF\\_COMMANDS Table \(Oracle E-Business Suite OAF\)](#). The new button ID will correspond to AXF\_EVENT\_ID. An example is shown in [OAF\\_AXF\\_COMMANDS Table \(Oracle E-Business Suite OAF\)](#).
5. In the OAF\_AXF\_CMD\_PARAMS table, add required command parameters, if any, for the AXF\_EVENT\_ID.
6. Follow the steps in [Personalizing OAF Pages to Add Managed Attachments](#) to add the button imported above via personalization. In step [Personalizing OAF Pages to Add Managed Attachments](#) of [Personalizing OAF Pages to Add Managed](#)

[Attachments](#), be sure to enter the name of the package you imported into the MDS repository in step [Configuring Other Services on OAF Pages \(Optional\)](#) of this section. In the example provided, this name is `/oracle/apps/ak/ucm/axf/webui/SampleAXFButtonRN`.

## 2.3.6 Configuring UCM Web Service Implementation Webkey on OAF Pages

If you are using UCM web service implementation and the value of the webkey is anything other than `cs`, configure the following in `OAF_AXF_CMD_PARAMS` table:

```
Insert into OAF_AXF_CMD_PARAMS (AXF_CMD_PARAMS_ID, AXF_CMDS_ID,
AXF_PARAM_NAME, AXF_DATASOURCE, AXF_VIEW_OBJ_NAME,
AXF_ATTRIBUTE_NAME, AXF_CONSTANT_VALUE) values
(OAF_AXF_CMD_PARAMS_SEQ.NEXTVAL, v_cmdId, 'CS_WEBKEY', 'CONSTANT', null,
null, '<WEBKEY_VALUE>');
```

## 2.4 Securing Adapter Communications for Oracle E-Business Suite

You can secure adapter communications for the Oracle E-Business Suite through SOAP security and SSL.

This includes:

- [Securing Communications Through SOAP Security](#)
- [Securing Communications Through SSL \(Oracle E-Business Suite\)](#)

### 2.4.1 Securing Communications Through SOAP Security

Follow these steps to configure SOAP security, in which the application sends the SOAP user and password in the header for authentication.

 **Note:**

Configuring SOAP security is required.

1. Ensure that SOAP security is enabled, by verifying that it is set to `TRUE` for the `AXF_SOAP_SECURITY` property in the [AXF\\_PROPERTIES Table \(Oracle E-Business Suite\)](#) and the [OAF\\_AXF\\_PROPERTIES Table \(Oracle E-Business Suite OAF\)](#).

 **Note:**

Ensure that you restart Oracle E-Business Suite after changing `AXF_SOAP_SECURITY` from `FALSE` to `TRUE`.

2. Set the `AXF_SOAP_POLICY` property to `USER_NAME_TOKEN`.

3. Set the `AXF_SOAP_USER` value (for example, to `weblogic`). By default, this setting might be `AXF` and should be changed. The `AXF_SOAP_USER` refers to a valid Oracle WebLogic Server administrator.
4. Store the SOAP password in the database vault by executing the following command as APPS schema:

```
execute fnd_vault.put('AXF','AXF_SOAP_USER','SOAP_PASSWORD');
```

Where `AXF_SOAP_USER` is the SOAP user ID used in the SOAP header for authentication, and `SOAP_PASSWORD` is the SOAP password. (The first item, 'AXF', is an identifier that needs to be included as is.)

For example:

```
execute fnd_vault.put('AXF','weblogic','examplepassword');
```

5. Verify the previous command with this statement:

```
select fnd_vault.get ('AXF','AXF_SOAP_USER') from dual;
```

For example:

```
select fnd_vault.get ('AXF','weblogic') from dual;
```

## 2.4.2 Securing Communications Through SSL (Oracle E-Business Suite)

Perform the following procedures to specify Oracle E-Business Suite system settings for SSL configuration for AXF.

- [Configuring the Oracle Wallet](#)
- [Configuring the Integration for SSL](#)

### 2.4.2.1 Configuring the Oracle Wallet

1. Run Oracle Wallet Manager. In Linux, the `owm` executable is located at:  

```
//ORACLE_HOME/bin/owm
```
2. Create a wallet. Using the wizard, enter the required information to create a certificate. Export to a file.
3. Submit the certificate request to CA (Certificate Authority, such as Verisign) to purchase a new certificate.
4. Save the SSL certificates with a `.cer` extension. Most likely, the CA provided an SSL certificate, an Intermediate certificate, and a Trusted Root certificate through e-mail.
5. Import the Root and Intermediate certificates into the Oracle Wallet by right-clicking **Trusted Certificates** and importing.
6. Import the SSL certificate into the wallet manager.

If the process is successfully completed, a Ready status displays.

 **Tip:**

To import the SSL certificate, right-click the Certificate Requested tree item if needed.

7. Save the wallet in one of the folders defined in the FORMS\_PATH. (It is saved with the name *ewallet.p12*).

## 2.4.2.2 Configuring the Integration for SSL

For more information, see Configuring SSL in *Administering Security for Oracle WebLogic Server*.

1. On the Oracle E-Business Suite database, run the SQL statements listed below.
  - a. For Oracle E-Business Suite Forms applications:

```
update AXF_PROPERTIES set propvalue='file:walletpath' where proptime =
'AXFWalletPath';
update AXF_PROPERTIES set propvalue='ON/OFF' where proptime = 'SecureMode';
commit;
```

- b. For Oracle E-Business Suite OAF applications:

```
update OAF_AXF_PROPERTIES set propvalue='file:walletpath' where proptime =
'AXFWalletPath';
update OAF_AXF_PROPERTIES set propvalue='ON/OFF' where proptime =
'SecureMode';
commit;
```

2. Update tables to reflect the SecureMode setting and secure port. When SecureMode is on, the integration attempts to connect to the AXF application using SSL (https).
  - a. In the Oracle E-Business Suite AXF\_CONFIGS table, update the SOLUTIONENDPOINT value to begin with `https://` if SecureMode is on, or begin with `http://` if SecureMode is off. Change *Port* to match the secure port on the Oracle WebCenter Content side.
  - b. In the Oracle E-Business Suite OAF\_AXF\_CONFIGS table, update the SOLUTIONENDPOINT value to begin with `https://` if SecureMode is on, or begin with `http://` if SecureMode is off. Change *Port* to match the secure port on the Oracle WebCenter Content side.

For an Imaging configuration, see [AXF\\_CONFIGS Table \(Oracle E-Business Suite\)](#). For a Managed Attachments Forms configuration, see [AXF\\_CONFIGS Table \(Oracle E-Business Suite Forms\)](#). For a Managed Attachments OAF configuration, see [OAF\\_AXF\\_CONFIGS Table \(Oracle E-Business Suite OAF\)](#).

3. Store the Wallet password in the database vault by executing the following command as APPS schema:

```
execute fnd_vault.put('AXF','AXFWalletKey','WalletPassword');
```

Where *WalletPassword* is the wallet password.

4. Verify the previous command with this statement:

```
select fnd_vault.get ('AXF','AXFWalletKey') from dual;
```

5. Import the AXF certificate into the wallet.

6. Enable SSL on Oracle WebLogic Server on the Oracle WebCenter Content side.  
For information, see *Configuring SSL for the Middle Tier* in *Administering Oracle Fusion Middleware*.
7. Exchange server certificates between the web servers.  
This step involves exporting the certificate from Oracle Wallet and importing it into the Oracle WebLogic Server keystore on the Oracle WebCenter Content side of the integration. This keystore must be enabled for both the Administration and Imaging servers. In addition, you must export the server certificate from the Oracle Weblogic Server and import it into the Oracle Wallet.

## 2.5 Configuring Oracle E-Business Suite Logging

- [Configuring Logging for Forms Applications](#)
- [Configuring Logging for OAF Applications](#)

### 2.5.1 Configuring Logging for Forms Applications

Enable logging for specific forms in the AXF\_CONFIGS table. For the Imaging solution, see [AXF\\_CONFIGS Table \(Oracle E-Business Suite\)](#); for the Managed Attachments solution, see [AXF\\_CONFIGS Table \(Oracle E-Business Suite Forms\)](#).

To enable logging for a particular Form function, set the **LOGENABLED** field to either 1, YES or TRUE to create the file in the UTL\_FILE\_DIR folder. Consult with your DBA to verify that the UTL\_FILE\_DIR folder is available and accessible. Log files are named *Username\_MASTER\_LOG.txt*, and continue to grow as items are appended.

### 2.5.2 Configuring Logging for OAF Applications

Follow these steps to enable diagnostics on a specific OAF page.

1. Click the **Diagnostics** link at the top of the OAF page.
2. On the Diagnostics page, select the following settings:
  - a. In the **Diagnostic** field, select **Show Log on page**.
  - b. In the **Log Level** field, select **Statement (1)**.
3. Click **Go**.
4. Navigate to the page with an error. Search for the string `Debug-->` on the page.

## 2.6 Setting User Locales

To prevent issues with different locales when invoking AXF, Oracle E-Business Suite users should set the same values for their user locale preference and their browser locale. If using the Managed Attachments Solution, set the same value for the Content Server locale.

## 2.7 Configuring Solutions for Oracle E-Business Suite

See the information below for additional tasks to configure each solution.

### For the Imaging Solution

Configure the Imaging solution as described in [Configuring the BPEL Imaging Solution](#). Configure AXF-related Oracle E-Business Suite tables as described in [Oracle E-Business Suite Forms Tables For the BPEL Imaging Solution](#) or apply a solution accelerator as described in [Configuring the AXF Tables or Applying a Solution Accelerator](#).

 **Note:**

The Oracle E-Business Suite imaging solution is supported for Forms-based applications only, not OAF applications.

### For the Managed Attachments Solution

1. Configure the Managed Attachments solution as described in [Configuring the Managed Attachments Solution](#). In addition to configuring Content Server components and running the AXF\_ATTACHMENTS\_CONFIG.sql script, which configures AXF elements such as solutions and commands, you must run scripts to populate the tables for Forms and OAF applications:
  - a. For Forms applications, running the AXF\_EBS\_ATTACHMENTS\_CONFIG.sql configures the Zoom menu to enable the Managed Attachments solution. For details, see [Enabling Managed Attachments for Oracle E-Business Suite Forms Applications](#).
  - b. For OAF applications, running the OAF\_AXF\_EBS\_ATTACHMENTS\_CONFIG.sql script populates the tables listed in [Oracle PeopleSoft Tables For the Managed Attachments Solution](#) for the Managed Attachments solution for selected OAF pages, which you can modify for your OAF pages. For details, see [Enabling Managed Attachments for Oracle E-Business Suite OAF Applications](#).

## 2.8 Post-Upgrade Steps for Managed Attachments Solution

If you are upgrading from Managed Attachments solution 11g to 12c and want to use the UCM web service implementation for Managed Attachments, use the scripts available at the following location:

For Oracle E-Business Suite Forms:

**EbsUpdateScript.sh** and **EbsUpdateTables.sql** in the `MW_HOME/wccontent/axf/adapters/ebs/R12` directory

For Oracle E-Business Suite OAF:

**EbsOafUpdateScript.sh** and **EbsOafUpdateTables.sql** in the `MW_HOME/wccontent/axf/adapters/ebs/oaf`

The EBS tables contain the Imaging/IPM URL as the endpoint for Managed Attachments solution 11g. Using the same endpoint for Managed Attachments solution 12c might result in errors. You can run the above scripts to modify the endpoint for Managed Attachments solution to point to Oracle WebCenter Content 12c.



## 2.9 Uninstalling AXF From Oracle E-Business Suite

Follow the steps that apply to your Oracle E-Business Suite configuration to uninstall AXF from Oracle E-Business Suite.

- [Uninstalling From Oracle E-Business Suite Forms](#)
- [Uninstalling From Oracle E-Business Suite OAF](#)

### 2.9.1 Uninstalling From Oracle E-Business Suite Forms

1. Assign the AXF configuration schema user the following privileges:
  - Drop table
  - Drop sequence
  - Drop public synonym
2. As the AXF user, execute the **AXF\_DROP\_TABLES\_SYNONYM** script for your Oracle E-Business Suite version, from the applicable location listed below. This script drops all tables, synonyms, and sequences created by the **AXF\_CREATE\_TABLES\_SYNONYM** script run during installation.

Oracle E-Business Suite 12: *MW\_HOME/wccontent/axf/adapters/ebs/R12/AXF\_DROP\_TABLES\_SYNONYM.sql*

Oracle E-Business Suite 11: *MW\_HOME/wccontent/axf/adapters/ebs/R11/AXF\_DROP\_TABLES\_SYNONYM.sql*

Execute the script by entering:

```
@AXF_DROP_TABLES_SYNONYM.sql
```

3. Remove the AXF database schema user.
4. Remove AXF\_CUSTOM.\* (AXF\_CUSTOM.pll, AXF\_CUSTOM.pld, and AXF\_CUSTOM.plx) from `FORMS_PATH` (or `FORMS60_PATH` on Oracle E-Business Suite 11 systems).
5. Restore the CUSTOM.pll file you backed up in step [Compiling Oracle E-Business Suite Forms](#) in [Compiling Oracle E-Business Suite Forms](#).
6. Open Oracle Forms Builder and connect to the Oracle E-Business Suite database as the APPS user. Forms Builder is typically located in the `/bin/` subdirectory of your database's Oracle home.
7. Open the restored CUSTOM.pll by selecting **File**, then **Open** and selecting **PL/SQL Libraries** (\*.pll) in the Files of Type field.
8. With CUSTOM.pll open, select **Program**, then **Compile pl/sql**, then **All** (Oracle E-Business Suite 12) or **Program**, then **Compile**, then **All** (Oracle E-Business Suite 11).
9. Compile CUSTOM into a module (.plx) by selecting **Program**, then **Compile Module** (Oracle E-Business Suite 12) or **File**, then **Administration**, then **Compile File** (Oracle E-Business Suite 11).
10. Save all before exiting Forms Builder.

## 2.9.2 Uninstalling From Oracle E-Business Suite OAF

1. Assign the AXF configuration schema user the following privileges:
  - Drop table
  - Drop sequence
  - Drop public synonym
2. As the AXF user, execute the **OAF\_AXF\_DROP\_TABLES\_SYNONYM** script from the location listed below. This script drops all tables, synonyms, and sequences created by the **OAF\_AXF\_CREATE\_TABLES\_SYNONYM** script run during installation.

*MW\_HOME/wccontent/axf/adapters/ebs/oaf/OAF\_AXF\_DROP\_TABLES\_SYNONYM.sql*

Execute the script by entering:

```
@OAF_AXF_DROP_TABLES_SYNONYM.sql
```

3. Remove the AXF database schema user.

# 3

## Configuring the Oracle PeopleSoft Plug-In

For WebCenter application adapter solutions, you can configure the Oracle PeopleSoft plug-in by importing the Oracle PeopleSoft project, configuring adapter security through Integration Broker, securing communications through SSL, and placing AXF components on the Oracle PeopleSoft pages.

This chapter covers the following topics:

- [Importing the Oracle PeopleSoft Project](#)
- [Configuring and Securing Adapter Communications for Oracle PeopleSoft](#)
- [Placing AXF Components on Oracle PeopleSoft Pages](#)
- [Configuring Oracle PeopleSoft Logging](#)
- [Configuring Solutions for Oracle PeopleSoft](#)
- [Uninstalling AXF From Oracle PeopleSoft](#)

### Note:

If installing adapter solutions for Oracle E-Business Suite but not Oracle PeopleSoft, skip this chapter after completing the steps described in [Configuring the Oracle E-Business Suite Plug-In](#).

### 3.1 Importing the Oracle PeopleSoft Project

Follow these steps to import the Oracle PeopleSoft project, which creates and populates the AXF-related Oracle PeopleSoft tables and enables AXF configuration on Oracle PeopleSoft pages:

1. As a user with administrative privileges, create a tablespace called `AXF` in the database containing the Oracle PeopleSoft schemas.

For example, you might use the following sample SQL to create the AXF tablespace:

```
SQL> create tablespace axf datafile 'D:/oradata/FS91DMO/axf.dbf' size 100m
extent management LOCAL SEGMENT SPACE MANAGEMENT AUTO;
```

For more information on tablespaces, see *Creating Tablespaces in Oracle Database Administrator's Guide*.

### Note:

Oracle PeopleSoft integration does not require an additional database user, as all necessary tables are created when importing a project.

 **Note:**

SQL Server automatically creates the tablespace upon importing the project. If your Oracle PeopleSoft installation uses a SQL Server, this step is not required.

2. Start the Oracle PeopleSoft Application Designer in two-tier mode and log in as the user with administrative privileges.

 **Note:**

If your Oracle PeopleSoft system already has an AXF\_PS\_INTEGRATION project installed, delete the existing project in Oracle PeopleSoft Application Designer before proceeding to the next step. To delete it, choose **File**, then **Delete**. Enter AXF\_PS\_INTEGRATION for the project name and delete it. Then click **Save All** in Oracle PeopleSoft Application Designer.

3. From the menu, choose **Tools**, then **Copy Project**, then **From File**. The Copy From File dialog box displays.
4. Locate the following directory:

`MW_HOME/wccontent/axf/adapters/psft/`

5. Select the **AXF\_PS\_INTEGRATION** directory and click **Open**.

The second AXF\_PS\_INTEGRATION directory contains the project XML files, but you must select its parent directory (of the same name) to access them from the Oracle PeopleSoft Application Designer. The AXF\_PS\_INTEGRATION project displays in the lower pane of the page.

6. Click **Select**, select all definition types, and click **Copy**. The project files begin copying.
7. After all files have copied, choose **Build**, then **Project** from the menu. The Build page displays.
8. Select the **Create Tables** and **Execute SQL Now** options, and click **Build**. You can monitor the build status as the files are imported into Oracle PeopleSoft.
9. Once done, check the PSBUILD.LOG file to verify that the project imported successfully.
10. If the log file shows *tablespace 'AXF' does not exist* errors, the tablespace was not created properly. Manually create a tablespace called `AXF` in the same database you logged into when starting the Oracle PeopleSoft Application Designer, then return to step 5 to rebuild the project.
11. Click **Save All** in Oracle PeopleSoft Application Designer.

## 3.2 Configuring and Securing Adapter Communications for Oracle PeopleSoft

Oracle PeopleSoft adapter security is configured through Integration Broker, where you select user name token authentication and then grant AXF access for Oracle PeopleSoft users.

This section covers the following topics:

- [Securing Communications Through SSL \(Oracle PeopleSoft\)](#)
- [Configuring Integration Broker to Communicate With AXF](#)
- [Configuring AXF Access For Oracle PeopleSoft Users](#)

### 3.2.1 Securing Communications Through SSL (Oracle PeopleSoft)

Follow these main steps to implement web server SSL encryption for the Oracle PeopleSoft adapter:

1. Install web server-based digital certificates.  
Refer to the Oracle PeopleSoft documentation for an overview of securing integration environments, and outbound PeopleSoft Integration Broker security processing. In the Enterprise PeopleTools PeopleBook, Integration Broker Administration Guide, see the section on installing web server-based digital certificates.
2. Enable SSL on Oracle WebLogic Server on the Oracle WebCenter Content side.  
For information, see [Configuring SSL for the Middle Tier in \*Administering Oracle Fusion Middleware\*](#).
3. Exchange server certificates between the web servers.  
For information, see [Key and Certificate Storage in Oracle Fusion Middleware in \*Administering Oracle Fusion Middleware\*](#).

### 3.2.2 Configuring Integration Broker to Communicate With AXF

Importing the AXF\_PS\_INTEGRATION project into Oracle PeopleSoft also imports the Integration Broker connection information. These components contain information needed to connect from Oracle PeopleSoft to the AXF Server. This section describes how to access this information in the Oracle PeopleSoft web client and edit it to point to the AXF Server.

Follow the steps listed to configure communication between the Integration Broker and AXF in [Configuring Communication for Managed Attachments Web Service](#).

After configuring communication for the appropriate AXF Server version, complete these steps:

- [Encrypting the Gateway Password](#)
- [Setting Up the Service Operation Routings](#)
- [Validating Domain Status](#)

 **Note:**

An Oracle PeopleSoft local integration gateway is required for Oracle PeopleSoft external communications. See the Oracle PeopleSoft Enterprise documentation for information about setting up gateways. You can then proceed with configuring the Oracle PeopleSoft service operation to communicate with an AXF server.

### 3.2.2.1 Configuring Communication for Managed Attachments Web Service

1. In Oracle PeopleSoft Server, open **PeopleTools**, then **Integration Broker**, then **Integration Setup**. The Integration setup menu expands to show available options.
2. Click **Nodes**.
3. On the Find an Existing Value tab, select **Node Name** in the **Search By** field, enter `AXF` in the **Begins With** field, and click **Search**.
4. From the search results, click the **AXF\_12C** link.
5. On the Node Definitions tab, select the **Active Node** field. In the **External User ID** and **External Password** fields, enter the user name and password for a valid Oracle WebLogic Server administrator.

This user authenticates against the Solution Mediator web services installed on the application server on which AXF is installed.

6. Click the Connectors tab.
7. In the **Property Value** column, set **Host** to the server endpoint.

By default, AXF Server for AXF web service implementation takes place. You can even set the host to the UCM server name.

8. In the **Property Value** column, set the **URL**.

For AXF web service implementation:

- If using SSL, set it to the following URL, using `https` instead of `http`. Note that `port_number` must match the secure port on the Oracle WebCenter Content side.

```
https://AXF_Server name or IP address:port_number/axf-ws/  
AxFSolutionMediatorService
```

- If not using SSL, set it to the following URL:

```
http:// AXF_Server name or IP address:port_number/axf-ws/  
AxFSolutionMediatorService
```

For UCM web service implementation:

- If using SSL, set it to the following URL, using `https` instead of `http`. Note that `port_number` must match the secure port on the Oracle WebCenter Content side.

```
https://CSServerhostname:Port/idcws/AfGrantAccess
```

- If not using SSL, set it to the following URL:

```
http://CSServerhostname:Port/idcws/AfGrantAccess
```

9. Click **Save**.
10. Click **Ping Node** to verify that the node is configured properly.
  - If configured properly, the word *Success* displays in the message text area of the Ping NodeResults page.
  - If *Success* is not displayed, return to the Node Configuration page to validate the values and make sure that the gateway password is encrypted. See [Encrypting the Gateway Password](#).
11. Click the WS Security tab.
12. Select **Username Token** in the Authentication Token Type field and select the **Use External User ID** field.
13. Click **Save**.

### 3.2.2.2 Encrypting the Gateway Password

If *Success* is not displayed after pinging the node, encrypt the `secureFileKeystorePasswd` value under Gateway Properties, as described in the following steps.

1. In Oracle PeopleSoft Server, open **PeopleTools**, then **Integration Broker**, then **Configuration**, then **Gateways**.
2. Search for and open the LOCAL gateway, then click the **Gateway Setup Properties** link.
3. Sign on to access the `integrationGateway.properties` file.
4. Click the **Advanced Properties Page** link.
5. Use the Password Encryption Utility on the Gateway Properties page to encrypt the `secureFileKeystorePasswd` value.
6. On the Gateway Properties page, paste the encrypted password after `secureFileKeystorePasswd=` and click **OK**.

### 3.2.2.3 Setting Up the Service Operation Routings

1. From the Integration Setup options, select **Service Operations**.
2. On the Find Service Operation tab, enter `AXF` in the Service Operation field and click **Search**. A single results listing is returned.
3. Click the **AXF\_EXECUTE** link.
4. Click the Routings tab.
5. Verify status.

If communicating with an **AXF Server**, verify that the `AXF_SOLUTION_MEDIATOR_ROUTING` routing definition's status is Active. If it is not, choose its Selected field, click the **Activate Selected Routings** button, and ensure that all other routing definition are set to **Inactive**.

6. Click the **Save** button.

### 3.2.2.4 Validating Domain Status

Once you have configured the Integration Broker to communicate with AXF, follow these steps to verify its status.

1. Navigate to the Service Operation Monitor page by selecting **PeopleTools**, then **Integration Broker**, and then **Service Operations Monitor**. The Service Operations Monitor page displays.
2. Click **Domain Status** under the **Administration** section. The Domain Status page displays.
3. Under Domains, verify that the domain status is listed as **Active** next to the Oracle PeopleSoft Server. If not, select **Active** from the Domain Status field and click **Update**.

### 3.2.3 Configuring AXF Access For Oracle PeopleSoft Users

Follow the steps in these sections to grant AXF access to Oracle PeopleSoft users:

- [Verifying the AXF\\_ROLE for Oracle PeopleSoft Users](#)
- [Manually Adding the AXF\\_ROLE to Oracle PeopleSoft](#)
- [Assigning Users the AXF\\_ROLE](#)

#### 3.2.3.1 Verifying the AXF\_ROLE for Oracle PeopleSoft Users

During Oracle PeopleSoft project import, the AXF\_ROLE is automatically configured. Follow these steps to verify that appropriate Oracle PeopleSoft users have access to AXF functionality. If needed, follow the steps listed to manually add the AXF\_ROLE and permissions to Oracle PeopleSoft.

1. In Oracle PeopleSoft Server, open **PeopleTools**, then **Security**, then **Permissions & Roles**. The Permissions & Roles menu expands to show available options.
2. Click **Roles**. The Roles page displays.
3. Click the **Find an Existing Value** tab, and then enter AXF as the key.
4. Click **Search**. The AXF\_ROLE should be displayed. If it is not, follow the steps below to add it.

##### 3.2.3.1.1 Manually Adding the AXF\_ROLE to Oracle PeopleSoft

Follow these steps only if the AXF\_ROLE was not successfully verified in the previous section.

1. Click the **Add a New Value** tab.
2. Enter AXF\_ROLE in the Role Name field and click **Add**. The Role Name field is cleared and the AXF\_ROLE is added. Enter a description if needed and click **Save**.
3. Click **Roles**. Click the **Find an Existing Value** tab and find AXF\_ROLE from the listing of available roles. Click AXF\_ROLE, and its details are displayed.
4. Click the **Permission Lists** tab, enter AXF\_PERMS in the Permission List field, and click **Save**.



### 3.2.3.2 Assigning Users the AXF\_ROLE

After creating the AXF\_ROLE in Oracle PeopleSoft, follow these steps to assign the role to all users that require access to AXF functionality.

 **Note:**

You must assign the AXF\_ROLE in Oracle PeopleSoft to all users needing access to AXF functionality for AXF calls to process correctly from Oracle PeopleSoft.

1. In Oracle PeopleSoft Server, open **PeopleTools**, then **Security**, then **User Profiles**. The User Profiles menu expands to show available options.
2. Click **User Profiles**. The User Profiles page displays.
3. Select the criteria by which to search, enter it in the search field, and click **Search**. A listing of users displays.
4. Click the user to which to assign the role. A detailed page of user information displays.
5. Click the **Roles** tab. A listing of roles assigned to the user displays.
6. Enter AXF\_ROLE in a blank field (clicking the + icon to create a blank row if needed), or click the magnifying glass icon to search for the role.
7. Click **Save**. The user can now access AXF functionality on Oracle PeopleSoft pages.

## 3.3 Placing AXF Components on Oracle PeopleSoft Pages

You configure AXF components on Oracle PeopleSoft pages using the Oracle PeopleSoft Application Designer and the AXF tables in Oracle PeopleSoft.

### Determining Primary Keys and Business Objects for Oracle PeopleSoft Page

If needed, follow these steps:

1. In the Oracle PeopleSoft application, navigate to the page to enable.
2. Press **Ctrl+J**. In the info page, note the **Page** and **Component** entries for the selected page.

 **Note:**

In the latest versions of PeopleTools 8.55, by default **Alt+J** is the hot key.

3. In the Application Designer, select **File/Open** and choose **Page** from the Definition field.
4. In the **Name** field, enter the page name you noted in step 2 and click **Open**.
5. Select the **Order** tab at the top.

6. From the set of fields listed, identify the field that is the most likely unique ID (for example, VOUCHER\_ID for Invoice Entry) and note the record name.  
  
The record name is used for the business object value in the [PS\\_AXF\\_CMD\\_PARAMS Table](#) (Managed Attachments solution) and [PS\\_AXF\\_COMMAND\\_PARAMS Table](#) (Imaging solution).
7. From the **Insert** menu, choose the **Definitions into Project** command, and select **Records** from the Definition Type field.
8. In the **Name** field, enter the record name you noted in step 6 and click **Insert**.
9. Select the record in the list and click **Insert**. The record is inserted into the Project Tree on the left.
10. Expand the Records tree on the left, then expand the record you added. The primary keys are listed at the top, with a gold key icon to the left of the key name. Note the primary keys.

### Sample primary keys

**Table 3-1 Sample Primary Keys**

Pages	Page Name	Record Name	Primary Key
Maintenance Management > Work Order Management > Work Order	WM_WO_HDR	WM_WO_HDR	BUSINESS_UNIT
Maintenance Management > Work Order Management > Work Order	WM_WO_HDR	WM_WO_HDR	WO_ID
Customer Contracts > Create and Amend > General Information	CA_HDR_PNL	CA_CONTR_HDR	BUSINESS_UNIT
Customer Contracts > Create and Amend > General Information	CA_HDR_PNL	CA_CONTR_HDR	CONTRACT_NUM
Purchasing > Requisitions > Add/ Update Requisitions	REQ_FORM	REQ_HDR	BUSINESS_UNIT
Purchasing > Requisitions > Add/ Update Requisitions	REQ_FORM	REQ_HDR	REQ_ID

### About Placing AXF Components on Oracle PeopleSoft Pages

There are two categories of AXF components for use on Oracle PeopleSoft pages:

- **User interface items** refer to AXF buttons, links, and menus you place on an Oracle PeopleSoft page. Five of each are provided (for example, AXF\_BUTTON\_1 through \_5). The Managed Attachments solution uses these user interface items only.

A user interface item becomes active when positioned on a page. If AXF\_BUTTON\_1 is placed on multiple pages in the same Oracle PeopleSoft component, it shares the same configuration across the pages. To configure different actions for each page in the same component, use a different user interface item (for example, AXF\_BUTTON\_2). Note that you can reuse user interface items on different Oracle PeopleSoft components without conflicts.

- **System event components** refer to pre- and post-save items you place on an Oracle PeopleSoft page that trigger a pre- or post-save system event. The Imaging solution uses both user interface and system event items.

System events, like user interface items, are configured at the Oracle PeopleSoft component level. However, because they are not visible to the user, they are triggered when appropriate regardless of the page on which they are placed. For example, the AXF\_POST\_SAVE\_SBP and the AXF\_PRE\_SAVE\_SBP items are placed on specific pages; if a Save event occurs on a page in an Oracle PeopleSoft component that is being saved, the configured command executes.

- The AXF\_POST\_SAVE\_SBP item captures SAVE\_POST\_CHANGE system events, which execute a configured command *after* an Oracle PeopleSoft component is saved.

For example, you might configure a SaveInvoice command to invoke during the SAVE\_POST\_CHANGE event, so that whenever an action inserts a new Oracle PeopleSoft transaction record, the SaveInvoice command automatically performs a save.

- The AXF\_PRE\_SAVE\_SBP item captures SAVE\_PRE\_CHANGE system events, which execute a configured command *before* an Oracle PeopleSoft component is saved.

### Steps For Placing AXF Components on Oracle PeopleSoft Pages

Following are the steps for placing AXF components on Oracle PeopleSoft pages:

1. In the Oracle PeopleSoft Application Designer, open the AXF\_PS\_Integration Project that you imported in step [Importing the Oracle PeopleSoft Project](#) of [Importing the Oracle PeopleSoft Project](#).
2. Open an Oracle PeopleSoft page to enable. For example, open VCHR\_HEADER\_QV2.
3. From the Pages folder, select a button or link (subpage) and drag it onto the Oracle PeopleSoft page in an appropriate location. For example, drag the link called AXF\_LINK1\_SBP or the button called AXF\_BTN1\_SBP. This subpage link or button corresponds to AXF event settings in [PS\\_AXF\\_COMMANDS Table](#).
4. Save the page.

## 3.4 Configuring Oracle PeopleSoft Logging

The AXF Oracle PeopleSoft adapter uses standard apache log4j logging. You can activate and manage logging through the log4j.properties file. This file is located in the *PeopleSoft Installation Directory/appserv/classes* directory. Set the following options:

```
# A1 is set to be a ConsoleAppender which outputs to System.out.
log4j.appender.A1=org.apache.log4j.DailyRollingFileAppender
log4j.appender.A1.File=./LOGS/PS_AXF.log

# A1 uses PatternLayout.
log4j.appender.A1.layout=org.apache.log4j.PatternLayout
log4j.appender.A1.DatePattern=.yyyy-MM-dd
log4j.appender.A1.layout.ConversionPattern=%{dDATE} [%t] %-5p %c %x - %m%n

log4j.category.com.oracle.axf=DEBUG, A1
```

At a minimum, define an appender with a valid file location, and the level of messages to report (see above). Valid levels include the following in order of decreasing detail, where DEBUG displays all messages and detail:

- DEBUG
- INFO
- WARN
- ERROR
- FATAL

**Note:**

For detailed information about log4j, see the log4j documentation.

## 3.5 Configuring Solutions for Oracle PeopleSoft

See these sections listed below for additional tasks to configure each solution. After placing a component on an Oracle PeopleSoft page, a key task is to configure the AXF-related Oracle PeopleSoft tables to associate a command with the newly added button, link, or event.

### For the Imaging Solution

1. Configure the Imaging solution as described in [Configuring the BPEL Imaging Solution](#). Configure AXF-related Oracle PeopleSoft tables as described in [Oracle PeopleSoft Tables For the BPEL Imaging Solution](#) or apply a solution accelerator as described in [Configuring the AXF Tables or Applying a Solution Accelerator](#).
2. Specify an Oracle PeopleSoft role in the [PS\\_AXF\\_COMMANDS Table](#) to either grant users permission to use a specified user interface item or allow a specified system event to trigger for a user.

### For the Managed Attachments Solution

1. Configure the Managed Attachments solution as described in [Configuring the Managed Attachments Solution](#).
2. Make entries or changes to the PeopleSoft AXF tables listed in [Oracle PeopleSoft Tables For the Managed Attachments Solution](#). Running the sample script described in [Enabling Managed Attachments for Oracle PeopleSoft](#) populates the tables with sample values that you can modify. You must enter this information:
  - a. Enter the primary page keys you noted in [Placing AXF Components on Oracle PeopleSoft Pages](#).
  - b. Specify an Oracle PeopleSoft role in the [PS\\_AXF\\_COMMANDS Table](#) to grant users permission to use a specified user interface item.

## 3.6 Uninstalling AXF From Oracle PeopleSoft

No resources are being used if no AXF solutions are implemented, so there is no harm in leaving AXF objects in the system. If no AXF solutions are implemented, you can remove all AXF objects using Application Designer.

# 4

## Configuring AXF Settings

Most AXF configuration is completed as part of the Oracle WebCenter Content installation. You can configure additional AXF settings such as logging and coherence. This chapter covers the following topics:

- [Configuring Logging for AXF for BPEL](#)
- [Configuring Coherence](#)

### 4.1 Configuring Logging for AXF for BPEL

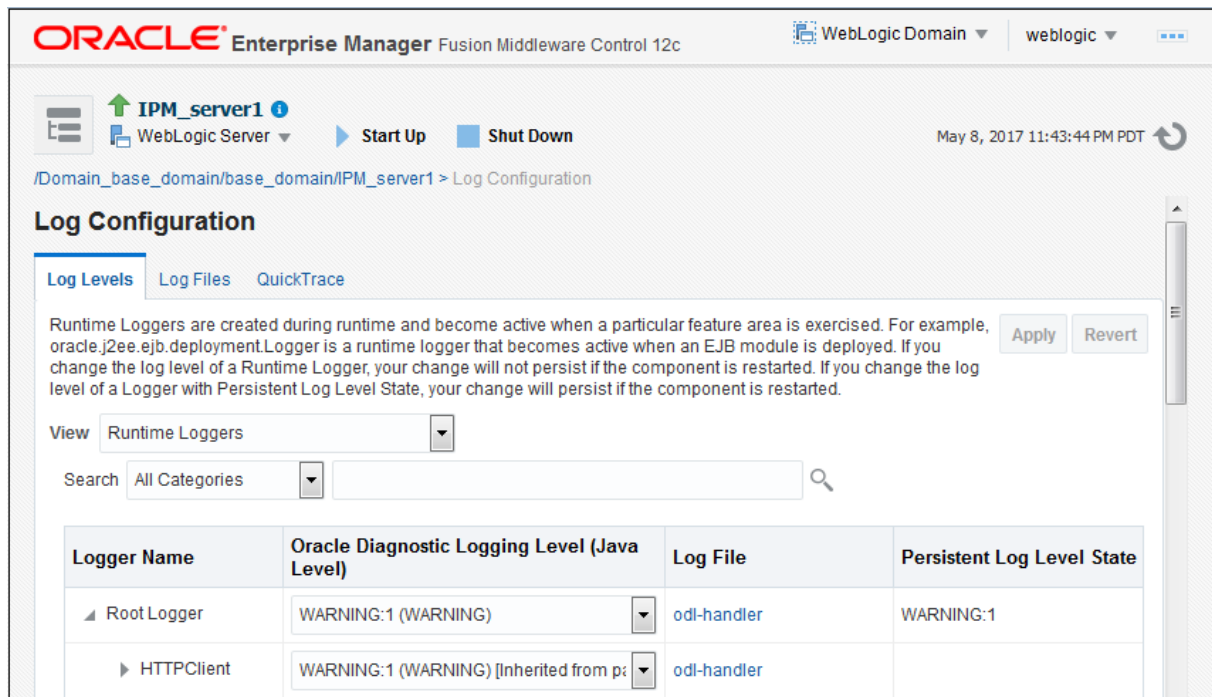
You can configure logging using either of these methods:

- [Using Enterprise Manager](#)
- [Using Application Server](#)

#### 4.1.1 Using Enterprise Manager

To use the web interface to set up loggers, navigate to the Log Configuration page in Enterprise Manager. For example, select the server in the side pane, right-click, and choose **Logs**, then **Log Configuration**. For more information, see the Oracle Enterprise Manager documentation.

Figure 4-1 Enterprise Manager



## 4.1.2 Using Application Server

Use the AXF logs to isolate issues in solution configuration. By default, some AXF logging automatically occurs as part of Application Server logging. Follow these steps to configure more detailed and separate AXF logging.

1. Add a log handler to the Application Server configuration. Add the handler inside the `<log_handlers>` tag in the logging.xml file, at the following location:

```
DOMAIN/config/fmwconfig/servers/SERVER/logging.xml
```

An example location follows:

```
base_domain/config/fmwconfig/servers/IPM_Server1/logging.xml
```

```
<log_handler name='axf-handler' level='ALL' class='oracle.core.ojdl.logging.ODLHandlerFactory'>
  <property name='path' value='${domain.home}/servers/${weblogic.Name}/logs/axf.log' />
  <property name='maxFileSize' value='5485760' />
  <property name='maxLogSize' value='54857600' />
  <property name='encoding' value='UTF-8' />
</log_handler>
```

2. Add a logger to the logging.xml file and set the level from the Log Levels (ODL Message Types) listed in [Table 4-1](#). You can set the logging level in the XML file or using Enterprise Manager.

```
<logger name='oracle.imaging.axf' level='TRACE:32' useParentHandlers='false'>
  <handler name='axf-handler' />
  <handler name='console-handler' />
</logger>
```



### Note:

Remove the console-handler tag to omit logging on the terminal.

**Table 4-1 Available Logging Levels**

Log Type	Description	Log Level (ODL Message Type)
NULL	The logger inherits the log level set for its parent.	n/a
SEVERE	Log system errors requiring attention from the system administrator.	ERROR:1
WARNING	Log actions or conditions discovered that should be reviewed and may require action before an error occurs.	WARNING:1
INFO	Log normal actions or events. This could be a user operation, such as login completed, or an automatic operation, such as a log file rotation.	NOTIFICATION:1
CONFIG	Log configuration-related messages or problems.	NOTIFICATION:16

**Table 4-1 (Cont.) Available Logging Levels**

Log Type	Description	Log Level (ODL Message Type)
FINE	Log trace or debug messages used for debugging or performance monitoring. Typically contains detailed event data.	TRACE:1
FINER	Log fairly detailed trace or debug messages.	TRACE:16
FINEST	Log highly detailed trace or debug messages.	TRACE:32

3. If using Windows, restart Administration Server if it is running. The logger displays in Enterprise Manager. You can change the logging level at run time.

## 4.2 Configuring Coherence

If your installation uses Coherence for caching (a requirement for high-availability environments), four separate caches are set up: one each for Namespaces, Property Definitions, Property Set Definitions, and Property Sets. This default caching configuration works out of the box with Coherence defaults.

To configure an optional Coherence configuration that is optimized for AXF, refer to the sample *axf-cache-config.xml* configuration file below, which shows how to configure simple Coherence caches. For more advanced cache types, refer to the Coherence documentation. Note that configuring Coherence as described below is recommended, but not required.

```
<?xml version="1.0"?>
<!-- File: coherence-cache-config.xml -->
<cache-config xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://xmlns.oracle.com/coherence/coherence-cache-config"
xsi:schemaLocation="http://xmlns.oracle.com/coherence/coherence-cache-config http://xmlns.oracle.com/
coherence/coherence-cache-config/1.0/coherence-cache-config.xsd">

<!-- Prefix all service names to ensure no unintended clustering with other cache servers -->
<scope-name>com.oracle.ecm.axf</scope-name>

<defaults>
<serializer>pof</serializer>
</defaults>

<caching-scheme-mapping>
<!-- Specific cache mappings to avoid configuration errors -->

<!--
Cache limits are set per cache per node, so the total limit is the sum of all the cache limits on
this node.

As there are 3 caches the storage will be a maximum of 3 x 100MB = 300MB,
in addition to 3 x 5MB = 15MB of near cache for clients.
-->
<cache-mapping>
<cache-name>AXF</cache-name>
<scheme-name>CustomNearCacheScheme</scheme-name>
</cache-mapping>
<cache-mapping>
<cache-name>AXF_CONVERSATION</cache-name>
```

```
<scheme-name>CustomNearCacheScheme</scheme-name>
</cache-mapping>
<cache-mapping>
<cache-name>AXF_EVENT</cache-name>
<scheme-name>CustomNearCacheScheme</scheme-name>
</cache-mapping>
</caching-scheme-mapping>

<caching-schemes>
<near-scheme>
<scheme-name>CustomNearCacheScheme</scheme-name>
<front-scheme>
<local-scheme>
<scheme-ref>SizeLimitedLocalScheme</scheme-ref>
</local-scheme>
</front-scheme>
<back-scheme>
<distributed-scheme>
<scheme-name>CustomDistributedCacheScheme</scheme-name>
<backing-map-scheme>
<local-scheme>
<scheme-name>SizeLimitedLocalScheme</scheme-name>
<eviction-policy>HYBRID</eviction-policy>
<!-- 100M -->
<high-units>100</high-units>
<unit-calculator>BINARY</unit-calculator>
<unit-factor>1048576</unit-factor>
<expiry-delay>4h</expiry-delay>
</local-scheme>
</backing-map-scheme>
<autostart>true</autostart>
</distributed-scheme>
</back-scheme>
<invalidation-strategy>present</invalidation-strategy>
</near-scheme>

<local-scheme>
<scheme-name>SizeLimitedLocalScheme</scheme-name>
<eviction-policy>HYBRID</eviction-policy>
<!-- 5M -->
<high-units>5</high-units>
<unit-calculator>BINARY</unit-calculator>
<unit-factor>1048576</unit-factor>
<expiry-delay>4h</expiry-delay>
<cachestore-scheme></cachestore-scheme>
</local-scheme>
</caching-schemes>
</cache-config>
```



# 5

## Configuring the BPEL Imaging Solution

You can configure the BPEL Imaging solution using Application Adapters for Oracle WebCenter. This includes configuring Imaging Solution components - BPEL connection using a Credential Store Framework (CSF) alias, AXF tables, and solution accelerator. The Imaging Solution options include clustering for AXF and alternate authentication and login.

This chapter covers the following topics:

- [Configuring the BPEL Connection](#)
- [Configuring the AXF Tables or Applying a Solution Accelerator](#)
- [Testing Functionality Using the AXF Driver Page](#)
- [Configuring Imaging Solution Options](#)

### Note:

You can provide access to the Imaging solution from Oracle E-Business Suite Oracle Application Framework (OAF) applications. For information, see [Configuring Other Services on OAF Pages \(Optional\)](#).

### Note:

To make certain modifications to Imaging solutions, such as changing the profiles displayed to users in the Task List and task actions and metadata displayed to users in the Task Viewer, you can use the Imaging Solution Editor. For information about the Solution Editor, see *Solution Editor Page in Administering Oracle WebCenter Content: Imaging*.

## 5.1 Configuring the BPEL Connection

Configuring the BPEL connection for use by an AXF solution involves the following tasks:

- [Creating a CSF Credential Alias](#)
- [Creating a Connection in Imaging Connections](#)
- [Referencing the Connection in the AXF\\_SOLUTION\\_ATTRIBUTES Table](#)

### 5.1.1 Creating a CSF Credential Alias

The Credential Store Framework (CSF) enables you to create a user name/password alias for use in an Imaging connection configuration. With a CSF alias, you supply a

key instead of a user name and password, and use this key in creating an Imaging connection. (You can use one CSF key for multiple imaging connections.)

For information about creating keys and aliases, see Key and Certificate Storage in Oracle Fusion Middleware in *Administering Oracle Fusion Middleware*.

 **Note:**

When implementing an AXF solution using MS LDAP as a user repository, the credential user must be the administrator belonging to the Administrators group within the Builtin CN in MS LDAP. The AXF uses this credential user when making certain calls (for example, when retrieving a task list from SOA). In addition, you must configure the Group Base DN (in WLS Console, Provider Specific) to import CN=Builtin.

## 5.1.2 Creating a Connection in Imaging Connections

Follow these steps to create a connection and specify the CSF alias key, BPEL server name, and port.

1. Log in to the Imaging system as an administrator.
2. From Manage Connections in the side pane, click the + (plus) sign document icon for creating a BPEL connection.
3. Enter a name for the connection, and click **Next**.

This name is referenced in the AXF\_SOLUTION\_ATTRIBUTES table to establish the connection.

4. On the BPEL Settings step, enter BPEL connection settings.
  - HTTP Front End Address: `http://hostname:BPEL server port`
  - Credential Alias (previously created, as described in [Creating a CSF Credential Alias](#))
  - Provider: `t3://hostname:BPEL server port`

For example:

- HTTP Front End Address: `http://hostname:port`
  - Credential Alias: `axf.credential`
  - Provider: `t3://hostname:port`
5. Click **Next**, then **Submit**.

## 5.1.3 Referencing the Connection in the AXF\_SOLUTION\_ATTRIBUTES Table

Follow this step to identify the Imaging connection to the AXF solution, as described in [Creating a Connection in Imaging Connections](#). Run the command from SQL Developer (or other suitable tool that can connect to the imaging database schema).

 **Note:**

If using an implementation accelerator (including the HelloBPEL solution), this step is not needed.

1. Run the configuration row specified below, where:

```
Insert into AXF_SOLUTION_ATTRIBUTES (SOLUTION_NAMESPACE,PARAMETER_KEY,PARAMETER_VALUE) values \
('InvoiceProcessing','BPEL_CONNECTION','axfconnection');
```

## 5.2 Configuring the AXF Tables or Applying a Solution Accelerator

After completing installation and configuration of the Imaging solution, complete one of the following steps for implementation:

- Configure the AXF tables and AXF-related Oracle E-Business Suite or Oracle PeopleSoft tables. Table descriptions and example implementations are provided in [BPEL Imaging Solution Reference](#).

OR

- Apply a solution implementation accelerator. To obtain an accelerator, contact your systems integrator, Oracle Consulting, or Oracle Support.

## 5.3 Testing Functionality Using the AXF Driver Page

Access the driver page of the AXF web application to verify functionality. For more information about the driver page, see Verifying the AXF for BPEL Installation and Configuration with HelloWorld in *Installing and Configuring Oracle WebCenter Content*.

## 5.4 Configuring Imaging Solution Options

Following are the optional configurations for the Imaging solution:

- [Configuring Automatic Imaging Viewer Login](#)
- [Allowing Oracle WebLogic Server/Business Application Users to Perform Tasks](#)
- [Configuring Clustering for AXF in Imaging Managed Servers](#)
- [Configuring Autotask Locking](#)
- [Updating the Task Payload Using XPATH](#)
- [Targeting a Single Conversation With Multiple Window Instances Displayed](#)
- [Adding a Validation](#)
- [Deploying Custom Commands](#)
- [Configuring Chained Commands and User Interface Components](#)
- [Configuring or Disabling a Dynamic Data Table](#)

- [Reenabling Paperclip Attachments \(Oracle E-Business Suite and Imaging Only\)](#)
- [Resizing Oracle PeopleSoft Popup Solution Windows](#)

## 5.4.1 Configuring Automatic Imaging Viewer Login

Follow the steps below to prevent users from having to log in to Imaging the first time they access the Imaging viewer per session. You set the front end HTTP host and port so that the Imaging hostname and the AXF server hostname match.

Follow these steps to set the front end HTTP host and port:

1. Open the Oracle WebLogic Server Administration Console.
2. On the Home Page, click **Servers** under the Environment heading.
3. Click the Imaging server from the servers listed in the **Name** column.
4. Click the Protocols tab, then the HTTP tab.
5. Make changes in the **Frontend Host** field and appropriate frontend port field. (If using SSL, specify a value in the **Frontend HTTPS Port** field. If not using SSL, specify a value in the **Frontend HTTP Port** field.)
6. Click **Save**.

## 5.4.2 Allowing Oracle WebLogic Server/Business Application Users to Perform Tasks

You can allow the authenticated Oracle WebLogic Server user to perform tasks, such as BPEL tasks, rather than the user passed from Oracle E-Business Suite or Oracle PeopleSoft. This allows you to use different user stores for Oracle E-Business Suite/Oracle PeopleSoft and the Oracle WebLogic Server.

The related AXF\_SOLUTION\_ATTRIBUTES table configuration is shown in [Table 5-1](#); also see [AXF\\_SOLUTION\\_ATTRIBUTES Table](#).

**Table 5-1 AXF\_SOLUTION\_ATTRIBUTES Table, USERNAME\_PASS\_THROUGH Configuration**

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AXF	USERNAME_PASS_THROUGH	TRUE or FALSE

where:

- TRUE (default): Uses the passed-in user from Oracle E-Business Suite or Oracle PeopleSoft to perform tasks.
- FALSE: Uses the authenticated Oracle WebLogic Server user to perform tasks.

 **Note:**

For Managed Attachments configurations, the USERNAME\_PASS\_THROUGH parameter should be set to TRUE. The AXF\_ATTACHMENTS\_CONFIG.SQL script for Managed Attachments (described in [Configuring Elements for UCM Web Service Implementation of Managed Attachments](#)) sets this value to TRUE. If no value is provided, the value defaults to TRUE. Also see [Restoring Business Application User Pass Through for Managed Attachments](#).

 **Note:**

After changing the value of USERNAME\_PASS\_THROUGH in the database, stop and start the Imaging application in the Oracle WebLogic Server Administration Console.

### 5.4.3 Clustering for AXF in Imaging Managed Servers

To enhance performance and scalability, AXF in Imaging Managed Servers uses coherence by default for its data caching solution. The Oracle Coherence license available in Oracle WebCenter Content: Imaging is *restricted*. By default, Imaging supports a local caching scheme without any distributed data caching. In a High Availability (HA) environment, the cached entries are not shared across Java Virtual Machines (JVMs) or other machines.

In a clustered system, AXF requires the cache to be distributed. If the cache is not distributed, conversation might not be available in some machines.

For more information about configuring coherence, see *Configuring and Managing Coherence Clusters in Administering Clusters for Oracle WebLogic Server*.

Following topics provide information on coherence caches:

- [Configuring Coherence Caches in WebCenter Content: Imaging](#)
- [Overriding the Default Configuration](#)

For information on the basic types of cache modes provided by Coherence, see *Introduction to Coherence Caches in Developing Applications with Oracle Coherence*.

#### 5.4.3.1 Configuring Coherence Caches in WebCenter Content: Imaging

Following table lists the AXF Coherence cache entry that you can configure for WebCenter Content: Imaging:

**Table 5-2 AXF Coherence cache in WebCenter Content: Imaging**

Cache Name	Purpose	Default Coherence Configuration
oracle.imaging.axf	Cache for AXF	Imaging60MinuteCache

Following table enlist the default Coherence configuration properties:

**Table 5-3 Coherence Configuration Properties**

Default Configuration	Eviction Policy	High Units	Expiration Delay
Imaging60MinuteCache	Hybrid	0(No Limit)	1 hour

Defines the coherence configuration properties, where:

- High Units is the maximum number of units that can be placed in the cache before pruning occurs.
- Hybrid Eviction Policy chooses the entries to evict based on the combination (weighted score) of how often and how recently they were accessed. Those entries that are accessed least frequently and those that were not accessed for the longest period are evicted first.
- Expiration Delay specifies the amount of time from the last update till the time the entries are marked as expired. Any attempt to read an expired entry results in reloading the entry from the configured cache store. Expired values are periodically discarded from the cache.

### 5.4.3.2 Overriding the Default Configuration

By default, Oracle WebCenter Content: Imaging uses the local data cache.

To override the default configuration:

1. Configure WebLogic Clusters (as needed by High Availability configuration) and Coherence clusters.

For more information, see *Configuring and Managing Coherence Clusters in Administering Clusters for Oracle WebLogic Server*.

2. Define a cache configuration file to override the default configuration.

Refer to the sample override configuration file available at:

`MW_HOME/ECM_HOME/axf/coherence/coherence-override.xml`, which has AXF cache configured as a distributed cache.

Other than the AXF cache, the sample override file has configurations for three other render pipeline caches, which **must not be modified**. Make sure you use the same sample file if the configuration matches your needs.

If the configuration provided in the sample override file does not match your needs, create your own custom override file. For more information, see *Configuring Caches and Cache Configuration by Example in Developing Applications with Oracle Coherence*.

You must use the exact names of the available caches provided in [Table 5-2](#) in the cache configuration file.

For example, by default the AXF cache is uniquely identified by the name `oracle.imaging.axf` and maps to the local scheme `Imaging60MinuteCache`. To override the AXF cache to use a distributed scheme, you must specify the cache name correctly.

```
<cache-mapping>
  <cache-name>oracle.imaging.axf</cache-name>
```

```
<scheme-name>my_distributed_scheme</scheme-name>
</cache-mapping>
```

where, *my\_distributed\_scheme* refers to your newly defined distributed caching scheme.

Ensure that the custom override file also includes the three other render pipeline caches. You can obtain the names of these caches and their corresponding caching schemes from the sample override file.

#### Note:

To override a cache configuration file at runtime, the cache configuration file must be bound to a Java Naming and Directory Interface (JNDI) name. The JNDI name that is defined for using the *override-property* in Oracle WebCenter Content: Imaging in the GAR file is *ImagingGar*. Use the same JNDI name to override a cache configuration file.

3. After defining the configuration file, override the default cache configuration file using the WebLogic Scripting Tool (WLST) on the cluster.

For more information, see *Overriding a Cache Configuration File* in *Administering Clusters for Oracle WebLogic Server*.

You can also override the default cache configuration from the *WebLogic Server Administration Console*. Any configuration changes that persist on the Admin server by default, remains even after an upgrade of Oracle WebCenter Content: Imaging.

## 5.4.4 Configuring Autotask Locking

In AXF configurations with multiple simultaneous users, collisions may occur when end users attempt to acquire tasks in Autotask mode. (For details about Autotask mode, see [Autotask Command](#)). To prevent collisions, enable autotask locking for each named BPEL connection in the AXF database. When locking is enabled, only one user may automatically acquire a task at a given time.

Enabling the lock functionality prevents an error from appearing on the Task List if two users acquire a task simultaneously, and is the recommended setting. In situations where simultaneous acquisition is unlikely, disabling the lock functionality may increase performance.

The setting is configured in the [AXF\\_SOLUTION\\_ATTRIBUTES Table](#) by inserting the following row:

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
BPEL.default	USE_AUTOTASK_LOCKING	TRUE

## 5.4.5 Updating the Task Payload Using XPATH

The Update Task From Procedure command calls a stored pl/sql procedure using a specified data source and updates the task payload using XPATH, as described in [Update Task From Procedure Command](#).

### 5.4.5.1 Example PL/SQL Procedure For Updating the Task Payload

The pl/sql procedure that follows loads the xml into the DOM, retrieves the invoice ID, queries for the invoice amount for that transaction, and based on that amount, returns a set of users.

To use this example, modify this procedure to retrieve the specific pieces of data from the payload you would like. The only requirement is that the pl/sql function you create must take a VARCHAR2, set up two VARCHAR2 out parameters, and return an INTEGER. The name of the function is in the AXF configuration.

```
create or replace FUNCTION axfretrieveuserlist(xmlPayload IN VARCHAR2, pDataString OUT VARCHAR2,
pMsgString OUT VARCHAR2) RETURN INTEGER IS
```

```
    v_node    xmldom.DOMNode;
    v_node2   xmldom.DOMNode;
    v_nl      xmldom.DOMNodeList;
    v_doc     xmldom.DOMDocument;
    v_elem    xmldom.DOMELEMENT;
    v_parser  xmlparser.Parser;
    invoiceID VARCHAR2(256);
    invoiceAmount NUMBER(8,2);
    userList  VARCHAR2(256);
    rtnCode   INTEGER;
```

```
BEGIN
```

```
    rtnCode := 0; -- execute CMD_NO_DATA
    -- rtnCode := -1; -- execute CMD_ERROR
    pmsgstring := ''; -- empty msg string (task is updated with this value)
    v_parser := xmlparser.newParser;
    xmlparser.parseBuffer(v_parser, xmlPayload);
    v_doc := xmlparser.getDocument(v_parser);
    xmlparser.freeParser(v_parser);

    -- Retrieve the invoice ID
    v_nl := xmldom.getElementsByTagName(v_doc, 'invoiceID');
    v_node := xmldom.item(v_nl, 0);
    v_node2 := xmldom.getFirstChild(v_node);
    invoiceID := xmldom.getNodeValue(v_node2);

    -- Retrieve Invoice Amount for given invoice id
    select INVOICE_AMOUNT into invoiceAmount from ap_invoices_all where INVOICE_ID = invoiceid;

    if invoiceamount > 10000 then
        pDatastring := 'jlondon';
        rtnCode := 1; -- execute CMD_DATA
    else
        pDatastring := 'jcooper,mtwain';
        rtnCode := 1; -- execute CMD_DATA
        pmsgstring := '';
    end if;

    RETURN rtnCode;
```

```
END;
```



## 5.4.6 Targeting a Single Conversation With Multiple Window Instances Displayed

You can configure the Oracle E-Business Suite adapter to target the same instance/ conversation when multiple instances of a particular Oracle E-Business Suite window are displayed. Enable this feature using the **AXF\_MULTINSTANCE** parameter in the [AXF\\_PROPERTIES Table \(Oracle E-Business Suite\)](#).

- If AXF\_MULTINSTANCE is set to TRUE, each Oracle E-Business Suite window is treated as a separate conversation and a separate Imaging or AXF window is targeted.
- If AXF\_MULTINSTANCE is set to FALSE (default), each Oracle E-Business Suite instance window is treated as the same conversation and uses the same Imaging or AXF target window.

## 5.4.7 Adding a Validation

The Validate Task command validates BPEL system attribute or BPEL payload data, and based on validation results, executes a subsequent command, as described in [Validate Task Command](#).

The following example and corresponding steps add a validation that verifies that a Transaction ID is present before allowing a task to complete. This example assumes that you have installed the Invoice Processing solution implementation accelerator data.

 **Note:**

Apply this configuration change only in use cases where users must create the business application invoice before completing the task. This configuration would not apply in use cases where users may not create an invoice before completing the task (typically, for example, when the task is being completed with an outcome of SupplierMaintenance).

1. Add the following row to the AXF\_COMMANDS table:

**Table 5-4 Example AXF\_COMMANDS Table**

SOLUTION_NAMESPACE	COMMAND_CLASS	COMMAND_NAMESPACE
InvoiceProcessing	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	ValidateTransactionID

2. Add the rows shown in [Table 5-5](#) to the AXF\_SOLUTION\_PARAMETERS table.  
The following configuration validates that the invoice has been saved (Invoice Transaction ID is not 0). If it is 0, the command reports the error message specified in the FAIL\_MESSAGE parameter.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table 5-5 Example ValidateTask Command in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	ATTRIBUTE_TO_VALIDATE	XPATH:InvoiceProcessing_TransactionID
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	CMD_ON_PASS	CompleteInvoice
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	REGULAR_EXPRESSION	[^0]
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	FAIL_MESSAGE	Please save the transaction before completing the task.

- In the [AXF\\_ACTIONS Table](#), edit the row in which the Complete Task is configured, replacing the Complete action's COMMAND\_NAMESPACE column with the ValidateTransactionID's command namespace.

**Table 5-6 AXF\_ACTIONS Table**

ACTION_ID	VIEW_ID	DISPLAY_NAME	COMMAND_NAMESPACE	MENU_ORDER
CompleteInvoice	/TaskViewer.jspx	Complete Invoice	ValidateTransactionID	3

## 5.4.8 Deploying Custom Commands

You can also deploy custom commands to work within the AXF infrastructure. Custom commands must implement the `oracle.imaging.axf.commands.AxfCommand` interface. The `execute(AxfRequest)` method is invoked by the infrastructure. Configure the implementation to execute in the AXF configuration database.

In addition, commands may implement the `oracle.imaging.axf.commands.ValidatableCommand` interface, which provides a way for the AXF infrastructure to validate the configuration and operation of a command without executing it to provide a system command status.

## 5.4.9 Configuring Chained Commands and User Interface Components

Some AXF commands have parameter keys that specify what occurs after the command completes, allowing you to chain them. For example, [Table 5-7](#) shows a portion of the AXF\_SOLUTION\_PARAMETERS table. After the CompleteTask command executes, additional AXF commands are executed (StartInvoiceProcessing and AutoOpenTask, based on program logic).

**Table 5-7 Example AXF\_SOLUTION\_PARAMETERS Table for CompleteTask Command (InvoiceProcessing Solution)**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
DuplicateInvoice	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	CMD_AUTOTASK_OFF	StartInvoiceProcessing

**Table 5-7 (Cont.) Example AXF\_SOLUTION\_PARAMETERS Table for CompleteTask Command (InvoiceProcessing Solution)**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
DuplicateInvoice	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	CMD_AUTOTASK_ON	AutoOpenTask
DuplicateInvoice	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	OUTCOME	DUPLICATE_INVOICE

## 5.4.10 Configuring or Disabling a Dynamic Data Table

In the Task Viewer, you can display a table of dynamic data from the BPEL payload XML, such as General Ledger lines for an invoice processing solution, as shown in the bottom tabs in [Figure 1-5](#). You configure the table in the [AXF\\_METADATA\\_BLOCKS Table](#) and its data lines in the [AXF\\_METADATA\\_ATTRIBUTES Table](#). For information on formatting XML data in the BPEL payload, see [Formatting XML Data For a Dynamic Data Table](#); also see [Task Viewer Web Tool](#).

The bottom row of [Table 5-8](#) shows an example dynamic data table called *GL Lines* configured.

**Table 5-8 Example AXF\_METADATA\_BLOCKS Table**

BLOCK_ID	BLOCK_LOCATION	LABEL	DISPLAY_ORDER	TASK_FLOW_ID	SOLUTION_NAMESPACE	BLOCK_TYPE	METADATA_STYLE
1	LEFT_SIDEBAR	Summary	1	axf-taskviewer-tfd	InvoiceProcessing	METADATA	null
2	LEFT_SIDEBAR	Comments	2	axf-taskviewer-tfd	InvoiceProcessing	COMMENT	null
3	BOTTOM_PANEL	GL Lines	3	axf-taskviewer-tfd	InvoiceProcessing	METADATA	TABLE

[Table 5-9](#) shows the GL Lines table's data lines configured. This example results in three data columns in the table. It assumes that the XPATH attributes exist in the [AXF\\_XPATH\\_ATTRIBUTES Table](#).

Fields not shown include: DATA\_TYPE=String

**Table 5-9 Example AXF\_METADATA\_ATTRIBUTES Table for Dynamic Data Table**

BLOCK_ID	ATTRIBUTE_ID	LABEL	ATTRIBUTE_KEY	IS_XPATH	DISPLAY_ORDER
2	8	Line Number	DistributionLines_LineNumber	TRUE	0
2	9	Dist Account	DistributionLines_DistributionAccount	TRUE	1
2	10	Amount	DistributionLines_Amount	TRUE	2

### 5.4.10.1 Formatting XML Data For a Dynamic Data Table

After adding the table in the [AXF\\_METADATA\\_BLOCKS Table](#) and configuring its data lines in the [AXF\\_METADATA\\_ATTRIBUTES Table](#), follow the guidelines below to ensure that the XML data in the BPEL payload is correctly formatted for display in the table.

Below is an XML sample for display at any level within the XML payload. The *First column XPATH* retrieves the parent and its peer elements (*collectionItem*). Each of the configured XPATHs point to an *itemValue* element used to retrieve the cell values for the table from each *collectionItem*.

#### Note:

All columns must display within the same direct parent element.

```
<rootElement>
  <collectionContainerElement>
    <collectionItem>                                <--First row for table
      <itemValue1>value1</itemValue1>                <--First column XPATH
      <itemValue2>value2</itemValue2>
      <itemValue3>value3</itemValue3>
    </collectionItem>
    <collectionItem>                                <--Second row
      <itemValue1>value1</itemValue1>
      <itemValue2>value2</itemValue2>
      <itemValue3>value3</itemValue3>
    </collectionItem>
    <collectionItem>
      <itemValue1>value1</itemValue1>
      <itemValue2>value2</itemValue2>
      <itemValue3>value3</itemValue3>
    </collectionItem>
  </collectionContainerElement>
</rootElement>
```

The first column XPATH for the above XML should be similar to the following:

```
/task:payload/task:rootElement/collectionContainerElement/collectionItem/itemValue1
```

### 5.4.10.2 Hiding the Bottom Panel in the Task Viewer

If your imaging solution does not utilize the bottom panel on the Task Viewer, you can disable it in the AXF solution. For example, for an invoice processing solution, you may want to hide the bottom panel displaying General Ledger lines. Hiding the panel increases performance speed and page space.

Follow these steps to hide the bottom panel:

1. Using a tool such as Oracle SQL Developer, open a connection to the AXF database.
2. Run the following query, and note the BLOCK\_IDs in use for the bottom panel:

```
SELECT BLOCK_ID FROM AXF_METADATA_BLOCKS WHERE BLOCK_LOCATION = 'BOTTOM_PANEL'
```

3. Run the following command to delete lines from the AXF\_METADATA\_ATTRIBUTES table, replacing *BLOCK\_ID* with the ID you identified in step 2:

```
DELETE FROM AXF_METADATA_ATTRIBUTES where BLOCK_ID = BLOCK_ID;insert BLOCK_ID
from previous step;
```

4. Run the following command to delete lines from the AXF\_METADATA\_BLOCKS table.

```
DELETE FROM AXF_METADATA_BLOCKS WHERE BLOCK_LOCATION = 'BOTTOM_PANEL'
```

5. Click the **Clear Configuration Cache** button on the driver page.

## 5.4.11 Reenabling Paperclip Attachments (Oracle E-Business Suite and Imaging Only)

Installing and configuring the Managed Attachments solution automatically disables the Oracle E-Business Suite attachments paperclip icon and functionality. To reenble the paperclip functionality for an Imaging Solution only configuration, follow these steps to disable the Managed Attachments solution:

### Note:

This section applies to Oracle E-Business Suite use only.

1. Open the AXF\_CONFIGS table (Oracle E-Business Suite) table.
2. In the FORMFUNCTION field, rename the AXF\_MANAGED\_ATTACHMENTS entry. For details, see [AXF\\_CONFIGS Table \(Oracle E-Business Suite\)](#).

For example, rename the entry as follows:

```
AXF_MANAGED_ATTACHMENTS-DISABLED
```

### Note:

To reenble the Managed Attachments solution, change the FORMFUNCTION field back to the following entry:

```
AXF_MANAGED_ATTACHMENTS
```

3. Verify that the AXF\_PAPERCLIP property in the AXF\_PROPERTIES table is set to TRUE. For more information, see [AXF\\_PROPERTIES Table \(Oracle E-Business Suite\)](#).

**Table 5-10 AXF\_PROPERTIES Values For PaperClip Use**

PROPNAME	PROPVALUE
AXF_PAPERCLIP	Set to TRUE to enable the paperclip option, or FALSE to disable it. (Value must be in uppercase characters.)

## 5.4.12 Resizing Oracle PeopleSoft Popup Solution Windows

You can change the default system-wide size for all Oracle PeopleSoft popup windows that display as part of solutions. Note the following:

- The default popup window size is 600 pixels high by 800 wide, set in the [PS\\_AXF\\_PROPERTIES Table](#). When a size is set in this table, users cannot set and save popup window size themselves.
- To change window size, enter new values in the table, as shown in [PS\\_AXF\\_PROPERTIES Table](#).
- To remove the popup window size (and allow individual users to change and save popup window size using standard browser controls), remove the WINDOW\_HEIGHT and WINDOW\_WIDTH rows from the [PS\\_AXF\\_PROPERTIES Table](#).

# 6

## Configuring the Managed Attachments Solution

With Application Adapters for Oracle WebCenter, you can configure the Managed Attachments solution for Oracle E-Business Suite, Oracle PeopleSoft, or another business application.

To configure the Managed Attachments solution, you must run the configuration scripts, configure Content Server components, customize the solution, integrate Oracle AutoVue and Oracle WebCenter Enterprise Capture, and configure authentication and security.

### Note:

For background information on the Managed Attachments solution, see [About the Managed Attachments Solution](#).

Following are the topics covered:

- [System Requirements for the Managed Attachments Solution](#)
- [Running Configuration Scripts to Enable Managed Attachments](#)
- [Configuring the Content Server Components](#)
- [Configuring the Enterprise Application Adapter Framework](#)
- [Configuring Managed Attachments Settings](#)
- [Customizing the Managed Attachments Solution](#)
- [Configuring Authentication and Security](#)
- [Configuring Oracle AutoVue Document Viewing](#)
- [Configuring Oracle WebCenter Enterprise Capture](#)
- [Configuring Oracle Distributed Document Capture](#)
- [Testing the Managed Attachments Solution](#)
- [Configuring Content Server Logging](#)
- [Uninstalling Adapter Components on Content Server](#)

### 6.1 System Requirements for the Managed Attachments Solution

In addition to all other requirements listed in [Adapter System Requirements](#), the Managed Attachments solution includes additional requirements. General Managed

Attachments requirements are listed in this section, and supported configuration and certification information, such as browsers, is available at:

<http://www.oracle.com/technetwork/middleware/webcenter/content/documentation/documentation-155348.html>

### Oracle WebCenter Content: Imaging

Installation of Imaging is required, even if only configuring the Managed Attachments solution. This is because AXF is part of the Imaging deployment.

### Oracle WebCenter Content Server

The Managed Attachments solution supports the following Content Server search engines.

- Metadata Only Search
- Database – Full Text Search
- Oracle Text – Full Text Search

#### Note:

The Folders\_g component by default sets a variable called **AuthorDelete=true**, which allows users without delete privileges on a security group to delete documents if they are the author. If using the Folders\_g Content Server component with the Managed Attachments solution, be aware that this variable's setting may override Managed Attachments dPrivilege or AppAdapterGrantPrivilege deletion settings.

### Oracle E-Business Suite

- For Managed Attachments with Oracle E-Business Suite **Forms-based entities**, Managed Attachments requires that the EBS FND attachments framework be configured for the specific entity. Although Managed Attachments is an alternative attachments framework to FND attachments, Managed Attachments leverages the underlying FND attachments infrastructure.
- For Managed Attachments with Oracle E-Business **OAF-based entities**, Managed Attachments requires that the OAF page associated with the entity have a *Personalize Page* option with the *About this page* link. The OAF page should support site level personalization so that the Managed Attachment button can be added manually. The *About this page* link obtains the OAF entity details, such as the primary key. OAF-based pages without this option are not supported for Managed Attachments.

## 6.2 Running Configuration Scripts to Enable Managed Attachments

Based on the steps described in the sections below, you can run the configuration scripts to enable Managed Attachments.

For more information on the configuration scripts, see [Table 6-1](#). The first script configures AXF elements, and is required for all Managed Attachments configurations,



including the Enterprise Application Adapter Framework. The remaining scripts apply to specific business applications as noted in [Table 6-1](#).

- [Configuring Elements for UCM Web Service Implementation of Managed Attachments](#)
- [Configuring Elements for IPM Web Service Implementation of Managed Attachments](#)
- [Enabling Managed Attachments for Oracle E-Business Suite Forms Applications](#)
- [Enabling Managed Attachments for Oracle E-Business Suite OAF Applications](#)
- [Enabling Managed Attachments for Oracle PeopleSoft](#)

**Table 6-1 SQL Scripts for Configuring Managed Attachments**

SQL Script	Applies To	Description
AXF_ATTACHMENTS_CONFIG.sql	<ul style="list-style-type: none"> <li>• Oracle E-Business Suite Forms</li> <li>• Oracle E-Business Suite OAF</li> <li>• Oracle PeopleSoft</li> <li>• Enterprise Application Adapter Framework (see <a href="#">Configuring the Enterprise Application Adapter Framework</a>)</li> </ul>	<p>AXF script that configures AXF elements such as solutions and commands. See <a href="#">Configuring Elements for AXF Web Service Implementation of Managed Attachments</a>.</p> <p>Run this script on the Oracle WebCenter Content middle tier as the user who owns the Imaging schema.</p>
AXF_EBS_ATTACHMENTS_CONFIG.sql	Oracle E-Business Suite Forms only	<p>Populates the Oracle E-Business Suite Forms tables used by AXF for Managed Attachment access via the Zoom menu within the Oracle E-Business Suite Forms application. See <a href="#">Enabling Managed Attachments for Oracle E-Business Suite Forms Applications</a>.</p> <p>Run this script as the Oracle E-Business Suite plug-in schema user (AXF).</p>
OAF_AXF_EBS_ATTACHMENT_S_CONFIG.sql	Oracle E-Business Suite OAF only	<p>Provides a sample script that populates the Oracle E-Business Suite OAF tables used by AXF for Managed Attachments access. See <a href="#">Enabling Managed Attachments for Oracle E-Business Suite OAF Applications</a>.</p> <p>Run this script as the Oracle E-Business Suite plug-in schema user (AXF).</p>
AXF_PSFT_ATTACHMENTS_CONFIG.sql	Oracle PeopleSoft only	<p>Provides a sample script that populates the PeopleSoft tables used by AXF for Managed Attachments access. See <a href="#">Enabling Managed Attachments for Oracle PeopleSoft</a>.</p> <p>Run this script as an Oracle PeopleSoft user with administrative privileges.</p>

## 6.2.1 Configuring Elements for UCM Web Service Implementation of Managed Attachments

1. On the Fusion Middleware Home, locate the **config.cfg** file in the folder specified below for Oracle E-Business Suite Forms, Oracle E-Business Suite OAF, and Oracle PeopleSoft.

*MW\_HOME/ucm/cs/config/*

2. Modify parameters in the **config.cfg** file to match your environment.
  - a. The MA\_SEARCH\_URL invokes the Content Server attachments framework search, as described in [AXF\\_SOLUTION\\_PARAMETERS Table](#).
  - b. *Configuring MA\_SEARCH\_URL is optional.* The default URL depends on the business application component that is enabled in the Content Server. If AppAdapterEBS is enabled, the MA\_SEARCH\_URL uses Content Server profile as EBSProfile and the template as EBS\_LIST. If AppAdapterPSFT is enabled, the MA\_SEARCH\_URL uses Content Server profile as PSFTProfile and the template as PSFT\_LIST.
  - c. If you want to use a custom template, you must add MA\_SEARCH\_URL parameter to the config.cfg file in the following format:

```
http://ContentServerHost:port/cs/idcplg/_p/min/af/trigger-[ContentServerProfile]?  
IdcService=GET_SEARCH_RESULTS_FORCELOGIN&ResultTemplate=[ResultTemplate]
```

You must change the system name and port for the MA\_SEARCH\_URL parameter to match your Content Server set up. The port number must correspond to that of the web server port of the Content Server

Change the [Content ServerProfile] and [ResultTemplate] values in the MA\_SEARCH\_URL parameter for your configuration.

- For details about customizing profiles, see [Customizing the Content Server Profile Used](#).
- For details about customizing results templates, see [Changing the Result Template](#).

## 6.2.2 Configuring Elements for AXF Web Service Implementation of Managed Attachments

Follow these steps to run AXF\_ATTACHMENTS\_CONFIG.sql, an AXF script that configures AXF elements such as solutions and commands. This script is required for Managed Attachments for all business applications.

1. On the Fusion Middleware Home, locate the script in the folders specified below for your business application.

- For Oracle E-Business Suite Forms:

*MW\_HOME/ECM\_HOME/axf/adapters/ebs/R11/*

*MW\_HOME/ECM\_HOME/axf/adapters/ebs/R12/*

- For Oracle E-Business Suite OAF:

*MW\_HOME/ECM\_HOME/axf/adapters/ebs/oaf/*

- For Oracle PeopleSoft:  
`MW_HOME/ECM_HOME/axf/adapters/psft/`
  - For Enterprise Application Adapter Framework:  
`MW_HOME/ECM_HOME/axf/adapters/framework/`
2. Modify parameters in the **AXF\_ATTACHMENTS\_CONFIG.sql** script to match your environment.
    - a. Change the system name and port for the `RIDC_CONNECTION_STR` parameter to match your Content Server installation. The port number should correspond to that of the Content Server's Intradoc server port that receives RIDC calls. (To find the value for the Content Server port, locate the `IntradocServerPort` config value in `config.cfg`.)
    - b. Change the system name and port for the `UCM_CONNECTION_STR` parameter to match your Content Server installation. The port number should correspond to that of the Content Server's web server port.
    - c. Change the [Content ServerProfile] and [ResultTemplate] values in the `UCM_CONNECTION_STR` parameter for your configuration. These values are used in the Managed Attachments URL that invokes the Content Server attachments framework search, as described in [AXF\\_SOLUTION\\_PARAMETERS Table](#).
      - Profile values include: *EBSProfile* (default), *PSFTPProfile*, and *UniversalProfile* (for the Enterprise Application Adapter Framework). For details about customizing profiles, see [Customizing the Content Server Profile Used](#).
      - Result template values include: *EBS\_LIST* (`adapter_list_results_template.htm`), *PSFT\_LIST* (`ps_adapter_list_results_template.htm`), and *Universal\_LIST* (`universal_adapter_list_results_template.htm`, for the Enterprise Application Adapter Framework). For details about customizing results templates, see [Changing the Result Template](#).
  3. On the Oracle WebCenter Content middle tier, log in to the AXF Configuration Database as *the user who owns the Imaging schema* and run the `AXF_ATTACHMENTS_CONFIG.sql` script.

To execute the script, enter:

```
@AXF_ATTACHMENTS_CONFIG.sql
```

 **Note:**

For information about creating schemas before or after Oracle WebCenter Content installation, see [Creating the Database Schemas in \*Installing and Configuring Oracle WebCenter Content\*](#).

## 6.2.3 Enabling Managed Attachments for Oracle E-Business Suite Forms Applications

If configuring the adapter for Oracle E-Business Suite Forms, follow these steps to run `AXF_EBS_ATTACHMENTS_CONFIG.sql`, an Oracle E-Business Suite plug-in script that configures the Zoom menu to enable the Managed Attachments solution within the Oracle E-Business Suite system.

1. Locate the script corresponding to the implementation in the folder specified below.

```
MW_HOME/wccontent/axf/adapters/ebs/R11/
```

```
MW_HOME/wccontent/axf/adapters/ebs/R12/
```

2. In the `AXF_EBS_ATTACHMENTS_CONFIG.sql` script, change the **host name** and **port** to match your Imaging server.

If you are using UCM web service implementation and the value of the webkey is anything other than `cs`, add the following in `AXF_EBS_ATTACHMENTS_CONFIG.sql` :

```
Insert into AXF_COMMAND_PARAMETERS
(PARAMETERID,EVENTID,PARAMETERNAME,DATASOURCENAME,DATABLOCKNAME,FIELDNAME,CONSTANTVALUE,CREATED_BY,CREATION_DATE, LAST_UPDATE_DATE, LAST_UPDATED_BY, LAST_UPDATE_LOGI
N) values
(AXF_COMMAND_PARAMETERS_SEQ.NEXTVAL,v_eventId, 'CS_WEBKEY', 'CONSTANT',null,null,'<
WEBKEY_VALUE>',0,sysdate,sysdate,0,0);
```

3. Log in to the Oracle E-Business Suite database as *the Oracle E-Business Suite plug-in schema user (AXF)* and run the appropriate script.

To execute the script, enter:

```
@AXF_EBS_ATTACHMENTS_CONFIG.sql
```

4. Open the `AXF_FND_MAP` table and delete unneeded rows.

See [AXF\\_FND\\_MAP Table \(Oracle E-Business Suite Forms\)](#). The script inserts multiple rows, allowing you to keep the rows that apply to your particular configuration.

## 6.2.4 Enabling Managed Attachments for Oracle E-Business Suite OAF Applications

In order to link OAF page details with documents checked into Content Server, the OAF page's business entity and primary key values must be stored in the Oracle E-Business Suite OAF AXF database tables described in [Oracle E-Business Suite OAF Tables For the Managed Attachments Solution](#). This configuration involves these steps:


- Populating the database via the `OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql` script, which populates the tables with values for certain sample OAF pages, as described in [Populating the OAF AXF Database Tables With Sample Key Values](#).
- Modify the sample key values for your OAF pages, using values you identify in [Identifying Key Values for Your OAF Pages](#).

- If needed, configure attachments to display on workflow pages, using the steps mentioned in [Configuring Attachments to Display on Workflow Pages](#).

### 6.2.4.1 Populating the OAF AXF Database Tables With Sample Key Values

Table 6-2 lists the sample key values populated by the OAF\_AXF\_EBS\_ATTACHMENTS\_CONFIG.sql script for the specified OAF pages.

- The OAF page location is used as the AXF\_OAF\_PAGE value in the OAF\_AXF\_CONFIGS Table (Oracle E-Business Suite OAF).
- The following key values are used in the OAF\_AXF\_CMD\_PARAMS Table (Oracle E-Business Suite OAF).
  - Entity (businessObjectType); for example, REQ\_HEADERS
  - Primary Key (businessObjectKey1); for example, REQUISITION\_HEADER\_ID
  - View Object (businessObjectValue1); for example, ReqHeadersVO
  - View Attribute (businessObjectValue1 or labelValue1); for example, RequisitionHeaderId

 **Note:** Specify businessObjectType and businessObjectKey1 values that make sense to you for each OAF form. The values must be unique. This can save you time in setup, and allows you to tie multiple OAF pages to the same attachments.

**Table 6-2 OAF Pages Configured By Sample OAF\_AXF\_EBS\_ATTACHMENTS\_CONFIG.SQL Script**

OAF Page	Navigation	Sample Key Values
iProcurement Requisitions	Choose iProcurement, then the Requisitions tab, then click <b>Requisition Description</b>	OAF Page = /oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG <ul style="list-style-type: none"> <li>• Entity = REQ_HEADERS</li> <li>• Primary Key = REQUISITION_HEADER_ID</li> <li>• View Object = ReqHeadersVO</li> <li>• View Attribute = RequisitionHeaderId</li> </ul>
iProcurement Purchase Orders	Choose iProcurement, then the Requisitions tab, then click <b>Order Number</b>	OAF Page = /oracle/apps/pos/changeorder/webui/PosViewPOPG <ul style="list-style-type: none"> <li>• Entity = PO_HEADERS</li> <li>• Primary Key = PO_HEADER_ID</li> <li>• View Object = PosViewHeadersVO</li> <li>• View Attribute = PO_HEADER_ID</li> </ul>
Purchase Orders	Choose Purchasing, then Buyer Work Center, then Orders, then click the <b>Order</b> number	OAF Page = /oracle/apps/po/document/order/webui/OrderPG <ul style="list-style-type: none"> <li>• Entity = PO_HEADERS_MERGE_V</li> <li>• Primary Key = PO_HEADER_ID</li> <li>• View Object = PoHeaderMergeVO</li> <li>• View Attribute = PoHeaderId</li> </ul>

**Table 6-2 (Cont.) OAF Pages Configured By Sample OAF\_AXF\_EBS\_ATTACHMENTS\_CONFIG.SQL Script**

OAF Page	Navigation	Sample Key Values
Suppliers	Choose Purchasing, then Supply Base, then Suppliers. Search by clicking <b>Go</b> , then click the <b>Update</b> icon	OAF Page = /oracle/apps/pos/supplier/webui/QuickUpdatePG <ul style="list-style-type: none"> <li>Entity = PO_VENDORS</li> <li>Primary Key = VENDOR_ID</li> <li>View Object = SupplierVO</li> <li>View Attribute = VendorId</li> </ul>
Request for Quote (RFQ) Header	Choose Purchasing, then Buyer Work Center, then Negotiations, then RFQ, then <b>Header</b>	OAF Page = /oracle/apps/pon/negotiation/creation/webui/ponDefineHdrPG <ul style="list-style-type: none"> <li>Entity = PON_AUCTION_HEADERS_ALL</li> <li>Primary Key = AUCTION_HEADER_ID</li> <li>View Object = AuctionHeadersAllVO</li> <li>View Attribute = AuctionHeaderId</li> </ul>
Request for Quote (RFQ) Line	Choose Purchasing, then Buyer Work Center, then Negotiations, then RFQ, then <b>Lines</b> . Click the <b>GO</b> button.	OAF Page = /oracle/apps/pon/negotiation/creation/webui/ponItemHeaderPG <ul style="list-style-type: none"> <li>Entity = PON_AUCTION_ITEM_PRICES_ALL</li> <li>Primary Key = AUCTION_HEADER_ID &amp; LINE_NUMBER</li> <li>View Object = AuctionItemPricesAllVO</li> <li>View Attributes = AuctionHeaderId &amp; LineNumber</li> </ul>
Projects	Choose Project Manager, then Projects: Delivery, then Project List. Click Project name, then the <b>Attachments</b> tab	OAF Page = /oracle/apps/pa/project/webui/ProjAttachmentPG <ul style="list-style-type: none"> <li>Entity = PA_PROJECTS</li> <li>Primary Key = PROJECT_ID</li> <li>View Object = ProjAttachmentsVO</li> <li>View Attribute = PROJECT_ID</li> </ul>

Follow these steps to run the script:

- Do one of the following:
  - Locate the OAF\_AXF\_EBS\_ATTACHMENTS\_CONFIG.sql script in this folder:  
*MW\_HOME/wccontent/axf/adapters/ebs/oaf/*
- Log in to the Oracle E-Business Suite database as *the Oracle E-Business Suite plug-in schema user (AXF)*.
- In the script, replace the host name and port to match your Imaging server host name and port.
- Run the OAF\_AXF\_EBS\_ATTACHMENTS\_CONFIG.sql script.

To execute the script, enter:

```
@OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql
```

## 6.2.4.2 Identifying Key Values for Your OAF Pages

Following steps enables you in identifying the primary field(s) to link the OAF page with Managed Attachments functionality, and identifying the page name and fields to use as labels.

How you identify the needed information depends on the OAF page's contents, as described in the following scenarios:

- [With Both Attachment Information and Primary Keys Present](#)
- [With Attachment Information Present But Not Primary Keys](#)
- [With Neither Attachment Information Nor Primary Keys Present](#)

### 6.2.4.2.1 With Both Attachment Information and Primary Keys Present

Ideally, the needed Oracle E-Business Suite attachment and primary key details are present in the OAF page's XML file. In this case, follow these steps to locate required mapping information.

1. Navigate to the OAF page and click the **About this page** link at the bottom.  
For example, navigate to Employee Self Service, then the Appraisals OAF page, and click the **About this page** link.
2. Note the full path of the page's XML file. For example:  
`/oracle/apps/per/selfservice/appraisals/webui/EmpMyAppraisalsPG`
3. Search the XML file for an `<oa:attachment>` XML tag that contains view object name and primary key details for the business entity associated with the view.  
For example, the following `<oa:attachment>` section provides these key values, highlighted in bold characters.

```
<oa:attachmentImage id="EMPInProgressJournal" prompt="Journal"
viewName="EmpMyAppraisalsInProgressVO" autoCommitEnabled="true" enableDocumentCatalog="false">
  <oa:entityMappings>
    <oa:entityMap id="APPRAISEEEntityMap" entityId="APPRAISEE_JOURNAL" showAll="false">
      <oa:primaryKeys>
        <oa:primaryKey id="primaryKey1" viewAttr="AppraisalId"/>
        <oa:primaryKey id="primaryKey2" viewAttr="AppraiseePersonId"/>
      </oa:primaryKeys>
      <oa:categoryMappings>
        <oa:categoryMap id="categoryMap1" categoryName="MISC"/>
      </oa:categoryMappings>
    </oa:entityMap>
  </oa:entityMappings>
</oa:attachmentImage>
```

4. Note the identifying values. You use them in [Enabling Managed Attachments for Oracle E-Business Suite OAF Applications](#) to map OAF page details with Managed Attachments.

In the example, the following values were located:

- Entity = **APPRAISEE\_JOURNAL**
- Primary Key = **APPRAISAL\_ID** and **APPRAISEE\_PERSON\_ID**
- View Object = **EmpMyAppraisalsInProgressVO**

- View Attribute = **AppraisalId** and **AppraiseePersonId**

### 6.2.4.2.2 With Attachment Information Present, But Not Primary Keys

In this case, the OAF page's XML file contains attachment object information (view object and entity), but not the corresponding primary key. Follow these steps to determine the view object and entity name from the XML file, then query the FND\_DOCUMENT\_ENTITIES table to determine the primary key.

1. Navigate to the OAF page and click the **About this page** link at the bottom.  
For example, navigate to iProcurement, then Requisitions, then the Requisition Details OAF page, and click the **About this page** link.

2. Note the full path of the page's XML file. For example:

```
/oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG
```

3. From the APPS schema, run the following query against the FND\_DOCUMENT\_ENTITIES table, replacing *EntityName* with the entity identified in the XML file.

```
SELECT * FROM FND_DOCUMENT_ENTITIES WHERE ENTITY_NAME=EntityName
```

For example, the following xml file's <oa:attachment> section provides these key values, highlighted in bold characters:

```
<oa:attachmentLink id="Attachment" viewName="ReqHeaderVO" prompt="Attachment">
  <oa:entityMappings>
    <oa:entityMap entityId="REQ_HEADERS" id="entityMap1" insertAllowed="false"
updateAllowed="false" deleteAllowed="false">
      <oa:categoryMappings>
        <oa:categoryMap categoryName="REQ Internal" id="ReqInternal"/>
        <oa:categoryMap categoryName="Approver" id="ToApprover"/>
        <oa:categoryMap categoryName="Buyer" id="ToBuyer"/>
        <oa:categoryMap categoryName="Receiver" id="ToReceiver"/>
        <oa:categoryMap categoryName="Vendor" id="ToSupplier"/>
      </oa:categoryMappings>
    </oa:entityMap>
  </oa:entityMappings>
</oa:attachmentLink>
```

The following information is known:

- Entity = **REQ\_HEADERS**
  - View Object = **ReqHeaderVO**
4. Based on the primary key column, determine its corresponding view attribute.
    - a. Run the FND\_DOCUMENT\_ENTITIES query for the REQ\_HEADERS entity.  

```
SELECT * FROM FND_DOCUMENT_ENTITIES WHERE ENTITY_NAME='REQ_HEADERS'
```

The query returns the primary key column name: REQ\_HEADER\_ID.
    - b. Click the **About this page** link, select **View Object** and find the corresponding attribute name, which matches the column name: RequisitionHeaderId.
      - Primary Key = **REQUISITION\_HEADER\_ID**
      - View Attribute = **RequisitionHeaderId**



5. Note the identifying values. You use them in [Enabling Managed Attachments for Oracle E-Business Suite OAF Applications](#) to map OAF page details with Managed Attachments.

In the example, the following values were located:

- Entity = **REQ\_HEADERS**
- Primary Key = **REQUISITION\_HEADER\_ID**
- View Object = **ReqHeadersVO**
- View Attribute = **RequisitionHeaderId**

#### 6.2.4.2.3 With Neither Attachment Information Nor Primary Keys Present

In this case, the XML file associated with the page does not contain any attachment information. Follow these steps to determine the needed information.

1. Navigate to the OAF page and click the **About this page** link at the bottom.

For example, navigate to Purchasing, then Buyer Work Center, then Orders, then click the Order Number. Click the **About this page** link.

Note the full path of the page's XML file. For example:

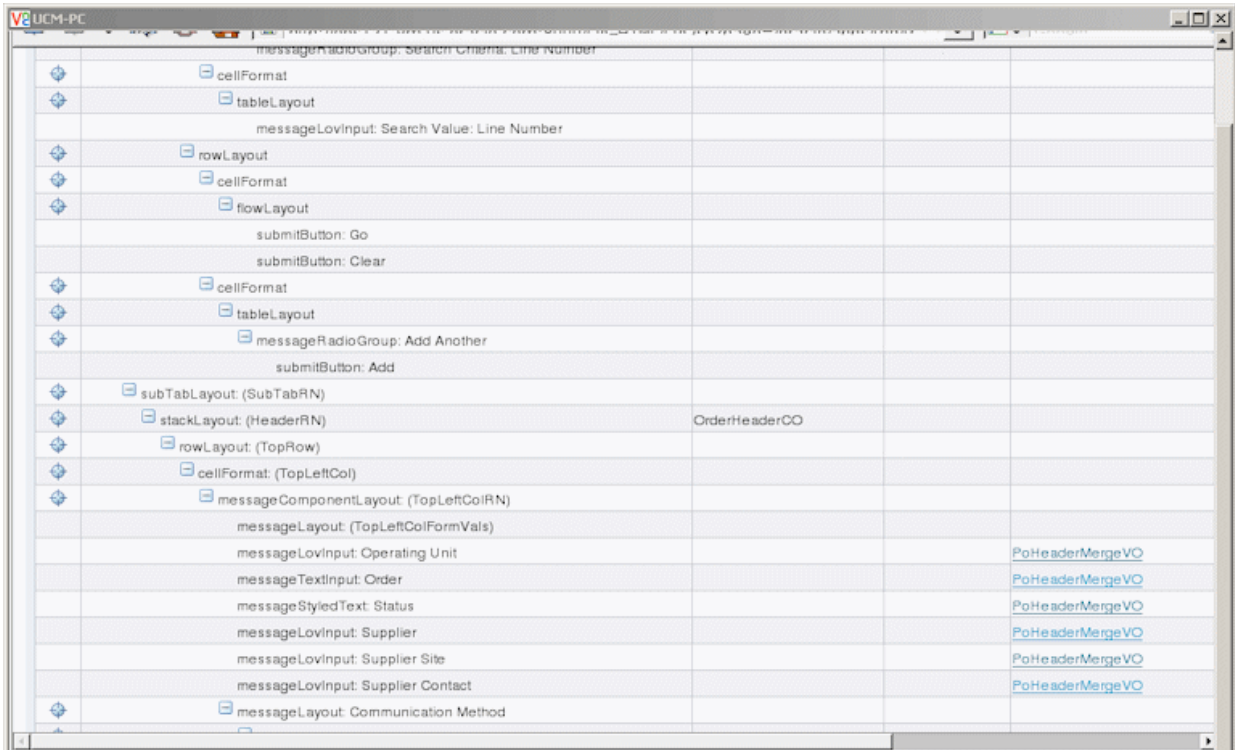
```
/oracle/apps/po/document/order/webui/OrderPG
```

The page's XML file does not contain any Oracle E-Business Suite attachment information.

2. Select **Page Definition**, then click the **Expand All** link.
3. Determine the view object.

In the **View Object** column, locate the view object listed the maximum number of times. The view object used in the top-level region is the driving view object for the page. In the example shown in [Figure 6-1](#), the view object is: **PoHeaderMergeVO**.

**Figure 6-1 Determining the View Object**



**4. Determine the entity (driving table).**

Click the view object link to display details for the view object. For example, the entity (driving table) for the PoHeaderMergerVO view object is **PO\_HEADERS\_MERGE\_V**.

**5. Determine the entity's primary keys.**

- a.** See the *Oracle E-Business Suite Electronic Technical Reference Manual* at the following location:

[http://etrm.oracle.com/pls/etrm/etrm\\_search.search](http://etrm.oracle.com/pls/etrm/etrm_search.search)

- b.** Enter a search that includes the entity name to obtain the table details. For example, for the PO\_HEADERS\_MERGE\_V entity, enter:

[http://etrm.oracle.com/pls/etrm/etrm\\_pnav.show\\_object?  
c\\_name=PO\\_HEADERS\\_MERGE\\_V&c\\_owner=APPS&c\\_type=VIEW](http://etrm.oracle.com/pls/etrm/etrm_pnav.show_object?c_name=PO_HEADERS_MERGE_V&c_owner=APPS&c_type=VIEW)

- c.** From the search results, display the view or table details. The example shown in [Figure 6-2](#) provides view details.



Figure 6-3 Displaying Table Details

ENABLED\_FLAG should always be 'N' and 'Y' respectively.

You enter document header information in the Header region of the Purchase Orders, RFGs, and Quotations windows.

**Storage Details**

Tablespace: APPS\_TS\_TX\_DATA  
PCT Free: 10  
PCT Used:

**Indexes**

Index	Type	Uniqueness	Tablespace	Column
PO_HEADERS_U1	NORMAL	UNIQUE	APPS_TS_TX_IDX	PO_HEADER_ID
PO_HEADERS_U2	NORMAL	UNIQUE	APPS_TS_TX_IDX	SEGMENT1 TYPE_LOOKUP_CODE ORG_ID
PO_HEADERS_F1	FUNCTION-BASED NORMAL	NONUNIQUE	APPS_TS_TX_IDX	DECODE('CONSIGNED_CONSUMPTION_FLAG','Y',DECODE('CLOSED_CODE','FINALLY CLOSED',NULL,'Y'),NULL)
PO_HEADERS_F2	FUNCTION-BASED NORMAL	NONUNIQUE	APPS_TS_TX_IDX	NVL('AUTHORIZATION_STATUS','INCOMPLETE')
PO_HEADERS_N1	NORMAL	NONUNIQUE	APPS_TS_TX_IDX	VENDOR_ID VENDOR_SITE_ID TYPE_LOOKUP_CODE
PO_HEADERS_N10	NORMAL	NONUNIQUE	APPS_TS_TX_IDX	STYLE_ID
PO_HEADERS_N11	NORMAL	NONUNIQUE	APPS_TS_TX_IDX	AUTHORIZATION_STATUS

- Based on the primary key, obtain its corresponding view attribute.

Return to the OAF page, clicking the **About this page** link and clicking the **Expand All** link. Select the view object that displays most often (PoHeaderMergeVO, for example). From the **Attributes** list that displays, determine the attribute name, which typically varies only slightly from the primary key name (for example, PO\_HEADER\_ID versus PoHeaderId).

- Note the identifying values. You use them in [Enabling Managed Attachments for Oracle E-Business Suite OAF Applications](#) to map OAF page details with Managed Attachments.

In the example, the following values were located:

- Entity = **PO\_HEADERS\_MERGE\_V**
- Primary Key = **PO\_HEADER\_ID**
- View Object = **PoHeaderMergeVO**
- View Attribute = **PoHeaderId**

### 6.2.4.3 Configuring Attachments to Display on Workflow Pages

You can configure attachments to display on workflow pages. After the configuration, you can view attachments on workflow pages.

Perform the following steps to configure the attachments:

- Open the Workflow Notification OAF page and add the Managed Attachment button using personalization. For more information, see [Personalizing OAF Pages to Add Managed Attachments](#).

Note the full path of the XML file for the Workflow Notification page.

```
/oracle/apps/fnd/wf/worklist/webui/NotifDetailsPG
```

- As an AXF user, execute the OAF\_AXF\_CREATE\_WORKFLOW\_TABLES.sql script from the following Oracle E-Business Suite location:

```
MW_HOME/wccontentaxf/adapters/ebs/oaf/
```

To execute the script, enter:

```
@OAF_AXF_CREATE_WORKFLOW_TABLES.sql
```

- Verify that OAF\_AXF\_WORKFLOWS table is created. This table stores workflow related information and creates entries for some workflow types. For other workflow types, you can insert additional rows into this table as shown in the following table:

**Table 6-3 Column Description for OAF\_AXF\_WORKFLOWS Table**

Column Name	Description
AXF_WORKFLOW_TYPES	A comma separated list of workflow types that use the same business entity. Example: APEXP, APWRECPT, APWHOLDS
AXF_QUERY	The SQL select query, which is used to select the primary key value for the entity. The <b>notification id</b> is passed as a parameter to the WHERE clause of the query. The PK value obtained uniquely identifies the attachment in UCM. Example: SELECT ITEM_KEY FROM WF_NOTIFICATIONS WHERE NOTIFICATION_ID = ?
AXF_BUSINESS_OBJECT_TYPE	The business object type for the entity.
AXF_BUSINESS_OBJECT_KEY	The primary key name for the entity.

- In the OAF\_AXF\_CMD\_PARAMS table, update the database entries for the Workflow Notification page by replacing the name of the application with the application name for your instance.

 **Note:**

Ensure that other values in the database table are retained as DUMMY.

Once you are done with the updates, the OAF\_AXF\_CMD\_PARAMS table must display the values as shown in the following table:

**Table 6-4 Example OAF\_AXF\_CMD\_PARAMS Table**

AXF_PARAM_NAME	AXF_DATASOURCE	AXF_VIEW_OBJ_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
application	CONSTANT	(null)	(null)	EBS_instanceA
businessObjectType	CONSTANT	(null)	(null)	DUMMY
businessObjectKey1	CONSTANT	(null)	(null)	DUMMY

Table 6-4 (Cont.) Example OAF\_AXF\_CMD\_PARAMS Table

AXF_PARAM_NAME	AXF_DATASOURCE	AXF_VIEW_OBJ_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
businessObjectValue1	DATA	DUMMY	DUMMY	(null)

- Restart the Oracle E-Business Suite instance.

## 6.2.5 Enabling Managed Attachments for Oracle PeopleSoft

The main configuration steps include:

- Configuring each Oracle PeopleSoft entity's primary key values in the Oracle PeopleSoft AXF database tables, described in [Oracle PeopleSoft Tables For the Managed Attachments Solution](#). The AXF\_PSFT\_ATTACHMENTS\_CONFIG.sql script is provided as a starting point. It contains sample values for PeopleSoft entities such as work order, sales contract, and purchase requisition. You can modify the sample key values to reflect your Oracle PeopleSoft pages, using the primary keys you noted in [Placing AXF Components on Oracle PeopleSoft Pages](#).
- Specifying an Oracle PeopleSoft role to grant users permission.

Follow the steps in this section to enable Managed Attachments for Oracle PeopleSoft.

- Locate the AXF\_PSFT\_ATTACHMENTS\_CONFIG.sql sample script in this folder:

```
MW_HOME/wccontent/axf/adapters/psft/
```

- Log in to the Oracle PeopleSoft database as a user with administrative privileges.

If you are using UCM web service implementation and the value of the webkey is anything other than `cs`, add the following in AXF\_PSFT\_ATTACHMENTS\_CONFIG.sql:

```
Insert into PS_AXF_CMD_PARAMS
(AXF_CMD_PARAMS_ID,AXF_CMDS_ID,AXF_PARAM_NAME,AXF_DATASOURCE,AXF_RECORD_NAME,AXF_
FIELD_NAME,AXF_CONSTANT_VALUE) values (111,101,'CS_WEBKEY','CONSTANT',' ','
','<WEBKEY_VALUE>');
```

- Modify the sample script to include the values you identified for your Oracle PeopleSoft entities in [Placing AXF Components on Oracle PeopleSoft Pages](#), then run the script.

To execute the script, enter:

```
@AXF_PSFT_ATTACHMENTS_CONFIG.sql
```

- Specify an Oracle PeopleSoft role in the [PS\\_AXF\\_COMMANDS Table](#) to grant users permission to use a specified user interface item. For example, you might change the `Employee` value to `PeopleSoft user` or an appropriate Oracle PeopleSoft user role.

## 6.3 Configuring the Content Server Components

Follow the sections listed below to configure Content Server components for the Managed Attachments solution for Oracle E-Business Suite or Oracle PeopleSoft, and test the completed solution.

 **Note:**

To configure the Managed Attachments solution for another business application, see the instructions provided in [Configuring the Enterprise Application Adapter Framework](#).

- [Enabling Content Server Components](#)
- [Verifying Required Content Server Components and Configuration](#)
- [Testing the Managed Attachments Solution](#)

## 6.3.1 Enabling Content Server Components

[Table 6-5](#) lists Content Server components for the Managed Attachments solution.

**Table 6-5 Content Server Components for Managed Attachments**

Content Server Component	Description
AppAdapterCore.zip	Required for all Managed Attachments configurations
AppAdapterEBS.zip	Required for Oracle E-Business Suite Forms and OAF integrations
AppAdapterPSFT.zip	Required for Oracle PeopleSoft integrations
AppAdapterUniversal.zip	Required for other business application integrations, as described in <a href="#">Configuring the Enterprise Application Adapter Framework</a> .

Follow these steps to enable the Content Server components using Component Manager.

1. If upgrading from an earlier installation of the adapter, back up previous customizations, as described in [Backing Up Customizations Before Upgrading](#).
2. Log in to Content Server as an administrator.
3. Choose **Admin Server** from the Administration menu.  
The Component Manager page displays.
4. Choose **Integration**.  
The Content Server components described in [Table 6-5](#) are listed as Integration options.
5. Select the **AppAdapterCore** component to enable it.
6. Select any one of the appropriate business application component:
  - **AppAdapterEBS.zip** for Oracle E-Business Suite
  - **AppAdapterPSFT.zip** for Oracle PeopleSoft
  - **AppAdapterUniversal.zip** for other business applications, as described in [Configuring the Enterprise Application Adapter Framework](#).
7. Click **Update**.

8. Restart Content Server.
9. Check the Content Server and database logs to ensure that no application adapter install errors occurred.

### 6.3.1.1 Backing Up Customizations Before Upgrading

If upgrading from a previous version of the adapter (Managed Attachments solution), perform these additional upgrade steps if needed before installing Content Server components, as indicated in step [Enabling Content Server Components](#) in [Enabling Content Server Components](#).

1. Back up Content Server rule and profile customizations.

Installing the new adapter overwrites existing rules and profiles. If your previous installation includes customizations to Content Server rules and profiles, back up these rules and profiles using a CMU bundle before installing Content Server components. After installation, create new rules and profiles, and manually apply any customizations.

2. Back up the config.cfg file.

This adapter release stores environment variables using a preferences.hda file instead of config.cfg. After installation, manually copy configuration preferences from config.cfg to preferences.hda.

3. Back up any other template or resource include customizations and modifications.

Some resource includes and templates have changed in this release. Manually set these customizations after installation.

### 6.3.2 Verifying Required Content Server Components and Configuration

Follow these steps to verify that required Content Server components are enabled.

1. Log in to Content Server as an administrator.
2. Click the **Configuration for [Instance]** link in the content server Administration tray.
3. In the Features And Components section, click **Enabled Component Details**.
4. From the details shown, verify that the following components are enabled. If a component is not listed, install and enable it according to its installation documentation.

The following components must be at or above the version level included with the installed Content Server:

- YahooUserInterfaceLibrary
  - CheckoutAndOpenInNative
  - CoreWebdav
  - NativeOsUtils
  - ContentFolios
5. In the User Admin applet, ensure that the roles below have the correct access level to the corresponding security groups.



In Content Server, choose the Administration option from the main menu, choose **Admin Applets**, then **User Admin**. Select **Security**, then **Permissions by Role**.

- AFAdmin: AFDocuments (RWDA) and no permissions on any other groups
- AFDelete: AFDocuments (RWD) and no permissions on any other groups
- AFWrite: AFDocuments (RW) and no permissions on any other groups
- AFRead: AFDocuments (R) and no permissions on any other groups

### 6.3.3 Testing the Managed Attachments Solution

Before testing the Managed Attachments solution, ensure that you follow the instructions mentioned in [Configuring Authentication and Security](#). Test the configuration for your selected business application by following the steps listed in [Testing the Managed Attachments Solution](#).

## 6.4 Configuring the Enterprise Application Adapter Framework

In addition to Oracle E-Business Suite and Oracle PeopleSoft components, the adapter provides a generic component, called **Enterprise Application Adapter Framework**, for customizing the Managed Attachments solution for use with another business application. This component contains similar settings to the Oracle E-Business Suite and Oracle PeopleSoft component zip files.

In [Configuring Elements for AXF Web Service Implementation of Managed Attachments](#), you ran the AXF\_ATTACHMENTS\_CONFIG.sql script, which configured AXF tables for the UCM\_Managed\_Attachments solution. Follow the steps listed in these sections to configure the business application/Managed Attachments integration.

- [Deploying the AppAdapterUniversal Component on Content Server](#)
- [Configuring the SOAP Service Call and Managed Attachments URL Display](#)

### 6.4.1 Deploying the AppAdapterUniversal Component on Content Server

Before deploying the AppAdapterUniversal.zip component, you can optionally rename the component files and customize the framework layout, images, and profile, as described later in this section.

From Component Manager, install the component, enable it, and restart the Content Server. For more information, see [Enabling Content Server Components](#) section in this book or the Creating Components Using the Component Wizard in *Administering Oracle WebCenter Content*.

#### 6.4.1.1 Optionally Renaming Component Files

If you opt to rename files, follow these steps to unzip the component, rename certain files for your business application, and zip the files into a newly named file. You will need an uppercase business application name (for example, BIZAPP), a lowercase name (for example, bizapp), and a long name (for example, ExampleBusinessApp).

1. Back up the AppAdapterUniversal.zip file.

The zip file is located at:

`ECM_HOME/ucm/Distribution/AppAdapter`

2. Unzip the AppAdapterUniversal.zip file.
3. Replace the word `Universal` in the file name with the business application name, matching case (for example, replace `Universal` with `BIZAPP`).

Note that this string is used in the `ResultTemplate` name used in the Managed Attachments URL (for example, `ResultTemplate=BIZAPP_LIST`). For details about the result template, see [Changing the Result Template](#).

4. Locate the `universal_AppAdapter_strings.htm` file and replace all occurrences of the string `Application` with your business application long name (for example, replace `Application` with `ExampleBusinessApp`).
5. Search each file for instances of the string `Universal` and replace them with the name you specified in step 3, matching case (for example, `BIZAPP`).
6. Search each file for instances of the string `universal` and replace them with your business application's lowercase name (for example, `bizapp`).
7. Zip the files into the newly named file (for example, `AppAdapterBuzzApp.zip`).

### 6.4.1.2 Optionally Customizing the Framework Layout, Images, and Profile

- To change the look-and-feel of the result template file, customize the result template file (originally named `Universal_LIST`, `universal_adapter_list_results_template.htm`). See [Changing the Result Template](#).
- To customize images, replace the images in the `resources\publish\images` folder.
- To customize the Content Server profile used, change the `UniversalProfile` file. See [Customizing the Content Server Profile Used](#).

## 6.4.2 Configuring the SOAP Service Call and Managed Attachments URL Display

Follow the steps below to configure the business application to call AXF and receive the Managed Attachments URL.

1. Configure the business application to provide an application entity context link, button, or menu item to call AXF via the SOAP service and to pass the Managed Attachments attributes listed in [Table 6-6](#).
  - Example provides a sample SOAP XML file for calling AXF and [Table 6-7](#) describes fields in the `AXFRequest`.
  - Example provides a sample `AXFResponse` and [Table 6-8](#) describes fields in the `AXFResponse`.

The SOAP response contains the Managed Attachments page's URL. If an error occurs during the grant call, an AXF Error Page URL is returned.

For UCM web service implementation, the WSDL URL is:

`http://CS Hostname:CS Port/idcws/AfGrantAccess?wsdl`

For IPM web service implementation, the WSDL URL is:

`http://Imaging Hostname:Imaging Port/axf-ws/AxfSolutionMediatorService?wsdl`

**Table 6-6 Attributes to Pass Via SOAP Call to AXF**

Managed Attachments Attribute Key	Description	Example Value
application (required)	Specifies the business application instance name, providing a unique identifier to differentiate between instances.	BIZAPP_instanceA
businessObjectType (required)	Specifies the business application's object type, typically the name of the record where the business object data is stored.	REQ_HEADERS
businessObjectKey1...businessObjectKey5 (one pair required)	Specifies the ObjectKey portion of key-value pairs that uniquely map business application record fields to Content Server. One key-value pair is required, and up to 5 pairs are supported.	REQUISITION_HEADER_ID
businessObjectValue1...businessObjectValue5 (one pair required)	Specifies the ObjectValue portion of key-value pairs that uniquely map business application record fields to Content Server. One key-value pair is required, and up to 5 pairs are supported.	1234
labelValue1...labelValue5 (optional)	Specifies labels to be displayed in the Managed Attachments page's title. Use these labelValue fields to pass text constants and record data that will allow the end user to see, via the user interface, the specific application entity record to which the Managed Attachments apply. Labels are optional, and up to 5 label values are supported.	Business Unit US001 Requisition ID 1234
extraParamName (optional; for example, extraxReqNum)	Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. (For details, see <a href="#">Passing Values Via Enterprise Application Adapter Framework</a> .)	1234

Following is an example of Sample SOAP XML File for Calling AXF:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ser="http://service.axf.imaging.oracle/">
  <soapenv:Header>
    <Security xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-
wss-wssecurity-secext-1.0.xsd">
      <UsernameToken>
        <Username>weblogic</Username>
        <Password>welcome1</Password>
      </UsernameToken>
    </Security>
  </soapenv:Header>
  <soapenv:Body>
    <ser:execute>
      <request>
        <solutionNamespace>UCM_Managed_Attachments</
solutionNamespace>
        <commandNamespace>UCM_Managed_Attachments</
```

```

commandNamespace>
    <conversationId></conversationId>
    <systemName></systemName> <!-- future use -->
    <role></role> <!-- future use -->
    <userContext></userContext> <!-- future user -->
    <username>jcooper</username>
    <requestParameters>
        <entry>
            <key>application</key>
            <value>BIZAPP_instanceA</value>
        </entry>
        <entry>
            <key>businessObjectType</key>
            <value>REQ_HEADERS</value>
        </entry>
        <entry>
            <key>businessObjectKey1</key>
            <value>BUSINESS_UNIT</value>
        </entry>
        <entry>
            <key>businessObjectValue1</key>
            <value>US001</value>
        </entry>
        <entry>
            <key>businessObjectKey2</key>
            <value>REQUISITION_HEADER_ID</value>
        </entry>
        <entry>
            <key>businessObjectValue2</key>
            <value>1234</value>
        </entry>
        <entry>
            <key>extraxReqNum</key>
            <value>1234</value>
        </entry>
    </requestParameters>
</request>
</ser:execute>
</soapenv:Body>
</soapenv:Envelope>

```

**Table 6-7 AXFRequest Attributes**

AXFRequest Attributes	Description	Example
solutionNamespace	SolutionNamespace in which to execute the command.	UCM_Managed_Attachments
commandNamespace	Command to execute within the specified SolutionNamespace.	UCM_Managed_Attachments
conversationID	Currently opened conversation created by AXF. This attribute is blank if it is the first call and is not used by the Managed Attachments solution.	
systemName	Reserved for future use.	
role	Reserved for future use.	
userContext	Reserved for future use.	

**Table 6-7 (Cont.) AXFRequest Attributes**

AXFRequest Attributes	Description	Example
userName	Business application user name. (Note that for the Managed Attachments solution, the USERNAME_PASS_THROUGH parameter must be set to TRUE if used with AXF for BPEL. For more information about USERNAME_PASS_THROUGH, see <a href="#">Restoring Business Application User Pass Through for Managed Attachments.</a> )	jcooper
requestParameters	A collection of key/value pairs providing the command parameters.	<pre>&lt;entry&gt;   &lt;key&gt;application&lt;/key&gt;   &lt;value&gt;BIZAPP_instanceA&lt;/value&gt; &lt;/entry&gt;</pre>

Following is an example of AXFResponse:

```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
  <S:Body>
    <ns2:executeResponse xmlns:ns2="http://service.axf.imaging.oracle/">
      <response>
        <conversationId>b80ce79b-6b46-4302-ab59-ddb91e30692b</conversationId>
        <responseCommands>
          <command>OPEN_BROWSER</command>
          <value>http://imaging.example.com:16200/cs/idcplg/-
UniversalProfile?
IdcService=GET_SEARCH_RESULTS_FORCELOGIN&ResultTemplate=Universal_LIST&afGuid=000
00132-b540-810e-63f4-00e94577f990</value>
        </responseCommands>
      </response>
    </ns2:executeResponse>
  </S:Body>
</S:Envelope>
```

**Table 6-8 AXFResponse Attributes**

AXFResponse Attributes	Description
conversationId	Current conversation created by AXF to help maintain state/context for the transaction.
responseCommands	A collection of key/value pairs providing a command for the business application to execute with a single parameter. In most cases, it is the OPEN_BROWSER command, which provides a URL that the business application must open.

2. Display the URL returned by the AXF SOAP call in a new browser window or iFrame.
3. Optionally, configure SOAP over SSL security for the call, as described in [Securing Communications Through SSL \(Other Business Applications\)](#).

## 6.4.2.1 Securing Communications Through SSL (Other Business Applications)

Follow these main steps to implement web server SSL encryption for the Enterprise Application Adapter Framework:

1. Install web server-based digital certificates.  
In your business application documentation, refer to information about configuring certificates on the business application's web server environment.
2. Enable SSL on Oracle WebLogic Server on the Oracle WebCenter Content side.  
For information, see [Configuring SSL for the Middle Tier in \*Administering Oracle Fusion Middleware\*](#).
3. Exchange server certificates between the web servers.  
For information, see [Key and Certificate Storage in Oracle Fusion Middleware in \*Administering Oracle Fusion Middleware\*](#).

## 6.5 Configuring Managed Attachments Settings

After configuring the Content Server components as described in [Configuring the Content Server Components](#), use the Managed Attachments administration interface to configure its settings. This section provides general configuration information, and [Customizing the Managed Attachments Solution](#) provides detailed customization instruction and examples.

### Settings Order of Precedence

The order of precedence of the configuration settings is as follows.

- role specific (highest)
- business context specific
- application entity specific
- application instance specific
- global (lowest)

Keep this order of precedence in mind when configuring attachment settings. For example, configuring a role that enables scanning results in scanning disabled for all other roles.

#### Note:

This section describes how to edit Managed Attachments settings in the administration interface. As an alternative, you can customize settings by directly editing the **preferences.hda** file configuration file where the settings are stored, as described in [Alternatively Editing Settings in the Preferences.hda File](#).

1. On Content Server, choose **Managed Attachments** from the **Administration** menu.

The Configure Managed Attachments page displays, as shown in Figure 6-4.

Figure 6-4 Configure Managed Attachments Page

**Global Configuration**

**Check In**

**AppAdapterCheckInPrivate**  
If set to true the checkbox for sharing the new document checkin in the checkin page will be unselected by default.  True

**AppAdapterExtraCheckInMetadata**  
Comma separated list of parameters that can be passed on the AXP grant call that will be prepopulated in the checkin page.

**AppAdapterExtraScanMetadata**  
Comma separated list of parameters that can be passed on the AXP grant call that will be prepopulated in the scan page.

**ODDCURLPath**  
Enables document attachment scanning and importing through Oracle Distributed Document Capture. This entry specifies the web address to Oracle Distributed Document Capture.

**ODDCScanAction**  
Use to configure document attachment scanning and importing through Oracle Distributed Document Capture. In this entry, specify the scan action to perform, where: 1 (Scan), 2 (Import)

**Buttons**

**AppAdapterDetachBtnVisible**  
Specifies if the Detach button displays in the Managed Attachments screen.  True

**AppAdapterRefreshBtnVisible**  
Specifies if the Refresh button displays in the Managed Attachments screen.  True

**AppAdapterCheckInNewBtnVisible**  
Specifies if the New button displays in the Managed Attachments screen.  True

**AppAdapterRepoAttachBtnVisible**  
Specifies if the From Repository button displays in the Managed Attachments screen.  True

**AppAdapterConfigureBtnVisible**  
Specifies if the Configure button displays in the Managed Attachments screen.  True

**AppAdapterSearchWithinBtnVisible**  
Makes the "Search Within" button that enables the user to search within the attachments list.  True

**AppAdapterScanBtnVisible**  
Specifies if the Scan button displays in the Managed Attachments screen.  False

**AppAdapterHelpIconVisible**  
Specifies if the Help icon displays in the Managed Attachments screen.  True

**AppAdapterAutoVueIconVisible**  
Specifies if the AutoVue icon displays in the Actions column of the Managed Attachments screen.  False

**General**

**AppAdapterGrantPrivilege**  
Specifies the access level to grant to all users if the AF\_GRANT\_ACCESS service's dPrivilege parameter is not specified. Valid values include: R (read), W (write), D (delete) and A (admin).

**AppAdapterGrantHours**  
Specifies the time in hours for which the user session remains available. The solution uses this value only if the AF\_GRANT\_ACCESS service's numhours parameter is not specified. Valid values are numbers with optional decimal.

**AppAdapterMaxGrantHours**  
Specifies the maximum time in hours to grant the user access to the Managed Attachments screen. Valid values are numbers with decimal.

**AppAdapterKeyDelimiter**  
This is the internal delimiter, used to concatenate primary keys and values passed as parameters. The default delimiter is a | (pipe) character.

**AutoVueURLPath**  
Enables AutoVue viewing of attached documents through Oracle AutoVue Web Version. This entry specifies the AutoVue servlet to run. Format: AutoVueURLPath=http://ucm\_host\_name:port/web\_nsf/js/autovue/ctlApplet.jsp  True

**AppAdapterFrameLessWindowRequired**  
Specify if standard browser menu options are hidden in browser windows that open from the attachments display (true) or displayed (false).  False

**AppAdapterViewUnreleased**  
If set to true will show the unreleased documents in the MA list with no links to the web files.  False

**ResultCount**  
Sets the number of attachments visible in a single page.

**SearchEngineName**  
Name of the search engine used for the MA page.

**Attachment Relationship Attributes**

Application Name	Object Type	Attribute Name	Attribute Type	Action
[Add]				

**Entity Specific Configuration**

Application Name	Object Type	Configuration Name	Value	Action
[Add]				

**Role Specific Configuration**

Configuration Name	Value	Role	Action
[Add]			

**Business Context Specific Configuration**

Configuration Name	Value	Business Context	Action
[Add]			

2. Edit **Global Configuration** variables if needed, and click **Update**.

Use these settings to configure Content Server environment variables for the adapter, as described in [Working With Global Configuration Variables](#) and [Customizing the Managed Attachments Solution](#).

3. Add, edit, or delete **Attachment Relationship Attributes**.

Use this area to configure custom relationships between attached documents and business entities, as described in [Configuring Attachment Relationship Attributes](#). For example, enable users to print document attachments for certain business entities but not for others.

4. Add, edit, or delete **Entity Specific Configurations**.

Use this area to override global settings for a specified business entity or application, as described in [Customizing Settings at Business Entity or Application Levels](#). For example, override a global setting that displays the From Repository button and hide the button for a specified business entity.

5. Add, edit, or delete **Role Specific Configurations** or **Business Context Specific Configurations**.

Use these areas to configure which Managed Attachments features and buttons are displayed and available, based on either:

- the user's assigned role, as described in [Customizing Settings Based on Users' Assigned Roles](#). For example, configure all users granted a read role to have read-only Managed Attachments access.
- the user's business application context, as described in [Customizing Settings Based on Users' Business Context](#). For example, display and enable the Scan button only when the businessObjectContext passed from the business application=ScanContext.

## 6.5.1 Working With Global Configuration Variables

Use the **Global Configuration** section of the Configure Managed Attachments page to change global environment variables from their default values.

Global configuration variables are grouped on the page as follows:

- Check-In variables ([Table 6-9](#))
- Scanning variables ([Table 6-10](#))
- Button variables ([Table 6-11](#))
- General variables ([Table 6-12](#))

**Table 6-9 Check-in Variables**

Field	Default Value	Description
AppAdapterCheckinPrivate	true	If set to true, the <b>Share Document</b> field on the Content Check-In and Scan Document pages is deselected by default. This setting configures documents for private check-in, although users can select the field for shared check-in. See <a href="#">Configuring Document Security</a> .
AppAdapterExtraCheckinMetadata	null	Specify a comma-separated list of parameters to optionally pass on the AXF grant call to be prepopulated on the Checkin page (leaving no space after a comma before the next value). For more information, see <a href="#">Passing Extra Metadata Values From a Business Application to Content Server</a> .



**Table 6-10 Scanning Variables**

Field	Default Value	Description
AppAdapterExtraScanMetadata	null	Specify a comma-separated list of parameters to optionally pass on the AXF grant call to be prepopulated on the Scan Document page (leaving no space after a comma before the next value). For more information, see <a href="#">Passing Extra Metadata Values From a Business Application to Content Server</a> .

Table 6-10 (Cont.) Scanning Variables

Field	Default Value	Description
ODDCURLPath		<p>Enables document attachment scanning and importing through Oracle WebCenter Enterprise Capture or Oracle Distributed Document Capture. For configuration instructions, see <a href="#">Configuring Oracle WebCenter Enterprise Capture</a> and <a href="#">Configuring Oracle Distributed Document Capture</a>.</p> <p><b>For Oracle Webcenter Enterprise Capture (12c) integration</b></p> <p>This entry specifies the web address to Oracle WebCenter Enterprise Capture:</p> <p><b>Format:</b></p> <pre>ODDCURLPath oraclecapture:// CaptureWorkspace=CaptureWorkspace&amp;CaptureDriver=CAPTURE_IMPORT_DRIVER&amp;CaptureSource=Import Source</pre> <p><b>Example:</b></p> <pre>ODDCURLPath oraclecapture://CaptureWorkspace=EBS/PSFT&amp;CaptureDriver=CAPTURE_IMPORT_DRIVER&amp;CaptureSource=Import Source</pre> <p><b>For Oracle WebCenter Enterprise Capture (11g) integration</b></p> <p>This entry specifies the web address to Oracle WebCenter Enterprise Capture:</p> <p><b>Format:</b></p> <pre>ODDCURLPath http://capture_host:port/dc-client</pre> <p><b>Example:</b></p> <pre>ODDCURLPath http://capture1:16400/dc-client</pre> <p><b>For Oracle Distributed Document Capture (10g) integration</b></p> <p>This entry specifies the web address to Oracle Distributed Document Capture.</p> <p><b>Format:</b></p> <pre>ODDCURLPath http://ODDC_host/ODDC_webcapture_address</pre> <p><b>Example:</b></p> <pre>ODDCURLPath http://xyz/webcapture.asp</pre>

**Table 6-10 (Cont.) Scanning Variables**

Field	Default Value	Description
ODDCScanAction	1	Use to configure document attachment scanning and importing through Oracle Distributed Document Capture (10g), as described in <a href="#">Configuring Oracle Distributed Document Capture</a> . In this entry, specify the scan action to perform, where: <ul style="list-style-type: none"> <li>• 1 = Scan</li> <li>• 2 = Import</li> </ul>

**Table 6-11 Button Variables**

Field	Default Value	Description
AppAdapterDetachBtnVisible	true	Specifies if the <b>Detach</b> button displays on the Managed Attachments page.
AppAdapterRefreshBtnVisible	true	Specifies if the <b>Refresh</b> button displays on the Managed Attachments page.
AppAdapterCheckinNewBtnVisible	true	Specifies if the <b>New</b> button displays on the Managed Attachments page.
AppAdapterRepoAttachBtnVisible	true	Specifies if the <b>From Repository</b> button displays on the Managed Attachments page.
AppAdapterConfigureBtnVisible	true	Specifies if the <b>Configure</b> button displays on the Managed Attachments page.
AppAdapterSearchWithinBtnVisible	true	Specifies if the <b>Search Within</b> button that enables users to search within the attachments list displays on the Managed Attachments page.
AppAdapterScanBtnVisible	false	Specifies if the <b>Scan</b> button displays on the Managed Attachments page.
AppAdapterHelpIconVisible	true	Specifies if the <b>Help</b> icon displays on the Managed Attachments page.
AppAdapterAutoVueIconVisible	false	Specifies if the <b>AutoVue</b> icon displays in the Actions column on the Managed Attachments page. For more information, see <a href="#">Configuring Oracle AutoVue Document Viewing</a> .

**Table 6-12 General Variables**

Field	Default Value	Description
AppAdapterGrantPrivilege	W	Specifies the access level to grant to all users if the AF_GRANT_ACCESS service's <i>dPrivilege</i> parameter is not specified. Valid values include: R (read), W (write), D (delete) and A (admin). For more information, see <a href="#">AFGrants Table</a> .

Table 6-12 (Cont.) General Variables

Field	Default Value	Description
AppAdapterGrantHours	0.5	Specifies the time in hours for which the user session remains available. The solution uses this value only if the AF_GRANT_ACCESS service's <i>numHours</i> parameter is not specified. Valid values are numbers with optional decimal.
AppAdapterMaxGrantHours	24	Specifies the maximum time in hours to grant the user access to the Managed Attachments page. Valid values are numbers with decimal.  For example, suppose AppAdapterGrantHours is set to 1 hour and AppAdapterMaxGrantHours is set to 24 hours. If the user accesses the Managed Attachments page from the business application at 12:00 (noon), dExpirationDate in the <a href="#">AFGrants Table</a> is set to 13:00 and dMaxExpiration is set to 12:00 (noon) the next day. If at 12:30, the user performs an action (such as checking in a document), dExpirationDate changes to 13:30, and so on. The result is that the user can have access to the Managed Attachments page up to 24 hours if at any given time the gap between two requests is less than one hour. Regardless, when 24 hours is reached, access is denied. This setting prevents a user from keeping access open for very long periods of time without user action, and prevents access from expiring if a user is actively using the system.
AppAdapterKeyDelimiter		Specifies the internal delimiter used to concatenate primary keys and values passed as parameters. The default delimiter is a   (pipe) character.
AutoVueURLPath		Enables AutoVue viewing of attached documents through Oracle AutoVue Web Version. For configuration instructions, see <a href="#">Configuring Oracle AutoVue Document Viewing</a> . This entry specifies the AutoVue servlet to run.  <b>Format:</b> AutoVueURLPath <code>http://ucm_host_name:port/web_root/idcplg?IdcService=VIEW_IN_AUTOVUE</code>  <b>Example:</b> AutoVueURLPath <code>http://ucm1.example.com/cs/idcplg?IdcService=VIEW_IN_AUTOVUE</code>
AppAdapterFrameLessWindowRequired	true	Specifies if standard browser menu options are hidden in browser windows that open from the attachments display (true) or displayed (false).
AppAdapterViewUnreleased	false	If set to true, displays documents in the attachments list before they are released, without links to the web files.

**Table 6-12 (Cont.) General Variables**

Field	Default Value	Description
ResultCount	20	Specifies the number of attachments to display per page on the Managed Attachments page. If the number of results exceeds ResultCount, previous and next page controls display on the page.
SearchEngineName	DATABASE.METAD ATA.AFLIST	Specifies the search engine to use. You can choose: <ul style="list-style-type: none"> <li>• DATABASE.METADATA.AFLIST.STANDARD : Displays released documents only.</li> <li>• DATABASE.METADATA.AFLIST: Displays released and unreleased documents.</li> </ul> <b>Note:</b> If Database Full Text Search or Oracle Full Text Search is configured in Content Server, then the specified search engine is used only when users click the <b>From Repository</b> button.

## 6.5.2 Alternatively Editing Settings in the Preferences.hda File

The Managed Attachments Administration settings are stored in a configuration file called preferences.hda.

You can edit settings using the Managed Attachments Administration interface, as described in [Configuring Managed Attachments Settings](#). Alternatively, you can follow the steps in this section to directly modify the preferences.hda file.

### Note:

You must restart the Content Server after modifying the preferences.hda file.

You can add or delete application and business entity configuration entries as needed, but do NOT delete global configuration entries from the preferences.hda file.

1. Open the preferences.hda file in the following directory:

*UCM\_Instance/data/appadapter*

This file provides Managed Attachments configuration options in the ResultSet sections described in the following table:

**Table 6-13 ResultSet Sections in Preferences.hda File**

Section	Description
AFEnvironmentConfiguration	Use to configure Content Server environment variables for the adapter. For more information, see <a href="#">Table 6-9</a> and <a href="#">Customizing the Managed Attachments Solution</a> .

**Table 6-13 (Cont.) ResultSet Sections in Preferences.hda File**

Section	Description
AFRelationshipAttributes	Use to configure custom relationships between attached documents and business entities. For more information, see <a href="#">Configuring Attachment Relationship Attributes</a> .
AFRevisionSpecificEntities	Use to enable users to access the document version that was attached, even if the document was later updated. For more information, see <a href="#">Configuring Revision-Specific Mode</a> .

2. Scroll to the AFEnvironmentConfiguration ResultSet section, and edit the entries described in [Working With Global Configuration Variables](#) as needed. For more information about customizing the Managed Attachments solution using these variables, see [Customizing the Managed Attachments Solution](#).

## 6.6 Customizing the Managed Attachments Solution

Following are the methods to customize the Managed Attachments solution. It includes:

- [Customizing Settings Based on Users' Assigned Responsibility ID](#)
- [Customizing Settings Based on Users' Assigned Roles](#)
- [Customizing Settings Based on Users' Business Context](#)
- [Customizing Settings at Business Entity or Application Levels](#)
- [Customizing the Document Type Used For New Attachments](#)
- [Customizing the Content Server Profile Used](#)
- [Hiding or Displaying Managed Attachments Page Buttons](#)
- [Customizing Scanning](#)
- [Customizing Managed Attachments Page Images](#)
- [Customizing the Style Sheet \(CSS\) Used](#)
- [Configuring Attachment Relationship Attributes](#)
- [Configuring Revision-Specific Mode](#)
- [Changing the Result Count](#)
- [Changing the Result Template](#)
- [Setting Default Columns](#)
- [Enabling the Paperclip with Attachments \(Oracle E-Business Suite Forms Only\)](#)
- [Passing Extra Metadata Values From a Business Application to Content Server](#)
- [Resizing Oracle PeopleSoft Popup Solution Windows](#)
- [Customizing AFDocuments Security Group for Access Control List](#)
- [Configuring an Entity's Private Attachments Security Group](#)
- [Restoring Business Application User Pass Through for Managed Attachments](#)

- [Renaming the Managed Attachments Button For OAF Entities](#)

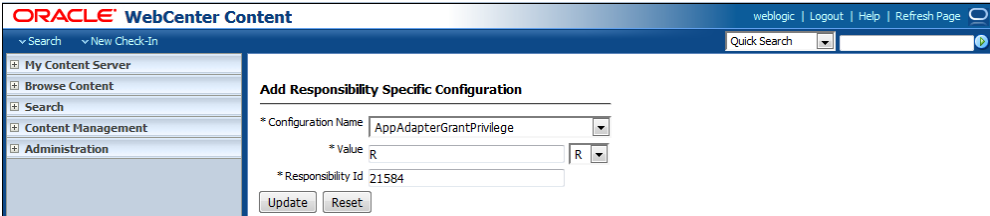
## 6.6.1 Customizing Settings Based on Users' Assigned Responsibility ID

You can customize settings based on user responsibility ID using Managed Attachments Administration. (For general information, see [Configuring Managed Attachments Settings](#).) This enables you to retain a global value while customizing settings for specific user responsibility ID. For example, you might use this feature to limit Managed Attachments access to read only for E-Business Suite users having a particular responsibility ID.

1. On Content Server, choose **Managed Attachments** from the **Administration** menu.  
The Configure Managed Attachments page displays.
2. Scroll to the **Responsibility Specific Configuration** settings in the lower portion of the page and click **Add**.
3. In the Add Responsibility Specific Configuration page shown in [Figure 6-5](#), enter fields to customize a Managed Attachments variable based on user responsibility ID and click **Update**. This example specifies the following settings:
  - Configuration Name: AppAdapterGrantPrivilege
  - Value: R
  - Role: 21584

The AppAdapterGrantPrivilege variable specifies the access level to grant to users based on the responsibility ID that is assigned to the user in E-Business Suite.

**Figure 6-5 Example Responsibility Specific Configuration**



The screenshot shows the Oracle WebCenter Content Administration interface. The left sidebar contains a navigation menu with items like 'My Content Server', 'Browse Content', 'Search', 'Content Management', and 'Administration'. The main content area is titled 'Add Responsibility Specific Configuration'. It contains three input fields: '\* Configuration Name' with a dropdown menu showing 'AppAdapterGrantPrivilege', '\* Value' with a dropdown menu showing 'R', and '\* Responsibility Id' with a text input field containing '21584'. At the bottom of the form are 'Update' and 'Reset' buttons. The top of the page includes the Oracle logo, 'WebCenter Content', and user options like 'weblogic | Logout | Help | Refresh Page'.

## 6.6.2 Customizing Settings Based on Users' Assigned Roles

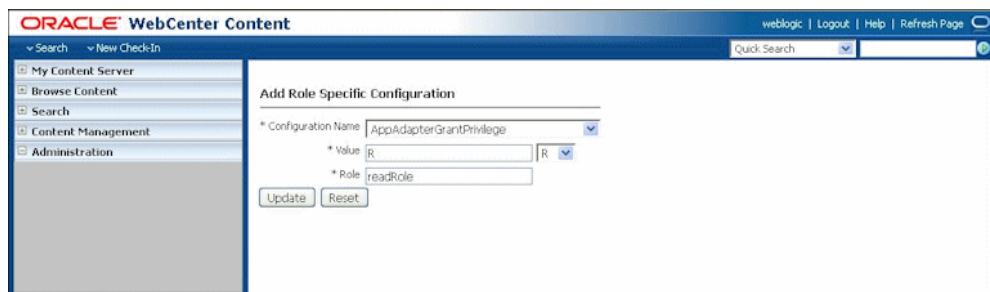
You can customize settings based on user role using Managed Attachments Administration. (For general information, see [Configuring Managed Attachments Settings](#).) This enables you to retain a global value while customizing settings for specific user roles. For example, you might use this feature to limit Managed Attachments access to read-only for Content Server users who are assigned a read-only role.

1. On Content Server, choose **Managed Attachments** from the **Administration** menu.  
The Configure Managed Attachments page displays.

2. Scroll to the **Role Specific Configuration** settings in the lower portion of the page and click **Add**.
3. In the Add Role Specific Configuration page shown in [Figure 6-6](#), enter fields to customize a Managed Attachments variable based on user role and click **Update**. This example specifies the following settings:
  - Configuration Name: AppAdapterGrantPrivilege
  - Value: R
  - Role: readRole

The AppAdapterGrantPrivilege variable specifies the access level to grant to users. This example assumes that you have configured and assigned the user role (readRole, in this example) using User Admin functions in Content Server.

**Figure 6-6 Example Role Specific Configuration**



### 6.6.3 Customizing Settings Based on Users' Business Context

You can customize settings based on user's business context using Managed Attachments Administration. (For general information, see [Configuring Managed Attachments Settings](#).) This enables you to retain the global value while customizing it for specific business contexts. For example, you might use this feature to display and enable the Scan button only when the user's business context (businessObjectContext passed from the business application) is a certain value (such as ScanContext).

1. On Content Server, choose **Managed Attachments** from the **Administration** menu.

The Configure Managed Attachments page displays.

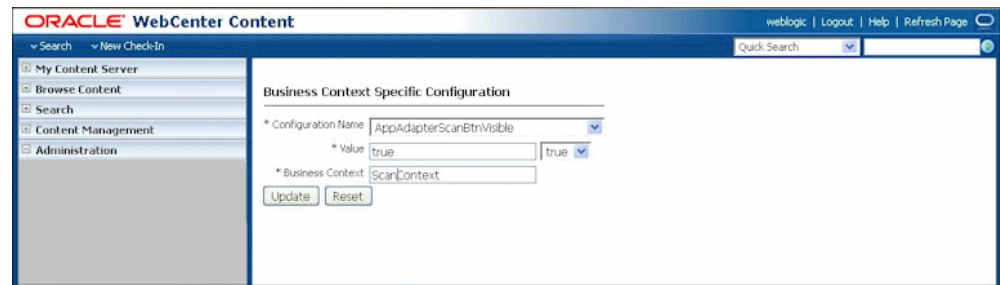
2. Scroll to the **Business Context Specific Configuration** settings in the lower portion of the page and click **Add**.
3. In the Business Context Specific Configuration page shown in [Figure 6-7](#), enter fields to customize a Managed Attachments variable based on business context, and click **Update**.

The example shown in [Figure 6-7](#) configures the Scan button to display when the businessObjectContext passed from the business application equals ScanContext. This example specifies the following settings:

- Configuration Name: AppAdapterScanBtnVisible
- Value: true
- Role: ScanContext



**Figure 6-7 Example Business Context Specific Configuration**



4. Configure the business application table to pass in the ScanContext value from the business application, just as you would configure key labels/values (labelValues).
  - For each Oracle PeopleSoft page to be configured, insert a row in the PS\_AXF\_CMD\_PARAMS table that passes ScanContext. In [PS\\_AXF\\_CMD\\_PARAMS Table](#), see the row in which AXF\_PARAM\_NAME=businessObjectContext and AXF\_CONSTANT\_VALUE=ScanContext.
  - For each Oracle E-Business Suite OAF page, insert a row in the OAF\_AXF\_CMD\_PARAMS table that passes ScanContext. In [OAF\\_AXF\\_CMD\\_PARAMS Table \(Oracle E-Business Suite OAF\)](#), see the row in which AXF\_PARAM\_NAME=businessObjectContext and AXF\_CONSTANT\_VALUE=ScanContext.
  - For each Oracle E-Business Suite Forms page, insert a row in the AXF\_COMMAND\_PARAMETERS table that passes a context value. In [AXF\\_COMMAND\\_PARAMETERS Table \(Oracle E-Business Suite Forms\)](#), see the example row in which PARAMETERNAME=businessObjectContext and CONSTANTVALUE=ScanContext. Note that you can specify a value using a constant value or a data block/fieldname.

## 6.6.4 Customizing Settings at Business Entity or Application Levels

You can customize settings at application and business entity levels using Managed Attachments Administration. (For general information, see [Configuring Managed Attachments Settings](#).) This enables you to retain the global value while customizing it for specific business entities. For example, you might enable the Scan button to permit scanning globally, but disable it for a specific business entity by hiding the button.

1. On Content Server, choose **Managed Attachments** from the **Administration** menu.
 

The Configure Managed Attachments page displays. Currently selected global settings are displayed under the Global Configuration heading.
2. Scroll to the **Entity Specific Configuration** settings in the lower portion of the page and click **Add**.
3. In the Add Entity Specific Configuration page shown in [Figure 6-8](#), enter fields to override the global setting for an entity or application.
  - To override at the business entity level, complete all fields. The example values below configure the **From Repository** button to display for the ExpenseClaims business entity only, regardless of the global setting.

- To override at the application level, leave the **Object Name** field blank. Doing so in the example below would display the **From Repository** button for all business entities of the EBS\_Instance application, regardless of the global setting.

Field	Description	Example
Application Name	Identifies the business application	EBS_Instance
Object Name	Identifies the business entity	ExpenseClaims
Configuration Name	Global configuration variable to set for business entity	AppAdapterRepoAttachButtonVisible
Configuration Value	Variable value to set for business entity	true

Figure 6-8 Example Entity Specific Configuration

The screenshot shows the Oracle WebCenter Content administration interface. On the left is a navigation menu with items like 'My Content Server', 'Browse Content', 'Search', 'Content Management', and 'Administration'. The main area is titled 'Add Entity Specific Configuration' and contains the following fields:

- Application Name: EBS\_Instance
- Object Type: ExpenseClaims
- \* Configuration Name: AppAdapterRepoAttachBtnVisible (dropdown menu)
- \* Value: false (dropdown menu)

At the bottom of the form are 'Update' and 'Reset' buttons.

 **Note:**

You must complete either the Application Name or Object Type field. Entering an object type without an application name applies the setting to the business entity of all applications with that object type.

## 6.6.5 Customizing the Document Type Used For New Attachments

A Content Server document type is selected by default when users click the **New** button to attach and check in a document. Using preferences.hda settings, you can specify a different default document type. In addition, you can specify document types on a global, application, or business entity level. For example, you might want to check in all new documents for an expenses business entity using a custom document type geared toward expense attachments.

Follow these steps.

1. On Content Server, create or modify a document type.

For more information about document types, see the Content Server documentation.

2. In the preferences.hda file, add a new row in the AFEnvironmentConfiguration resultset. For general information, see [Alternatively Editing Settings in the Preferences.hda File](#).
3. Insert an entry that identifies the document type to use as the default type for a specified business entity, where:
  - name: dDocType
  - value: document type key
  - dAFApplication: Application to which you assign this document type
  - dAFBusinessObjectType: Business entity within application to which you assign document type

Example (7-3) sets the document type *ExpenseClaimsType* as the default type when users attach documents to the ExpenseClaims business entity (within the PSFT\_Instance application).

Following is an example of Custom Default Document Type For Expenses Business Entity:

```
dDocType
ExpenseClaimsType
PSFT_Instance
ExpenseClaims
```

4. Restart the Content Server.

## 6.6.6 Customizing the Content Server Profile Used

The adapter provides a default Content Server profile for each business application:

- *EBSPProfile* for Oracle E-Business Suite
- *PSFTPProfile* for Oracle PeopleSoft
- *UniversalProfile* for the Enterprise Application Adapter Framework

For IPM web service implementation, you set the profile when running the AXF\_ATTACHMENTS\_CONFIG.sql script in [Configuring Elements for AXF Web Service Implementation of Managed Attachments](#). You can copy and customize the profile, then assign it using one of the following methods, depending on customization needs. For example, you might want to add metadata fields to the profile.

For UCM web service implementation, you set the profile using the config.cfg script in [Configuring Elements for UCM Web Service Implementation of Managed Attachments](#).

### Note:

If you use custom profiles, generic error messages display by default instead of application-specific error messages. To display custom error messages, override the resource include - af\_custom\_error\_msg\_display. In the overridden resource include, set the error message to **afErrorMsg**.

As part of customizing the Content Server profile, it is recommended to disable the Switch Profile option available in the Managed Attachments Content Check-In Form screen. If you do not do this and an incorrect profile is selected during check in, the

document check in fails. To disable the Switch Profile option, you must set the `lockDownProfile=1` in the `config.cfg` file.

### 6.6.6.1 Changing the Profile Globally

Follow these steps to change the global profile used in AXF web service implementation of Managed Attachments.

1. From the Content Server Configuration Manager, copy the default profile provided (EBSProfile, PSFTProfile, or UniversalProfile). To view these profiles, navigate to the **Profiles** tab in Configuration Manager.
2. Add new rules as needed. For example, add new metadata fields.
3. In the UCM\_CONNECTION\_STR parameter (trigger value) of the AXF\_SOLUTION\_PARAMETERS table, modify the URL to point to the new profile.

For more information, see [AXF\\_SOLUTION\\_PARAMETERS Table](#) and [Configuring Elements for AXF Web Service Implementation of Managed Attachments](#).

For UCM web service implementation, see [Configuring Elements for UCM Web Service Implementation of Managed Attachments](#) to create a custom profile.

### 6.6.6.2 Specifying a Profile For a Specific Business Entity or Application

Follow these steps to modify the profile for a specific business entity or application.

1. From the Content Server Configuration Manager, copy the default profile provided (EBSProfile, PSFTProfile, or UniversalProfile). To view these profiles, navigate to the **Profiles** tab in Configuration Manager.
2. Add new rules as needed. For example, add new metadata fields.
3. In the preferences.hda file, add a new row in the AFEnvironmentConfiguration resultset. For general information, see [Alternatively Editing Settings in the Preferences.hda File](#).
4. Insert an entry that identifies the Content Server profile to use for a specified business entity, where:
  - name: dpTriggerValue
  - value: Key of new Content Server profile
  - dAFApplication: Application to which to assign this profile
  - dAFBusinessObjectType: Business entity within application to which to assign the profile

Example (7-4) sets a profile called *OrderPayableProfile* to use when users attach or scan documents in the OrderPayables business entity within the EBS\_Instance application.

Following is an example of Custom Content Server Profile For Expenses Business Entity:

```
dpTriggerValue
OrderPayableProfile
EBS_Instance
OrderPayables
```

- Restart the Content Server.

## 6.6.7 Hiding or Displaying Managed Attachments Page Buttons

You can choose to enable (display) or disable (hide) the buttons listed in [Table 6-14](#) to users on the Managed Attachments page, by changing their variable setting to true or false, respectively. For details about Managed Attachments variables, see [Working With Global Configuration Variables](#).

**Table 6-14 Variables For Displaying or Hiding Managed Attachments Buttons**

Button Variables	Description
AppAdapterRepoAttachBtnVisible	Displays or hides the <b>From Repository</b> button
AppAdapterRefreshBtnVisible	Displays or hides the <b>Refresh</b> button
AppAdapterConfigureBtnVisible	Displays or hides the <b>Configure</b> button
AppAdapterDetachBtnVisible	Displays or hides the <b>Detach</b> button
AppAdapterCheckinNewBtnVisible	Displays or hides the <b>New</b> button
AppAdapterScanBtnVisible	Displays or hides the <b>Scan</b> button
AppAdapterAutoVueIconVisible	Displays or hides the <b>AutoVue</b> button in the Actions column
AppAdapterSearchWithinBtnVisible	Displays or hides the <b>Search Within</b> button
AppAdapterHelpIconVisible	Displays or hides the <b>Help</b> icon

Follow these steps to hide or display a button globally, or for a specific business entity or application.

- On Content Server, choose **Managed Attachments** from the Administration menu.
- Under Global Configuration, change a button's global setting to **false** to hide it, or **true** to display it.
- To configure a button's display at a business entity level, create an entity-specific configuration by clicking Add under **Entity Specific Configurations** and completing fields as described in [Customizing Settings at Business Entity or Application Levels](#).

## 6.6.8 Customizing Scanning

Following are the methods to customize scanning functionality using Oracle Distributed Document Capture 10g or using Oracle WebCenter Enterprise Capture 12c. Note that the profiles are named as scan profile in Oracle Distributed Document Capture 10g and client profile in Oracle WebCenter Enterprise Capture 12c. This section includes the following topics:

- [Enabling or Disabling Scanning](#)
- [Configuring an Alternate Scan Profile For a Business Entity](#)
- [Modifying the Document Classification Used](#)

### 6.6.8.1 Enabling or Disabling Scanning

You can enable or disable scanning at the global, application, or business entity level. For example, you might disable scanning globally, then add an entity specific configuration to enable scanning for an OrderPayables business entity only, using the following Entity Specific Configuration settings:

- Application Name: EBS\_Instance
- Object Type: OrderPayables
- Configuration Name: AppAdapterScanBtnVisible
- Configuration Value: true

### 6.6.8.2 Configuring an Alternate Scan Profile For a Business Entity

The adapter provides these default business application scan profiles, which display the Managed Attachment's Scan page. Each points to an application-specific field:

- *EBSScanProfile* references the EBSAppScanProfiles application field
- *PSFTScanProfile* references the PSFTAppScanProfiles application field
- *UniversalScanProfile* references the UniversalAppScanProfiles application field

You can customize the scan profile used, by copying the profile appropriate for your business application, modifying it to reference another application field, and configuring it for one or more business entities, as described in the following steps.

1. Copy the scan profile that applies to your business application, saving it with a new name.

In Configuration Manager, navigate to the Profiles tab and select a custom scan profile. Click **Edit** to add a particular rule to the profile. For a custom scan profile to work properly, you must select **EBSScanRule** or **PSFTScanRule**.

2. Create all required schema elements, including the AppScanProfiles application field, table, and view.

To change the application field reference, log in to Content Server. In Configuration Manager, navigate to the Rules tab. Select **PSFTScanRule**, **EBSScanRule**, or **UniversalScanRule**, click **Edit** on the Side Effects tab, and update the ScanProfileKey field to point to another application field.

3. In the preferences.hda file, add a new row in the AFEnvironmentConfiguration resultset.
4. Insert an entry that includes the afScanProfile setting, identifies the scan profile to use, and the application and business entity in which it applies.

Following example shows a scan profile called *MyPIMScanProfile* enabled for the PIM business entity only.

Following is an example of Enabling Another Scan Profile for a Business Entity:

```
afScanProfile
MyPIMScanProfile
PSFT_Instance
PIM
```

### 6.6.8.3 Modifying the Document Classification Used

The adapter provides the default business application document classifications for scanning listed in [Table 6-15](#). Each classification includes a set of Content Server application fields, a table, and a view.

**Table 6-15 Default Documentation Classifications Provided**

Business Application	Content Server Fields	Table	View
Oracle E-Business Suite	EBSAppScanProfiles	EBSDocClass	EBSDocClassView
Oracle PeopleSoft	PSFTAppScanProfiles	PSFTDocClass	PSFTDocClassView
Enterprise Application Adapter Framework	UniversalAppScanProfiles	UniversalDocClass	UniversalDocClassView

To modify the classification:

1. Log in to Content Server. In Configuration Manager, navigate to the EBSDocClassView, PSFTDocClassView, or UniversalDocClassView.
2. Edit the document classification and scan type values. For more information, see [Configuring Content Server for Distributed Document Capture Via Adapter](#).

### 6.6.9 Customizing Managed Attachments Page Images

The adapter provides standard images for Managed Attachments display, which you can customize. For example, you might replace the Oracle blue waves image with one specific for your organization. To change images, override the resource include *af\_efs\_define\_image\_locations*. For sample implementations, see *AppAdapter\_JS\_resource.htm* for Oracle E-Business Suite or *ps\_AppAdapter\_Js\_resource.htm* for Oracle PeopleSoft.

 **Note:**

Customizing images for Managed Attachments requires advanced knowledge of Content Server configuration and customization. Be sure to back up the appropriate files before making modifications.

### 6.6.10 Customizing the Style Sheet (CSS) Used

The adapter provides a standard style sheet for the Managed Attachments page. You can change it by overriding resource includes. For sample implementations, see *AppAdapter\_CSS\_resource.htm* for Oracle E-Business Suite or *ps\_AppAdapter\_CSS\_resource.htm* for Oracle PeopleSoft.

 **Note:**

Customizing style sheets for Managed Attachments requires advanced knowledge of Content Server configuration and customization. Be sure to back up the appropriate files before making modifications.

## 6.6.11 Configuring Attachment Relationship Attributes

Attachment relationship attributes allow you to store relationship metadata (information about relationships between a document and its business entity) upon attaching documents in Managed Attachments.

For example, suppose you have one document attached to two work order entities (WO1 and WO2), and want to allow users to print the document from WO1, but not from WO2. In this case, you would create a print attribute as an application field on Content Server, and then specify a print relationship attribute for the WO1 business entity in Managed Attachments Administration (or in the preferences.hda file). The print attribute would be displayed on the Update page to end-users for the WO1 entity only, allowing them to print the attached document.

### Important Points About Attachment Relationship Attributes

- You can configure attachment relationship attribute for new document check-in, but not for documents attached through scanning.
- Adding a relationship attribute creates a new Application field in Content Server for the relationship attribute if one does not exist. You can update the Application field using Content Server Admin Applets - Configuration Manager. Adding a relationship attribute also adds an entry in the AFRelationshipAttributes section of the preferences.hda file described in [Alternatively Editing Settings in the Preferences.hda File](#).
- At run-time, attachment relationship attribute values are stored in the AFRelationshipAttributes table; see [AFRelationshipAttributes Table](#).

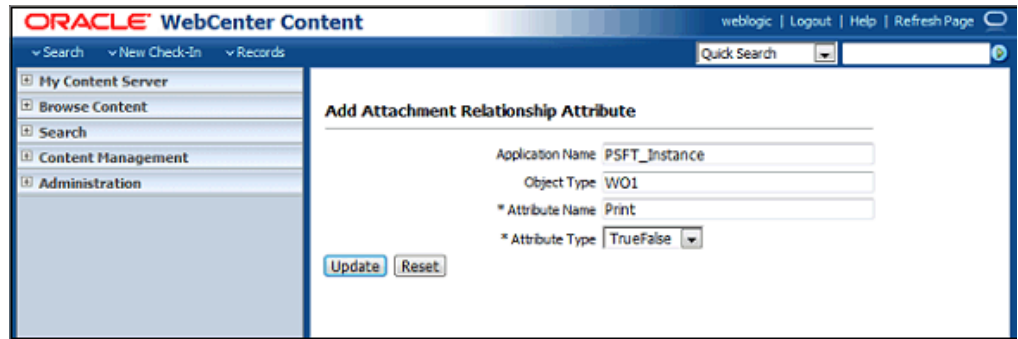
Follow these steps to configure attachment relationship attributes.

1. On Content Server, open Configuration Manager and navigate to the **Application Fields** tab.
2. Add one or more application fields.
3. Navigate to the Rules tab.
4. Edit the AFRelationshipAttributes rule. Add the application fields you added in step 2 to this rule.
5. On Content Server, choose **Managed Attachments** from the **Administration** menu.
6. On the Configure Managed Attachments page, scroll to the **Attachment Relationship Attributes** settings in the lower portion of the page, and click **Add**.

The Add Attachment Relationship Attribute page displays.



**Figure 6-9 Add Attachment Relationship Attribute Page**



7. Complete fields for the attribute and click **Update**. The example in [Figure 6-9](#) shows a relationship attribute (Print) configured for an WO1 business object for an Oracle PeopleSoft application.

Element	Description	Example
Application Name	Business application for which the relationship attribute is configured.	PSFT_Instance
Object Type	Business object for which to enable the relationship attribute	WO1
Attribute Name	Relationship attribute	Print
Attribute Type	Attribute's type. Available types include: Text, Long Text, Date, Memo, Integer, and TrueFalse.	TrueFalse

## 6.6.12 Configuring Revision-Specific Mode

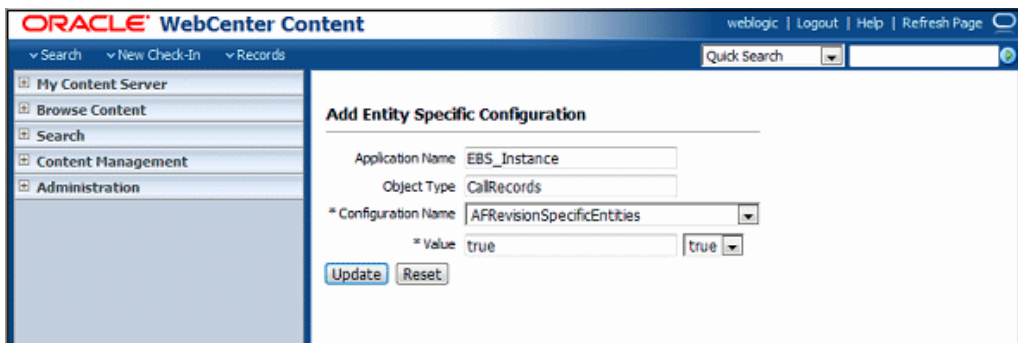
By default, each attachment on the Managed Attachments page provides access to the *most recent revision* of the document. In certain cases, however, you may want to configure one or more business entities to provide access to the revision that was *attached*, even if the document was later updated on Content Server. In this mode, users can see that a more recent revision exists, and if needed, view it and make it the attached revision.

Follow these steps to configure a business entity to display the attached revision instead of the most recent revision.

1. On Content Server, choose **Managed Attachments** from the Administration menu.
2. On the Configure Managed Attachments page, scroll to the **Entity Specific Configuration** settings in the lower portion of the page, and click **Add**.

The Add Entity Specific Configuration page displays.

**Figure 6-10 Configuring Revision Specific Mode in the Add Entity Specific Configuration Page**



- Complete fields for revision specific mode, choosing `AFRevisionSpecificEntities` for the **Configuration Name** field, and click **Update**. The example in [Figure 6-10](#) shows revision specific mode configured for a `CallRecords` business object for an Oracle E-Business Suite application.

Element	Description	Example
Application Name	Business application for which the relationship attribute is configured.	EBS_Instance
Object Type	Business object for which to enable the relationship attribute.	CallRecords
Configuration Name	To configure revision specific mode, choose <b>AFRevisionSpecificEntities</b> .	Print
Field Type	To configure revision specific mode, choose true.	true

Alternatively, follow these steps to configure revision-specific mode using the `preferences.hda` file.

- Open the `preferences.hda` file, and add a new row in the `AFRevisionSpecificEntities` resultset. (For general information, see [Alternatively Editing Settings in the Preferences.hda File](#).)

Each row in the resultset represents one business entity for which to enable revision specific attachments, where:

- `dAFApplication` refers to the business application for which to enable the revision feature.
- `dAFBusinessObjectType` refers to the business object for which to enable the revision feature.

Following example shows revision-specific mode configured for a `CallRecords` business object for an Oracle E-Business Suite application.

Following is an example of `AFRevisionSpecificEntities` Customization:

```
@ResultSet AFRevisionSpecificEntities
2
dAFApplication
dAFBusinessObjectType
EBS_Instance
```

```
CallRecords
@end
```

## 6.6.13 Changing the Result Count

The Managed Attachments page displays a specific number of attachment results per page (referred to as *ResultCount*). If the number of results exceeds *ResultCount*, previous and next page controls display on the page. You can change it to another number (such as 20) by specifying a new *ResultCount* value in Managed Attachments configuration. See [Working With Global Configuration Variables](#).

## 6.6.14 Changing the Result Template

The Managed Attachments page uses a result template to determine its display. The Content Server result template specifies the Managed Attachments user interface. The adapter provides these result templates:

- The Oracle E-Business Suite template, *adapter\_list\_results\_template.htm*, is referred to as **EBS\_LIST**.
- The Oracle PeopleSoft template, *ps\_adapter\_list\_results\_template.htm*, is referred to as **PSFT\_LIST**.
- The Enterprise Application Adapter Framework template, *universal\_adapter\_list\_results\_template.htm*, is referred to as **Universal\_LIST**. See [Optionally Customizing the Framework Layout Images and Profile](#).

Follow these steps to identify an alternate result template for an application or business entity.

### Note:

Customizing the result template requires advanced knowledge of Content Server administration and customization.

1. Create a copy of the appropriate default result template and register the template with a new name, preferably in a new component.

- The Oracle E-Business Suite template is located at:

```
UCM_HOME/custom/AppAdapterEBS/adapter_list_results_template.htm
```

- The Oracle PeopleSoft template is located at:

```
UCM_HOME/custom/AppAdapterPSFT/ps_adapter_list_results_template.htm
```

- The Enterprise Application Adapter Framework template is located at:

```
UCM_HOME/custom/AppAdapterUniversal/
universal_adapter_list_results_template.htm
```

2. In the preferences.hda file, add an entry in the *AFEnvironmentConfiguration* section as follows:

```
ResultTemplate
Template Reference
Application Name
Business Entity
```

In the following example, all requests to Managed Attachments for the WorkOrder business entity would use the *EBS\_WORK\_ORDER\_LIST* custom result template instead of the default Oracle E-Business Suite template.

Following is an example of Preferences.hda Entry For Specifying a Custom Result Template:

```
ResultTemplate
EBS_WORK_ORDER_LIST
EBS_Instance
WorkOrder
```

## 6.6.15 Setting Default Columns

You can specify the default columns to display to users in the Managed Attachments page. (When the user clicks **Reset** in the Configure Fields for Display page, default columns are listed in the Main Information section of the page.)

The column defaults are title, type, author, date, and revision as follows:

```
dDocTitle,dDocType,dDocAuthor,dInDate,dRevision
```

To set alternate default columns for an application or business entity, follow these steps.

1. In the preferences.hda file, add an entry in the AFEnvironmentConfiguration section.
2. Set the value of the *AppAdapterDefaultDisplayColumns* configuration variable as a comma-delimited list containing Content Server metadata field names.

In the following example, the first entry sets document title, type, author, and date as the default columns for the EBS\_Instance application. The second entry overrides this setting for the CallRecords business entity by adding the revision column (dRevision) as a default column.

Following is an example of Preferences.hda Entries For Specifying Default Columns:

```
AppAdapterDefaultDisplayColumns
dDocTitle,dDocType,dDocAuthor,dInDate
EBS_Instance

AppAdapterDefaultDisplayColumns
dDocTitle,dDocType,dDocAuthor,dInDate,dRevision
EBS_Instance
CallRecords
```

## 6.6.16 Enabling the Paperclip with Attachments (Oracle E-Business Suite Forms Only)

By default, the Oracle E-Business Suite paperclip attachment option is disabled as part of Managed Attachments configuration. To use this native Oracle E-Business Suite attachments feature in coexistence with the Managed Attachments solution, you must reenable the paperclip icon as described as follows.

 **Note:**

This section applies to Oracle E-Business Suite Forms use only.

1. Add the following row to the AXF\_PROPERTIES table:

**Table 6-16 AXF\_PROPERTIES Values For PaperClip Use**

PROPNAME	PROPVAlUE
AXF_PAPERCLIP	Set to TRUE to enable the paperclip option, or FALSE (default) to disable it. (The value must be in uppercase characters.)

For more information, see [AXF\\_PROPERTIES Table \(Oracle E-Business Suite Forms\)](#).

## 6.6.17 Passing Extra Metadata Values From a Business Application to Content Server

You can configure the Managed Attachments solution to pass extra metadata values from the business application to Content Server to store with attached documents. For example, you might pass a claim number from a Claims application so that when users attach or scan documents, a Claim Number field on the Content Check In and Scan Document pages is prepopulated with the value.

This feature works as follows:

- The business application field whose metadata value is to be passed to Content Server must exist in the business application. For example, you might pass a business record's service request number or primary key.
- Using Content Server's Managed Attachments administration variables ([Table 6-9](#) and [Table 6-10](#)), you specify the field whose value will be passed when users either check in or scan a document. This prepopulates the specified field in the Content Check In or Scan Document page for users.
- In the business application's command parameters table, you identify the extra metadata field to be passed.

Follow these steps to configure passing extra metadata values.

1. From Content Server, choose **Managed Attachments** from the Administration menu.
2. Under **Global Configuration**, enter one or more field names to pass, using a comma to separate multiple names.
  - Enter field names in the **AppAdapterExtraCheckinMetadata** field to pass their values directly to the Content Check In page.
  - Enter field names in the **AppAdapterExtraScanMetadata** field to pass their values directly to the Scan Document page.
3. Access the command parameters table for your business application.

- For an Oracle E-Business Suite Forms configuration, access the [AXF\\_COMMAND\\_PARAMETERS Table \(Oracle E-Business Suite Forms\)](#) and the [AXF\\_MA\\_PARAMETERS Table \(Oracle E-Business Suite Forms\)](#) to pass additional parameters.
  - For an Oracle E-Business Suite OAF configuration, access the [OAF\\_AXF\\_CMD\\_PARAMS Table \(Oracle E-Business Suite OAF\)](#).
  - For a PeopleSoft configuration, access the [PS\\_AXF\\_CMD\\_PARAMS Table](#).
  - For an Enterprise Application Adapter Framework configuration, see [Passing Values Via Enterprise Application Adapter Framework](#).
4. Add entries in the table for the extra values to be passed to Content Server, similar to adding labelValue rows. See the example command shown in the following example and the example table shown in [Table 6-17](#).

Add a row for each metadata value, prepending the Content Server field name with **extra**. For example, `xReqNum` becomes `extraxReqNum` and `dDocTitle` becomes `extradDocTitle`.



**Note:**

Typically, Content Server extra information fields have an x character in front of them and standard ones have a d character in front of them. For more information, see Standard Metadata Fields in the *Managing Oracle WebCenter Content*.

Following is an example of Inserting Extra Metadata Field into OAF Command Parameters Table:

```
Insert into OAF_AXF_CMD_PARAMS (AXF_CMD_PARAMS_ID, AXF_CMDS_ID, AXF_PARAM_NAME,
AXF_DATASOURCE,AXF_VIEW_OBJ_NAME, AXF_ATTRIBUTE_NAME,AXF_CONSTANT_VALUE) values
(OAF_AXF_CMD_PARAMS_SEQ.NEXTVAL,v_cmdId,'extraxReqNum','DATA','ReqHeaderVO',
'ReqNum',null);
```

**Table 6-17 Example OAF\_AXF\_CMD\_PARAMS Table With Extra Metadata Field Specified**

AXF_CMD_PARAMS_ID	AXF_CM DS_ID	AXF_PARAM_NAME	AXF_DATA SOURCE	AXF_VIEW OBJ_NAME	AXF_ATTRIBUTE _NAME	AXF_CONSTANT_ VALUE
1	1	application	CONSTANT			EBS_instanceA
2	1	businessObject Type	CONSTANT			REQ_HEADERS
3	1	businessObject Key1	CONSTANT			REQUISITION_HEA DER_ID
4	1	businessObject Value1	DATA	ReqHeaderV O	RequisitionHeaderI d	
5	1	labelValue1	DATA	ReqHeaderV O	PreparerName	
6	1	labelValue2	DATA	ReqHeaderV O	ReqNum	
7	1	<b>extraxReqNum</b>	DATA	ReqHeaderV O	ReqNum	

5. For an Oracle E-Business Suite Forms configuration, populate the [AXF\\_MA\\_PARAMETERS Table \(Oracle E-Business Suite Forms\)](#) table using a script similar to the following:

```
BEGIN
  FOR x1 IN
    (SELECT fndid, block_name FROM axf.axf_fnd_map WHERE FORM_NAME =
'APXINWKB')
  LOOP
    INSERT
    INTO AXF.AXF_MA_PARAMETERS VALUES
    (
    AXF.AXF_MA_PARAMETERS_SEQ.nextval,
    x1.fndid,
    'extraxIDNumber',
    'DATA',
    x1.block_name,
    'INVOICE_NUM',
    NULL,
    '0',
    SYSDATE,
    SYSDATE,
    '0',
    '0'
    );
  END LOOP;
END;
```

This script creates many new rows in the AXF\_MA\_PARAMETERS table. You can use the script for other forms by changing the form\_name parameter (APXINWKB) to another form\_name parameter (FAXASSET or PERWSHRG). You can also change the metadata field (xIDNumber) to another field. Replace INVOICE\_NUM in the script depending on the value that you want to pull from a form. For example, in FAXASSET Form you must replace INVOICE\_NUM in the script with ASSET\_NUMBER.

### 6.6.17.1 Passing Values Via Enterprise Application Adapter Framework

For the Enterprise Application Adapter Framework, pass the extra metadata values as part of the request parameters section of the SOAP envelope body, prepending the Content Server field name with **extra** (xReqNum becomes extraxReqNum and dDocTitle becomes extradDocTitle). For example:

```
<entry><key>extraxReqNum</key><value>123456</value></entry>
```

### 6.6.18 Resizing Oracle PeopleSoft Popup Solution Windows

You can change the default system-wide size for all Oracle PeopleSoft popup windows that display as part of solutions. Note the following:

- The default popup window size is 600 pixels high by 800 wide, set in the [PS\\_AXF\\_PROPERTIES Table](#). When a size is set in this table, users cannot set and save popup window size themselves.
- To change window size, enter new values in the table, as shown in [PS\\_AXF\\_PROPERTIES Table](#).
- To remove the popup window size and allow individual users to change and save popup window size using standard browser controls, remove the

WINDOW\_HEIGHT and WINDOW\_WIDTH rows from the [PS\\_AXF\\_PROPERTIES Table](#).

## 6.6.19 Customizing AFDocuments Security Group for Access Control List

You can configure Access Control List (ACLs) and also use Entity Security for Managed Attachments. To customize AFDocuments security group for ACLs, add AFDocuments to the SpecialAuthGroups configuration variable in the config.cfg file. For example: SpecialAuthGroups=AFDocuments.

## 6.6.20 Configuring an Entity's Private Attachments Security Group

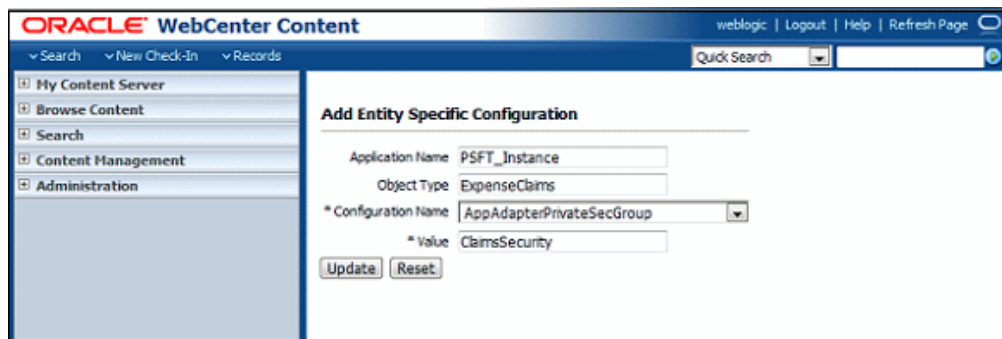
When users check in documents through Managed Attachments, they can choose private or shared access for them, as described in [Configuring Document Security](#). Private documents are automatically assigned to a special Content Server security group called *AFDocuments*.

On a per entity level, you can optionally override the security group for private attachments, and assign documents to an alternate security group, by following these steps.

1. On Content Server, choose **Managed Attachments** from the Administration menu.
2. On the Configure Managed Attachments page, scroll to the **Entity Specific Configuration** settings in the lower portion of the page, and click **Add**.

The Add Entity Specific Configuration page displays.

**Figure 6-11** Configuring Entity Level Private Attachments Security Group



3. In the Add Entity Specific Configuration page shown in [Figure 6-11](#), complete the fields, identifying the *AppAdapterPrivateSecGroup* variable and the alternate security group to use for a specified business entity, where:
  - Application Name: Application for which to assign alternate security group
  - Object Type: Business entity for which to assign alternate security group
  - Configuration Name: AppAdapterPrivateSecGroup
  - Configuration Value: Alternate security group



The example values shown in [Figure 6-11](#) set *ClaimsSecurity* as the security group when users attach private documents to the ExpenseClaims business entity (within the PSFT\_Instance application).

4. Assign the following roles to the specified security group (must be the same as those assigned to the AFDocuments security group): AFRead, AFWrite, AFDelete, and AFAdmin.
5. In the config.cfg file, add the alternate security group to the **SpecialAuthGroups** configuration variable if you have configured Access Control List (ACLs) and want to use Entity Security for Managed Attachments.

## 6.6.21 Restoring Business Application User Pass Through for Managed Attachments

As described in [Allowing Oracle WebLogic Server/Business Application Users to Perform Tasks](#), the BPEL Imaging solution allows you to configure the authenticated Oracle WebLogic Server user to perform tasks, rather than the user passed from Oracle E-Business Suite or Oracle PeopleSoft. This option is provided through a USERNAME\_PASS\_THROUGH parameter in the AXF\_SOLUTION\_ATTRIBUTES Table, where:

- TRUE (default): Uses the passed-in user from Oracle E-Business Suite or Oracle PeopleSoft to perform tasks.
- FALSE: Uses the authenticated Oracle WebLogic Server user to perform tasks.

 **Note:**

If no value is provided, the value defaults to FALSE.

The Managed Attachments solution requires that the passed-in user from Oracle E-Business Suite or Oracle PeopleSoft perform tasks. The AXF\_ATTACHMENTS\_CONFIG.SQL script that you ran in [Configuring Elements for AXF Web Service Implementation of Managed Attachments](#) for Managed Attachments sets the USERNAME\_PASS\_THROUGH value to TRUE. If needed at any point, restore the parameter's value to TRUE, as shown in [Table 6-18](#) and [AXF\\_SOLUTION\\_ATTRIBUTES Table](#).

**Table 6-18 AXF\_SOLUTION\_ATTRIBUTES Table, USERNAME\_PASS\_THROUGH Configuration for Managed Attachments**

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AXF	USERNAME_PASS_THROUGH	TRUE

## 6.6.22 Renaming the Managed Attachments Button For OAF Entities

To rename the Managed Attachments button for Oracle E-Business Suite OAF entities, such as for localization purposes:

1. Open the *ManagedAttachmentButtonRN.xml* file, which was imported into the MDS repository on the Oracle E-Business Suite OAF side during setup.

2. Locate the following line and replace `Managed Attachments` with a localized name.

```
<oa:button id="MAButton" prompt="Managed Attachments"/>
```

3. Using the `import` command, reimport the file into MDS.

## 6.7 Configuring Authentication and Security

Following are the instructions on managing authentication and security for the Managed Attachments solution. It includes:

- [Configuring a CSF Credential for Managed Attachments](#)
- [Configuring User Authentication](#)
- [Configuring Document Security](#)
- [Securing Communications Between AXF and Content Server](#)
- [Managing Business Application and Content Server Users](#)

### 6.7.1 Configuring a CSF Credential for Managed Attachments

You must store the administrator user credentials in a credential store framework (CSF), a user name/password pair that is keyed by an alias and stored inside a named map in the CSF. The user name stored in the CSF is compared with the user name sent by Oracle E-Business Suite, Oracle PeopleSoft, or a custom plug-in calling the Enterprise Application Adapter Framework in the web services call. If the administrator user names do not match (see [AXF\\_SOLUTION\\_PARAMETERS Table](#)), access to the Managed Attachments page is prevented.

You can create a credential through Enterprise Manager (EM) or through WebLogic Scripting Tool (WLST).

#### 6.7.1.1 Creating a Credential Using Enterprise Manager

1. Log in to Enterprise Manager.
2. Right-click on your domain under **WebLogic Domain**.
3. Click **Security** and then **Credentials**.
4. Select the `oracle.wsm.security` map. If it does not exist, follow these steps:
  - a. Select **Create Map**.
  - b. Enter `oracle.wsm.security` in the map field and click **OK**.
5. Expand the `oracle.wsm.security` map.
6. Click **Create Key**. The key is now available for selection.
7. Enter `MA_CSF_KEY` as the key name.
8. Select **password** in the **Type** field.
9. Enter a user name and password for a valid Oracle WebLogic Server administrator (for example, `weblogic` and `Welcome1`).

The user name and password are passed by the business application to AXF, and were previously configured for the Web Services call from Oracle E-Business Suite (see [Securing Communications Through SOAP Security](#)), Oracle PeopleSoft (see [Configuring Communication for Managed Attachments Web Service](#)), and a

custom plug-in calling the Enterprise Application Adapter Framework (see [Configuring the SOAP Service Call and Managed Attachments URL Display](#)).

10. Click **OK**.

### 6.7.1.2 Creating a Credential Using WLST

1. Execute the following command, where `username` and `password` refer to a valid Oracle WebLogic Server administrator passed by the business application to AXF, and were previously configured for the Web Services call from Oracle E-Business Suite (see [Securing Communications Through SOAP Security](#)), Oracle PeopleSoft (see [Configuring Communication for Managed Attachments Web Service](#)), and a custom plug-in calling the Enterprise Application Adapter Framework (see [Configuring the SOAP Service Call and Managed Attachments URL Display](#)).

```
createCred(map="oracle.wsm.security", key="MA_CSF_KEY", user=[username],  
password=[password])
```

Example:

```
createCred(map="oracle.wsm.security", key="MA_CSF_KEY", user="weblogic",  
password="Welcome1")
```

2. Execute the following command to verify that the credential was created properly:

```
listCred(map="oracle.wsm.security",key="MA_CSF_KEY")
```

## 6.7.2 Configuring User Authentication

Business application users must have a Content Server account to display the Managed Attachments page within the supported business application entity. In addition, the authentication model configured for Content Server and the business application determines how users are authenticated the first time they activate managed attachments from a business application record:

- **Content Server configured for single sign-on:** If the business application is not configured for single sign-on, the Content Server single sign-on login prompt displays. (If the business application is configured for single sign-on, the user has been authenticated so no login prompt displays.)
- **Content Server *not* configured for single sign-on:** The Content Server login prompt displays, regardless of the selected business application authentication model.

#### Note:

No user authentication is needed for AXF if security checks are properly configured, as described in [Configuring Authentication and Security](#).

## 6.7.3 Configuring Document Security

When checking documents into Content Server through the Managed Attachments user interface, users specify their access by choosing one of two modes:

- **private** (not shared): Users can access these documents only through their associated business application entity screens through the Managed Attachments

user interface. Users (including the user who checks in a document) cannot search for or access a private document using any other standard Content Server user interface. This is the default security mode when checking in a new document through the Managed Attachments user interface.

 **Note:**

The **AppAdapterCheckinPrivate** global configuration variable determines if the **Share Document** field on the Content Check-In page is deselected by default (set for private check-in). For more information, see [Working With Global Configuration Variables](#).

 **Note:**

Private (not shared) documents are automatically assigned to a special security group called *AFDocuments*, and users who have access to the business application entity are granted temporary access to the documents when they invoke the Managed Attachments user interface. The **AppAdapterPrivateSecGroup** variable enables you to override on a per entity level the security group to use for private attachments, and assign them to an alternate group. For more information, see [Configuring an Entity's Private Attachments Security Group](#).

In certain exceptional cases, an administrator might grant special users direct access to the *AFDocuments* security group by permanently assigning the *AFRead*, *AFWrite*, *AFDelete*, or *AFAdmin* roles for the *AFDocuments* security group, in which case the user could access a private document through any standard Content Server user interface.

- **shared:** These documents are more easily accessed than private documents, because their security is managed by Content Server. In addition to access through their associated business application entity screens through the Managed Attachments user interface, any Content Server user with a document's assigned security group access can search for and access the document using any standard Content Server user interface.

 **Note:**

Users can view shared documents only in AutoVue (if configured). They cannot view private documents. For details, see [Configuring Oracle AutoVue Document Viewing](#).

## 6.7.4 Securing Communications Between AXF and Content Server

Follow these steps to enable trusted communication between the host on which AXF is running and the Content Server. On the Content Server, you have two options for this configuration step: either using the System Properties application or by editing the `config.cfg` file.

### 6.7.4.1 Using the Content Server System Properties Application

1. Open the System Properties utility for the Content Server instance.
2. Select the Server tab.
3. Identify the AXF host by either entering a name in the **Hostname Filter** field or an address in the **IP Address Filter** field.
4. Click OK and restart Content Server.

### 6.7.4.2 By Editing the Content Server Config.cfg File

1. Open the config.cfg file.
2. Locate the SocketHostAddressSecurityFilter entry, and edit it to include the IP address of the system on which AXF is running.
3. Restart Content Server.

## 6.7.5 Managing Business Application and Content Server Users

Keep the following guidelines in mind when managing Oracle E-Business Suite, Oracle PeopleSoft, or other business application users for Managed Attachments access (for example, when managing users in a central repository using single sign-on):

- In order for business application users to access Managed Attachments functionality, their Oracle E-Business Suite, Oracle PeopleSoft, or other business application user names **MUST** match their Content Server user names.
- When creating Content Server users (global or local), do **NOT** assign the AFRead, AFWrite, AFDelete, or AFAdmin roles.

The adapter dynamically assigns roles to the user: Roles are granted to the user based on dPrivilege's value when the AF\_GRANT\_ACCESS service is invoked (see [AFGrants Table](#)); or, if not specified, based on the configuration variable AppAdapterGrantPrivilege's value (see [Configuring Managed Attachments Settings](#)). Depending on the privilege (R, W, D, or A), a predefined role is dynamically assigned to the user.

 **Caution:**

Do not delete the AFRead, AFWrite, AFDelete, AFAdmin roles from the system.

## 6.8 Configuring Oracle AutoVue Document Viewing

Configuring Oracle AutoVue includes the following topics:

- [About Configuring Oracle AutoVue](#)
- [Requirements For Oracle VueLink for Content Server](#)
- [Enabling AutoVue For the Adapter](#)

## 6.8.1 About Configuring Oracle AutoVue

The default document viewing option for the Managed Attachments page is the standard web rendition provided by Content Server. For enhanced viewing options, the adapter also supports Oracle AutoVue through VueLink for Content Server, where non-private attachments of virtually any document type are available for viewing, printing, collaboration, annotation, and mark up, delivered securely using Web technologies.

### Important Points About the AutoVue/Adapter Integration

- If configured, users can view all non-private attachments through AutoVue. For details on shared versus private documents, see [Configuring User Authentication](#).
- The VueLink integration serves as a bridge that securely streams documents from the Content Server repository to AutoVue for viewing, digital markup and collaboration. Digital markups are saved in the Content Server repository and associated with the attached document.
- By default, AutoVue is turned off in the Managed Attachments solution. You activate it on the Configure Managed Attachments page, by displaying the AutoVue icon and identifying the URL to the AutoVue servlet to launch when the user clicks the **View in AutoVue** icon.
- As with other preferences settings, you can enable the AutoVue integration at the global, application, and business entity levels.
- AutoVue trusts the user authentication against Content Server. Once authenticated to Content Server, no further authentication to AutoVue is required for users to view attached documents using AutoVue.
- Viewing or annotating a document in AutoVue does not check it out or prevent it from being edited by others. Annotations are contained in a separate layer from their corresponding document.

## 6.8.2 Requirements For Oracle VueLink for Content Server

Following are the requirements for integrating AutoVue viewing with Content Server. For specific release requirements, see the configuration and certification information at the following location:

<http://www.oracle.com/technetwork/middleware/webcenter/content/documentation/documentation-155348.html>

### Note:

The requirements listed in this section apply only if providing optional document viewing with the adapter through Oracle AutoVue.

Requirements include:

- Oracle AutoVue (and any applicable service packs).
- Oracle VueLink for Content Server, the AutoVue VueLink integration for Content Server. (Also see the system administrator documentation for this integration.)

## 6.8.3 Enabling AutoVue For the Adapter

Follow these steps to enable and configure AutoVue document viewing globally, or for a specific application or business entity.

1. Configure the Content Server/AutoVue integration.

Follow the procedures outlined in the *Oracle VueLink 20 for Oracle UCM System Administrator Manual*

2. On Content Server, choose **Managed Attachments** from the Administration menu.
3. On the Configure Managed Attachments page, enable display globally of the AutoVue icon by setting the **AppAdapterAutoVueIconVisible** variable to True. For general information, see [Configuring Managed Attachments Settings](#).
4. In the **AutoVueURLPath** field, specify the AutoVue servlet to run, using the following format:

```
http://ucm_host_name:port/web_root/idcplg?IdcService=VIEW_IN_AUTOVUE
```

For example:

```
http://ucm1.example.com/cs/idcplg?IdcService=VIEW_IN_AUTOVUE
```

5. Optionally specify application or business entity settings by adding new rows in the AFEnvironmentConfiguration resultset for the AppAdapterAutoVueIconVisible and AutoVueURLPath variables, where:
  - dAFApplication: Application in which to display or hide button
  - dAFBusinessObjectType: Business entity within application in which to display or hide button

Figure 6-12 contains several AutoVue settings. It assumes that the **View in AutoVue** icon is set to false globally. The first two entries enable and display the icon for the PSFT\_Instance\_A application. The last two entries enable and display the icon for the PSFT\_Instance\_B application, but *only* within its PIM business entity.

**Figure 6-12 Example AutoVue Document Viewing**

Application Name	Object Type	Configuration Name	Configuration Value	Action
PSFT_Instance_A		AutoVueURLPath	http://ucm1.example.com/idc/jsp/autovue/csiApplet.jsp	<a href="#">Delete</a>
PSFT_Instance_A		AppAdapterAutoVueIconVisible	true	<a href="#">Delete</a>
PSFT_Instance_B	PIM	AutoVueURLPath	http://ucm1.example.com/idc/jsp/autovue/csiApplet.jsp	<a href="#">Delete</a>
PSFT_Instance_B	PIM	AppAdapterAutoVueIconVisible	true	<a href="#">Delete</a>

## 6.9 Configuring Oracle WebCenter Enterprise Capture

Following topics provide information on how to configure Oracle WebCenter Enterprise Capture:

- [About Document Scanning Using Oracle WebCenter Enterprise Capture](#)

- [Oracle WebCenter Enterprise Capture and Related Components Requirements](#)
- [Configuring Oracle WebCenter Capture For the Adapter](#)
- [Configuring Content Server for WebCenter Enterprise Capture via Adapter](#)
- [Testing the Oracle WebCenter Enterprise Capture via Adapter Configuration](#)



**Note:**

For installation requirements specific to Oracle WebCenter Enterprise Capture use with this adapter, see [Oracle WebCenter Enterprise Capture and Related Components Requirements](#).

## 6.9.1 About Document Scanning Using Oracle WebCenter Enterprise Capture

The Oracle WebCenter Enterprise Capture application enables an application such as the adapter to direct it to scan a document and pass in document metadata values. This allows users to scan a document or import a file (image or non-image file such as PDF or Microsoft Word file) from the Managed Attachments page and attach it to the selected business application record.

When configured for the adapter, document scanning works as follows:

- A **Scan** button is added to the Managed Attachments page. The user clicks the button, and selects options such as a **Document Classification** and **Security Group** which are assigned to an Oracle WebCenter Enterprise Capture client profile. For example, the user might select a classification of *Identity Documents* to scan a photocopy of a driver's license or passport. (An Oracle WebCenter Enterprise Capture client profile specifies scanning, importing, and indexing settings.) The user also specifies whether the document should be shared, and if so the user specifies a security group for the shared document from those to which the user has access.
- When the user clicks the **Scan Document** button, Oracle WebCenter Enterprise Capture's client launches in a new window and passes in parameters such as the client profile to use and business application entity values for later attachment.
- Within the Oracle WebCenter Enterprise Capture client, the user reviews the document, makes changes as needed, completes any metadata fields configured in the client profile, and then releases the batch. Releasing the batch commits the new document to Content Server using a Capture commit profile configured to output to WebCenter Content. (A Capture commit profile configured for Content output specifies connection information and field mappings between WebCenter Enterprise Capture and Content Server metadata fields.)
- Upon successful batch release, the user returns to the Managed Attachments page and refreshes the display to view the newly scanned document or imported file.



## 6.9.2 Oracle WebCenter Enterprise Capture and Related Components Requirements

Following are the requirements for implementing scanning and importing functionality with Oracle WebCenter Enterprise Capture. For complete system requirements, such as browsers, see the configuration and certification information at the following location:

<http://www.oracle.com/technetwork/middleware/webcenter/content/documentation/documentation-155348.html>

### Note:

The requirements listed in this section apply only if you are using Oracle WebCenter Enterprise Capture for optional scanning functionality.

Requirements include:

- Oracle WebCenter Enterprise Capture 12c

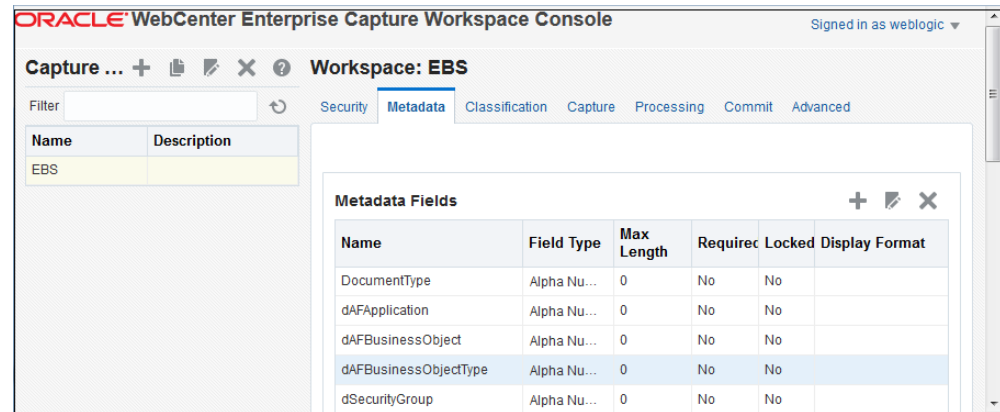
## 6.9.3 Configuring Oracle WebCenter Capture For the Adapter

If you have Oracle WebCenter Enterprise Capture 12c, use the following URL to install Capture client on your machine: `http://capture_host:port/dc-client`.

Follow these steps to configure attachment scanning on the Oracle WebCenter Capture side:

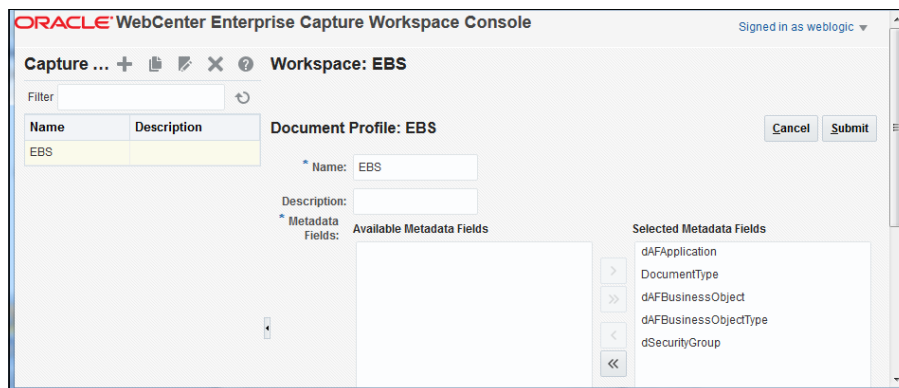
1. If needed, configure Single Sign-on (SSO) for Oracle WebCenter Capture.  
As long as the adapter and WebCenter Capture are configured in Oracle Access Manager (OAM), Capture users can be authenticated via SSO.
2. In the Capture Workspace Console, add metadata fields to a selected workspace for capturing values for new documents, as shown in [Configuring Oracle WebCenter Capture For the Adapter](#). For details, see *Adding or Editing a Metadata Field in the Managing Oracle WebCenter Enterprise Capture*.
  - a. Create metadata fields for values to save with attached documents on the Content Server. For example, you might configure Doc Type and Security Group choice list metadata fields for users to select from standard document types.
  - b. Create the following alphanumeric metadata fields to contain the business application entity values and required fields:
    - dAFApplication
    - dAFBusinessObjectType
    - dAFBusinessObject
    - dSecurityGroup

Figure 6-13 WebCenter Capture, Metadata Fields



3. On the Workspace's **Classification** tab, create a document profile for the adapter metadata fields, as shown in [Configuring Oracle WebCenter Capture For the Adapter](#). For details, see Adding or Editing a Document Profile in the *Managing Oracle WebCenter Enterprise Capture*.

Figure 6-14 WebCenter Capture, Document Profile



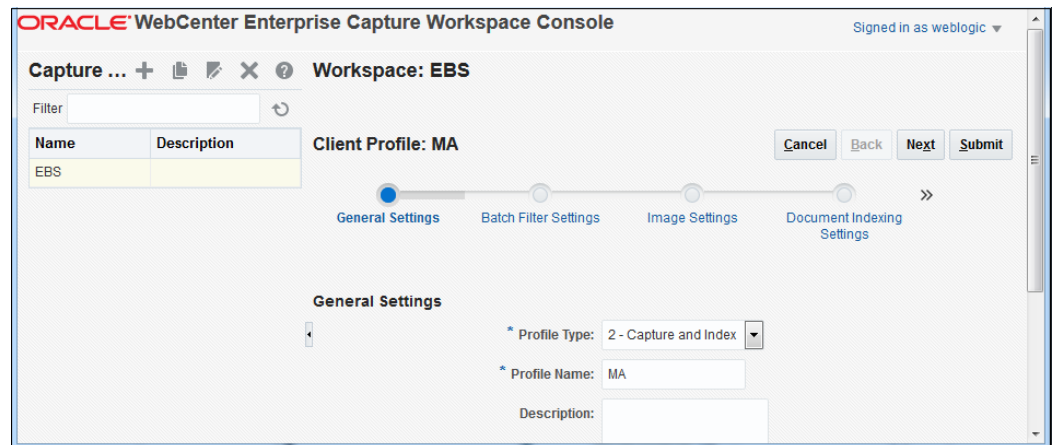
**Note:**

Typically, you would not select the business application entity field (dAFBusinessObject, for example) for display to users. If you choose to display it, lock it under the metadata settings to prevent users from changing the value.

4. On the **Capture** tab, create a client profile, as shown in [Configuring Oracle WebCenter Capture For the Adapter](#). Later, you associate this client profile with one or more document classifications, so that when a user selects a classification, the associated client profile's settings are used. For details, see Introduction to Client Profiles in the *Managing Oracle WebCenter Enterprise Capture*.
  - a. On the **General Settings** train stop, select **2 - Capture and Index** in the **Profile Type** field. This capture type includes capturing (scanning or importing) and indexing. Specify a profile name and batch prefix for the client profile.

- b. On the **Document Indexing Settings** train stop, select the adapter document profile you created in step [Configuring Oracle WebCenter Capture For the Adapter](#). You can optionally select a database lookup profile if you created one on the Metadata tab.
- c. Click **Submit** to save the client profile.

**Figure 6-15 WebCenter Capture, Client Profile**



5. On the **Commit** tab, create an Oracle WebCenter Content commit profile to commit the scanned or imported documents to the Content Server when users release a completed batch.

This commit profile specifies how to connect to the Content Server and how the business application and Capture values are passed to the Content Server. For information about creating Content Server commit profiles, see *About the WebCenter Content Commit Driver* in the *Managing Oracle WebCenter Enterprise Capture*.

- a. On the **General Settings** train stop, select **WebCenter Content** in the **Commit Driver** field. For this integration, it is recommended that you select **PDF Image-Only** from the **Document Output Format** field. In the **Restrict Commit to Document Profiles** field, select the document profile you created in step [Configuring Oracle WebCenter Capture For the Adapter](#).
- b. On the **Login** tab, specify settings for logging in to the Content Server instance. (The other tabs become active after you log in.) Use the following format for the Content Server URL:

```
http://Content Server host name or IP address:WebServerPort/ucm web root/  
idcplg
```

The specified Content Server user must be assigned the AFWrite role for the AFDocuments security group. It is recommended that you create a special Capture user specific to the Managed Attachments solution for this purpose to ensure regular users do not gain write access to the AFDocuments security group, which is reserved for the Managed Attachments solution. For details about the AFDocuments group, see [Configuring Document Security](#).

- c. On the **Check-In** tab, choose **Assign Values Dynamically** and **By Field Mappings** fields. Also specify how to name documents in the **Document Title** field.

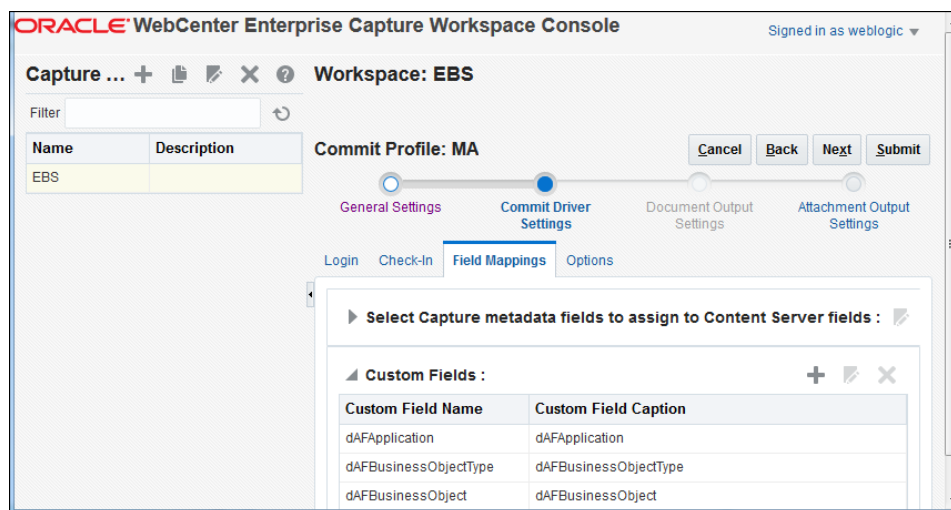
- d. On the **Field Mappings** tab, click the **Add** icon in the Custom Fields table and add the following custom fields, as shown in [Configuring Oracle WebCenter Capture For the Adapter](#):

- dAFApplication
- dAFBusinessObjectType
- dAFBusinessObject

The custom fields you added now display on the **Field Mappings** tab. Map these custom fields to the corresponding metadata fields you created in step 2, as they are required to attach the new Content Server document to the business application entity. Also map other Capture fields whose values you want written to the Content Server fields.

- e. On the **Options** tab, specify additional settings.

**Figure 6-16 WebCenter Content, Field Mappings**



## 6.9.4 Configuring Content Server for WebCenter Enterprise Capture via Adapter

Follow these steps to configure attachment scanning on the Content Server side:

1. On Content Server, edit the following configuration variables for Oracle WebCenter Enterprise Capture, if you have not done so. See [Configuring Managed Attachments Settings](#).
  - ODDCURLPath
    - ODDCURLPath 12c oraclecapture://  
CaptureWorkspace=CaptureWorkspace&CaptureDriver=CAPTURE\_IMPORT\_DRIVER&C  
aptureSource=Import Source
    - ODDCURLPath 11g http://capture\_host:port/dc-client
  - ODDCSaveAction *ODDC Save Action*
  - AdapterAppScanBtnVisible true

2. Restart Content Server.
3. On Content Server, configure document classification and scan types.
  - a. From the Administration tray in Content Server, click the **Admin Applets** link.
  - b. Select the **Configuration Manager** applet. The Configuration Manager displays.
  - c. Click the **Views** tab, select the appropriate document classification view from the alphabetical list (**EBSDocClassView** for Oracle E-Business Suite, **PSFTDocClassView** for Oracle PeopleSoft, or **UniversalDocClassView** for Enterprise Application Adapter Framework), and click **Edit Values**.
4. In the **Edit Values** dialog box, click **Add** and specify the document classification and the corresponding client profile. Note that documentClassification entries must be unique, but a client profile can be used multiple times. Click **Close**.
5. From the Options menu, choose **Publish schema** to publish the data.

## 6.9.5 Testing the Oracle WebCenter Enterprise Capture via Adapter Configuration

Follow these steps to test the configuration as an end-user. For details about scanning using Oracle WebCenter Enterprise Capture as an end user, see *How do I scan using Oracle WebCenter Enterprise Capture?* in the *Using the Application Adapters for Oracle WebCenter*.

1. Refresh the Managed Attachments results page. You should see a Scan button beside the New button.
2. Click **Scan**. On the Scan Document page, select a document classification and security group, and click **Scan Document**. A popup window opens where in you can specify the username, password, and the Oracle WebCenter Enterprise Capture Server details. Enter the following in the **Server** field: `http://<capture_host>:<capture-port>`.  
  
Notice that the URL reflects the settings you specified to run the client. It also passes the client profile, scan action (1 = Scan and 2 = Import), and metadata containing the Oracle E-Business Suite or Oracle PeopleSoft entity values.
3. Within the Oracle WebCenter Enterprise Capture client, review, index, and release the document's batch.
4. Return to the Managed Attachments page and click **Refresh**. The newly scanned document or imported scanned file should be displayed in the list. (It may take a few minutes to display.)

## 6.10 Configuring Oracle Distributed Document Capture

Following topics provide information on how to configure Oracle Distributed Document Capture:

- [About Document Scanning Using Oracle Distributed Document Capture](#)
- [Oracle Distributed Document Capture and Related Components Requirements](#)
- [Configuring Oracle Distributed Document Capture For the Adapter](#)
- [Configuring Content Server for Distributed Document Capture Via Adapter](#)

- [Testing the Oracle Distributed Document Capture Via Adapter Configuration](#)



**Note:**

For installation requirements specific to Oracle Distributed Document Capture use with this adapter, see [Oracle Distributed Document Capture and Related Components Requirements](#).

## 6.10.1 About Document Scanning Using Oracle Distributed Document Capture

The Oracle Distributed Document Capture application enables an application such as the adapter to direct it to scan a document and pass in document index values. This allows users to scan documents or import scanned image files from the Managed Attachments page and attach them to the selected business application record.

When configured for the adapter, document scanning works as follows:

- A **Scan** button is added to the Managed Attachments page. The user clicks the button, and selects options such as a **document classification**, which is assigned to an Oracle Distributed Document Capture scan profile. For example, the user might select a classification of *Identity Documents* to scan a photocopy of a driver's license or passport. (An Oracle Distributed Document Capture scan profile specifies scanning, importing, and indexing settings.) The user also specifies whether the document should be shared, and if so the user specifies a security group for the shared document from those to which the user has access.
- When the user clicks the **Scan Document** button, Oracle Distributed Document Capture's remote client launches in a new window, automatically authenticates and logs in the user (if configured), and passes in parameters such as the scan profile to use and business application entity values for later attachment.
- Within the Oracle Distributed Document Capture client, the user reviews the document, makes changes as needed, completes any index fields configured in the scan profile, then sends the batch. Sending the batch commits the new document to Content Server using a commit profile specified for the scan profile. (A Capture/Content Server commit profile specifies connection information and field mappings between Capture and Content Server metadata fields.)
- Upon successful sending, the user returns to the Managed Attachments page and refreshes the display to view the newly scanned document or imported scanned image file.

## 6.10.2 Oracle Distributed Document Capture and Related Components Requirements

Following are the requirements for implementing scanning and importing functionality with Oracle Distributed Document Capture. For complete system requirements, such as browsers, see the configuration and certification information at the following location:

<http://www.oracle.com/technetwork/middleware/webcenter/content/documentation/documentation-155348.html>

 **Note:**

The requirements listed in this section apply only if using Oracle Distributed Document Capture for optional scanning functionality.

Requirements include:

- Oracle Distributed Document Capture Release 10.1.3.5.1 or later, including the Oracle UCM 11g Commit Driver, which is provided for installation in this release. The Oracle UCM 11g Commit Driver is required to commit documents from Oracle Distributed Document Capture to Oracle WebCenter Content Server.
- Internet Explorer 6 or above for end-users.

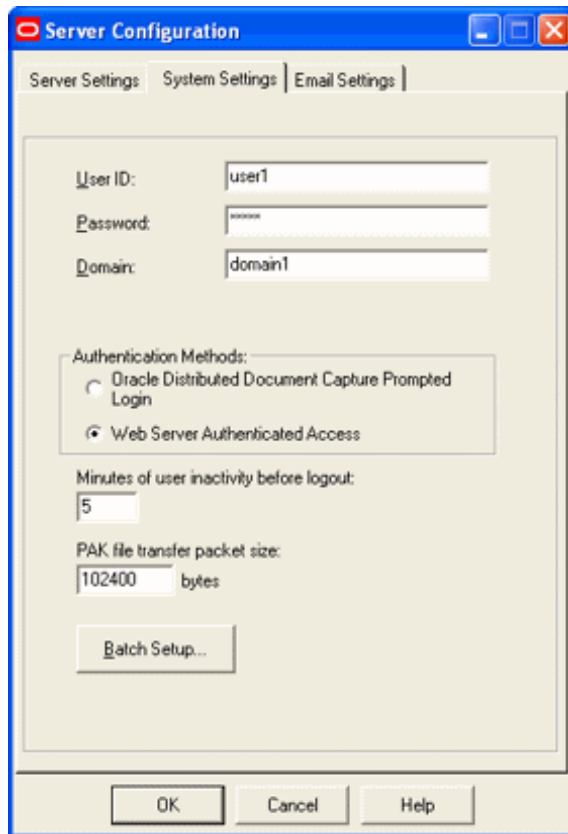
## 6.10.3 Configuring Oracle Distributed Document Capture For the Adapter

Follow these steps to configure attachment scanning on the Oracle Distributed Document Capture side.

1. Optionally set Oracle Distributed Document Capture for automatic login.

On the **System Settings** tab of the Distributed Document Capture Server Configuration application shown in [Figure 6-17](#), select **Web Server Authenticated Access** from the Authentication Methods options. This setting enables the client to launch automatically without users needing to log in. For details, see the section on authentication in the *Installation Guide for Oracle Distributed Document Capture*.

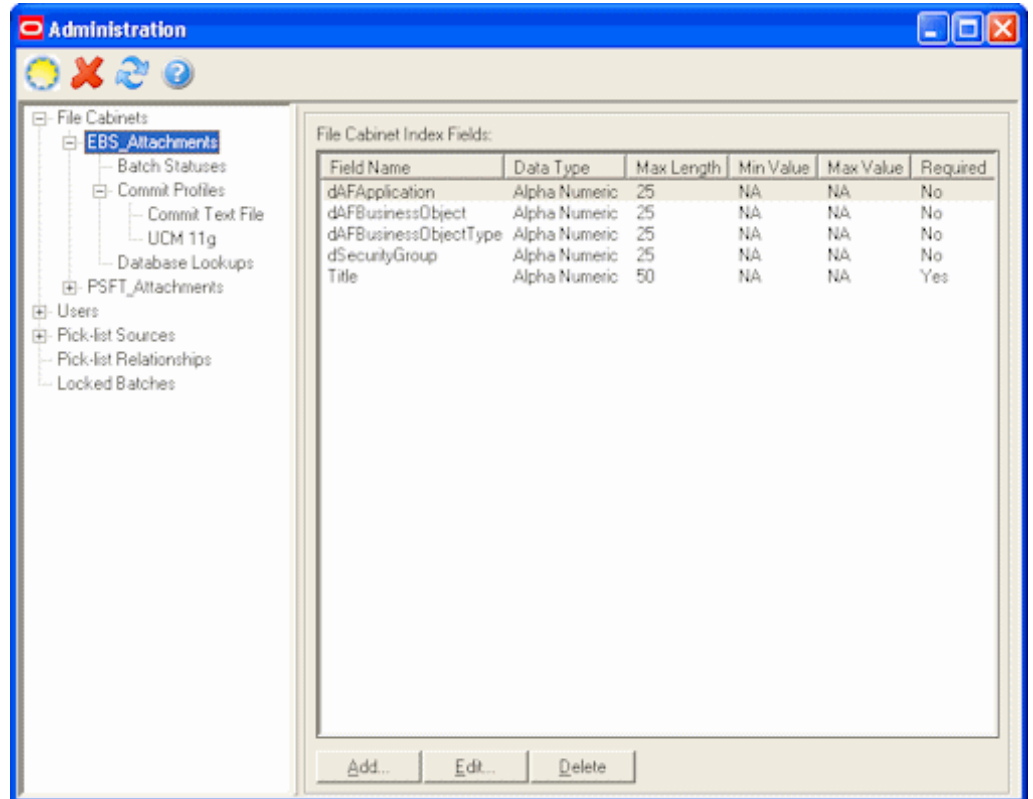
**Figure 6-17 Distributed Document Capture Server Configuration, System Settings Tab**



2. In Capture Administration, add index fields to a selected file cabinet for capturing values for new documents, as shown in [Figure 6-18](#). For details, see the section on Capture Administration in the *Administrator's Guide for Oracle Distributed Document Capture*.
  - a. Create index fields for values to save with attached documents on the Content Server. For example, you might configure a Doc Type pick-list index field for users to select from standard document types.
  - b. Create the following alphanumeric index fields to contain the business application entity values and required fields:
    - dAFApplication
    - dAFBusinessObjectType
    - dAFBusinessObject
    - dSecurityGroup
    - Title

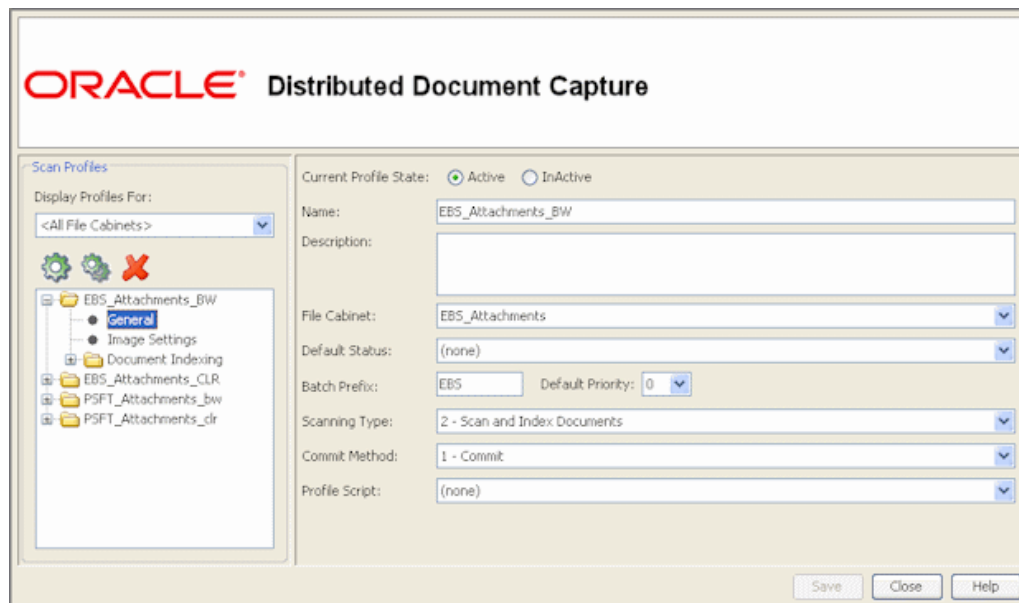


Figure 6-18 Capture Administration, Index Fields



3. In Oracle Distributed Document Capture's Profile Administration, create a scan profile, as shown in Figure 6-19. You later associate this scan profile with one or more document classifications, so that when a user selects a classification, the associated scan profile's settings are used. For details, see the section on scan profiles in the *Administrator's Guide for Oracle Distributed Document Capture*.
  - a. On the General pane, select **2 - Scan and Index Documents** in the **Scanning Type** field. This scanning type includes indexing, and scans or imports pages into a single document in a batch. Specify a file cabinet and batch prefix.

**Figure 6-19 Scan Profiles, Oracle Distributed Document Capture Profile Administration**

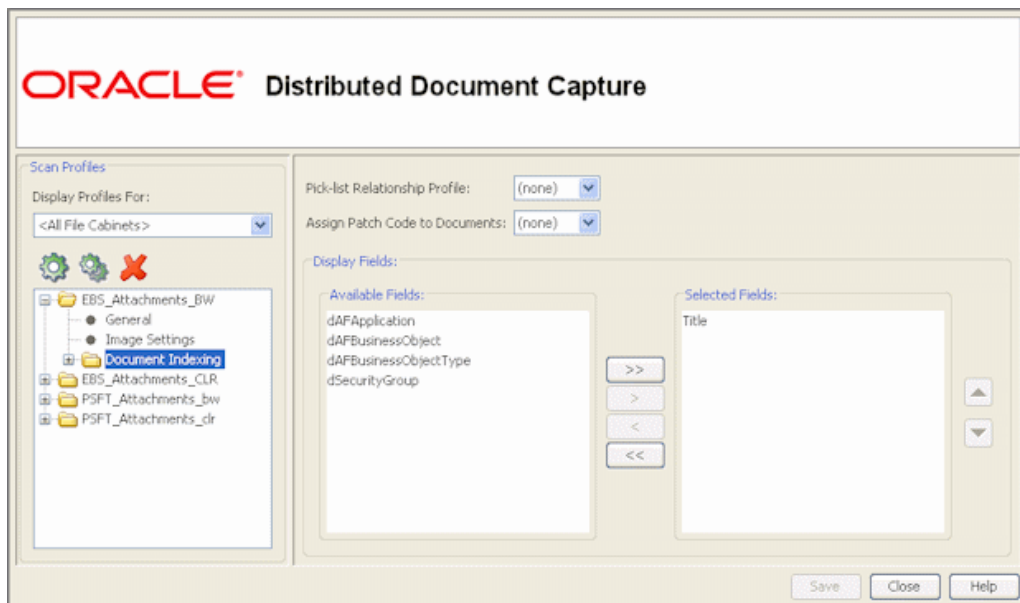


- b. On the **Document Indexing** pane, move all fields to display to users to the Selected Fields box. It is recommended that you display the Title field for users to enter, and make the field required.

 **Note:**

Typically, you would not select the business application entity fields (dAFBusinessObject, for example) for display to users. If you choose to display them, lock them on the Field Properties pane to prevent users from changing their values.

**Figure 6-20 Scan Profiles, Oracle Distributed Document Capture Profile Administration**

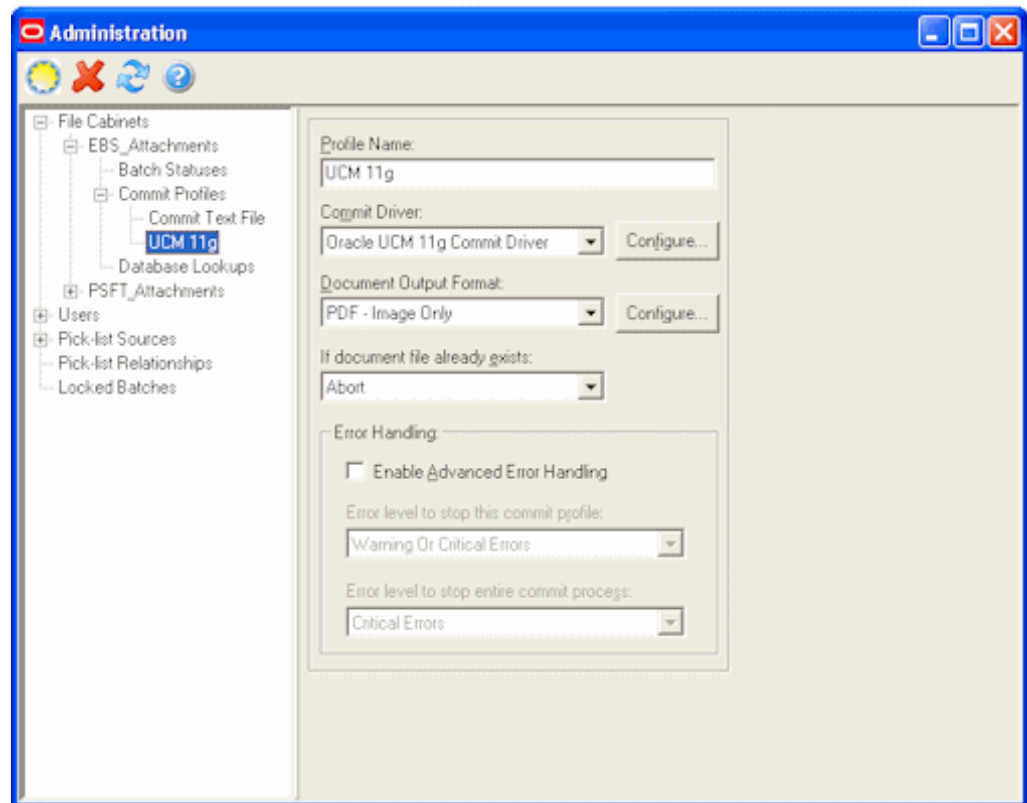


- c. On the Field Properties, Auto Populate, and Database Lookup panes, configure any pick-lists, database lookups, or autopopulating needed for indexing. Save the scan profile.
4. In Capture Administration, create an Oracle UCM 11g (Content Server) commit profile to commit the scanned or imported documents to Content Server when users send a completed batch.

This commit profile specifies how to connect to the Content Server and how the business application and Capture values are passed to the Content Server. For information about creating Content Server commit profiles, see the section on commit profiles in the *Administrator's Guide for Oracle Distributed Document Capture*.

- a. Select **Oracle UCM 11g Commit Driver** in the Commit Driver field. For this integration, it is recommended that you select **PDF - Image Only** in the Document Output Format field. Click the **Configure** button adjacent to the Commit Driver field.

**Figure 6-21 Commit Profile Settings**



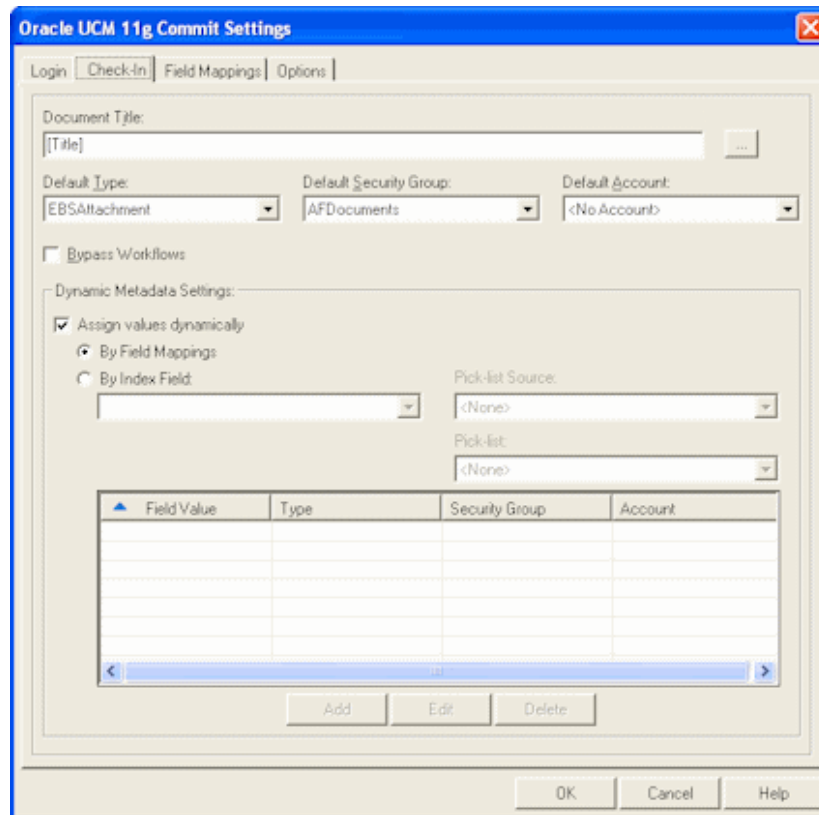
- b. On the **Login** tab, specify settings for logging in to the Content Server instance. (The other tabs become active after you log in.) Use the following format for the Content Server URL:

```
http://Content Server host name or IP address:WebServerPort/ucm web root/
idcplg
```

The specified Content Server user must be assigned the AFWrite role for the AFDocuments security group. It is recommended that you create a special Capture user specific to the Managed Attachments solution for this purpose to ensure regular users do not gain write access to the AFDocuments security group, which is reserved for the Managed Attachments solution. For details about the AFDocuments group, see [Configuring Document Security](#).

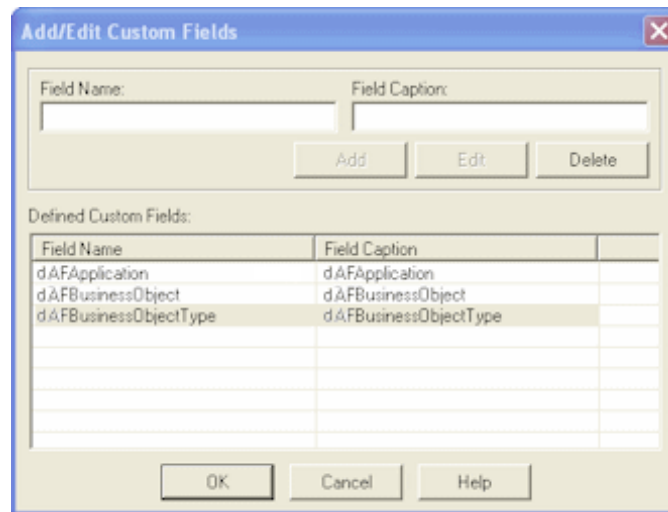
- c. On the **Check-In** tab, choose **Assign values dynamically** and **By Field Mappings** fields, as shown in [Figure 6-22](#). Specify how to name documents in the **Document Title** field.

**Figure 6-22 Capture Administration, Check-In for Content Server Commit Settings**



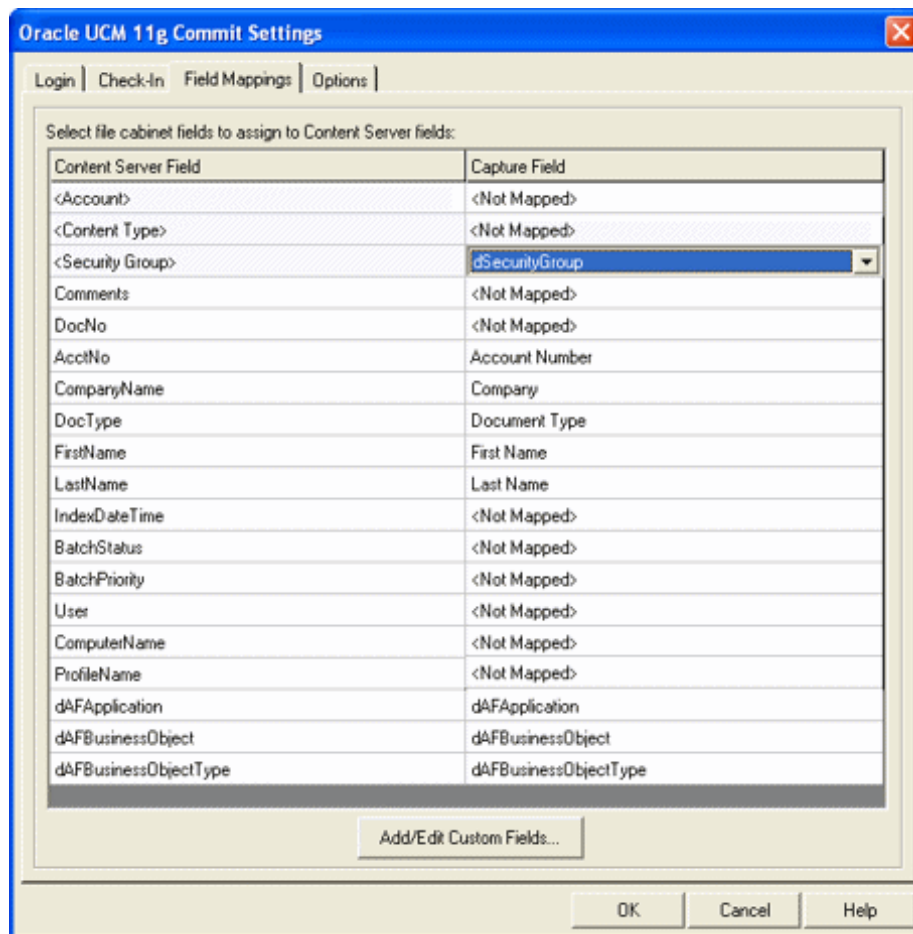
- d. On the **Field Mappings** tab, click the **Add/Edit Custom Fields** button, and add the following custom fields in the Add/Edit Custom Fields dialog box shown in [Figure 6-23](#):
- dAFApplication
  - dAFBusinessObjectType
  - dAFBusinessObject

**Figure 6-23 Capture Administration, Add/Edit Custom Fields**



Click **OK**. The custom fields you added now display on the **Field Mappings** tab shown in [Figure 6-24](#). Map these custom fields to the corresponding index fields you created in step 2, as they are required to attach the new Content Server document to the business application entity. Also map other Capture fields whose values you want written to Content Server fields. Click **OK**.

- e. Activate the business application-Content Server commit profile by clicking **Commit Profiles** from the Administration tree and selecting the **Active** check box for the commit profile.

**Figure 6-24 Capture Administration, Field Mappings for Content Server Commit Settings**

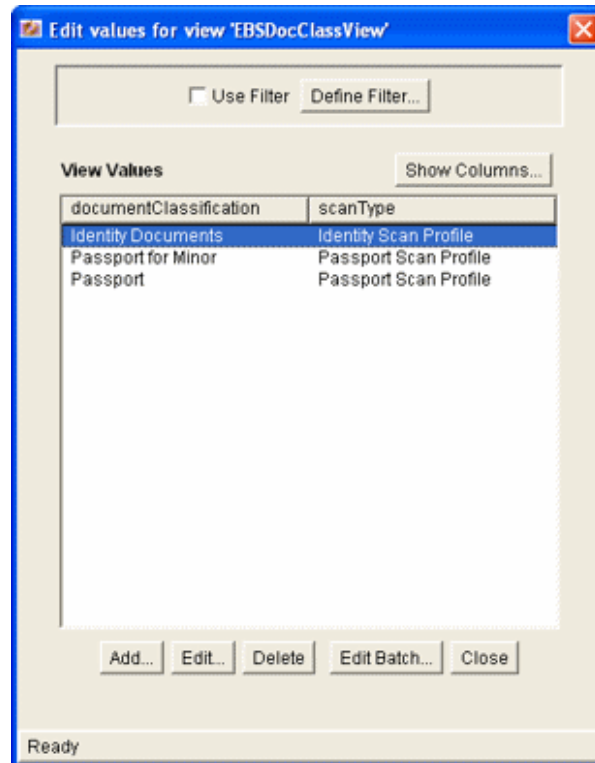
## 6.10.4 Configuring Content Server for Distributed Document Capture Via Adapter

Follow these steps to configure attachment scanning on the Content Server side.

1. On Content Server, edit the following configuration variables for Oracle Distributed Document Capture, if you have not done so. See [Configuring Managed Attachments Settings](#).
  - `ODDCURLPath http://  
CaptureWorkspace=CaptureWorkspace&CaptureDriver=CAPTURE_IMPORT_DRIVER&CaptureSource=Import Source`
  - `ODDCScanAction ODDC Scan Action`
  - `AdapterAppScanBtnVisible true`
2. Restart Content Server.
3. On Content Server, configure document classification and scan types.
  - a. From the Administration tray in Content Server, click the **Admin Applets** link.
  - b. Select the Configuration Manager applet. The Configuration Manager displays.

- c. Click the Views tab, select the appropriate document classification view from the alphabetical list (**EBSDocClassView** for Oracle E-Business Suite, **PSFTDocClassView** for Oracle PeopleSoft, or **UniversalDocClassView** for Enterprise Application Adapter Framework), and click **Edit Values**.

**Figure 6-25 Edit Values**



4. In the Edit Values dialog box, click **Add** and add document classifications and their corresponding scan profile. Note that documentClassification entries must be unique, but a scan profile can be used multiple times. Click **Close** when done.
5. From the Options menu, choose **Publish schema** to publish the data.

## 6.10.5 Testing the Oracle Distributed Document Capture Via Adapter Configuration

Follow these steps to test the configuration as an end-user. For more information, see *How do I scan using Oracle Distributed Document Capture?* in the *Using the Application Adapters for Oracle WebCenter*.

1. Refresh the Managed Attachments results page. You should see a Scan button beside the New button.
2. Click the **Scan** button. In the Scan Document page, select a document classification and security group, and click **Scan Document**. The Oracle Distributed Document Capture client launches.



 **Note:**

You can attach one document only via scanning or importing at a time.

Notice that the URL reflects the settings you specified to run the client. It also passes the scan profile, scan action (1 = Scan and 2 = Import), and index data containing the Oracle E-Business Suite or Oracle PeopleSoft entity values.

3. Within the Oracle Distributed Document Capture client, review, index, and send the document.

 **Note:**

If you decide to cancel a document scan or import, you must close the Oracle Distributed Document Capture window and return to the Managed Attachments page and perform a new scan or import. This ensures that index values are properly set for attachments.

4. Return to the Managed Attachments page and click **Refresh**. The newly scanned document or imported scanned image file should be displayed in the list. (It may take a few minutes to display.)

## 6.11 Testing the Managed Attachments Solution

To test functionality, you can launch the Managed Attachments solution from the Command Driver page instead of a business application.

Follow these steps to use the command driver.

1. Display the command driver page using the following URL form:

```
http://IPM Host:IPM Port/imaging/faces/Driver.jspx
```

Note that you must log in to this page as the user set up in the CSF Credential for Managed Attachments (for example, weblogic), as described in [Configuring a CSF Credential for Managed Attachments](#).

2. In the command driver options that display, complete the **Input Parameters** and **Request Parameters** fields. In the **UserName** field, enter the name of a valid user already configured in Content (for example, `operations`). See examples in [Figure 6-26](#). Leave the **ConversationId** field blank.

**Figure 6-26 Example Parameters for the Managed Attachments Driver Page**

The screenshot displays the Oracle WebCenter Content interface for the 'Command Driver'. It includes a navigation bar with 'Command Driver', 'Conversation Info', and 'Cache Info'. The main content area is divided into several sections: 'Input Parameters' with fields for SolutionNamespace (InvoiceProcessing), CommandNamespace (StartInvoiceProcessing), Username (weblogic), and ConversationId; 'Request Parameters' with a list of Key/Value pairs; an 'Execute Request' button; 'Execute Response' with fields for ConversationId (9ba5bebd-be3a-40b9-895b-a08ebe005f5a), Error Message, and Error Code; and 'Response Commands'.

3. Click the **Execute Request** button.  
A conversation starts, as indicated by entries in the **conversationId** and other response fields.
4. Under **Response Commands**, click the **Execute Response** button.  
A new browser window opens and displays the Managed Attachments page.

 **Note:**

Drivers.aspx is not available in the UCM Web Service implementation of the Managed Attachments solution. You must use SOAPUI for testing the functionality. More information is available at:  
[How to Setup and Test Webcenter Content 12.2.1.1.0 AXF Managed Attachments \(Doc ID 2170085.1\)](#).

## 6.12 Configuring Content Server Logging

For information about Content Server logging, see Introduction to Managing Content Server Log Files in the *Administering Oracle WebCenter Content*.

## 6.13 Uninstalling Adapter Components on Content Server

Follow these steps to disable and then uninstall the following adapter components on the Content Server.

- AppAdapterCore
- AppAdapterEBS

- AppAdapterPSFT
- AppAdapterUniversal

For details about these components, see [Enabling Content Server Components](#).

1. Log in to Content Server as an administrator.
2. Choose **Admin Server** from the Administration menu.  
The Content Admin Server page displays.
3. Select the name of the Content Server instance from which to uninstall the component.  
The Content Admin Server *<instance\_name>* page displays.
4. Click **Component Manager**.  
The Component Manager page displays.
5. Select an adapter component in the Enabled Components list and click **Disable**.
6. Repeat step 5, selecting and disabling the remaining adapter components.
7. Click **Start/Stop Content Server**.  
The Content Admin Server *<instance\_name>* displays.
8. Click **Restart**.
9. Click **Component Manager**.  
The Component Manager displays.
10. Select an adapter component in the Uninstall Component field and click **Uninstall**.  
Click **OK** to confirm uninstalling the component.
11. Repeat step 10, uninstalling the remaining adapter components.
12. Select the link to return to the Component Manager.  
The Component Manager page displays.
13. Click **Start/Stop Content Server**.  
The Content Admin Server *<instance\_name>* page displays.
14. Restart Content Server to apply the changes.

# A

## BPEL Imaging Solution Reference

You can configure AXF, Oracle E-Business Suite, and Oracle PeopleSoft configuration tables for the BPEL Imaging solution. You can run the AXF commands and also use web user interface tools such as the Task List and Task Viewer.

This appendix covers the following topics:

- [AXF Tables For the BPEL Imaging Solution](#)
- [AXF User Components for the BPEL Imaging Solution](#)
- [AXF Commands for the BPEL Imaging Solution](#)
- [Oracle E-Business Suite Forms Tables For the BPEL Imaging Solution](#)
- [Oracle PeopleSoft Tables For the BPEL Imaging Solution](#)

### A.1 AXF Tables For the BPEL Imaging Solution

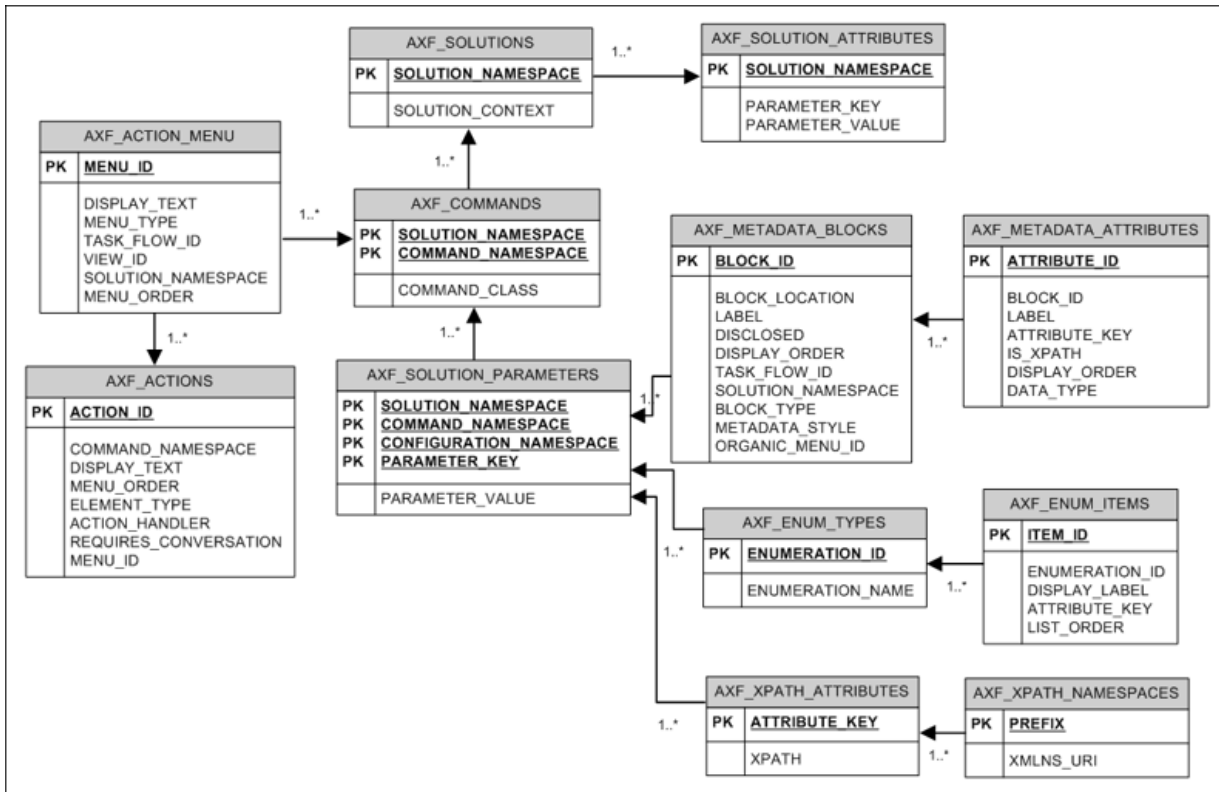
BPEL Imaging Solution provides you information on the BPEL AXF tables.

 **Note:**

If modifying AXF table values in a running system, either execute Clear DB Cache from the Driver page or restart the AXF application within the Application Server for the changes to take effect. For information about the Driver page, see Verifying the AXF for BPEL Installation and Configuration with HelloWorld in *Installing and Configuring Oracle WebCenter Content*.

The diagram that follows displays the BPEL AXF configuration tables and their relationships.

Figure A-1 BPEL AXF Configuration Tables (BPEL Imaging Solution)



AXF Table	Description
<a href="#">AXF_SOLUTIONS Table</a> <a href="#">AXF_SOLUTION_ATTRIBUTES Table</a>	Define AXF solutions, and general parameters for infrastructure, services, and solutions.
<a href="#">AXF_COMMANDS Table</a>	Define AXF commands within solutions.
<a href="#">AXF_SOLUTION_PARAMETERS Table</a>	Define parameters for AXF commands and AXF user interface components.
<a href="#">AXF_ACTION_MENU Table</a> <a href="#">AXF_ACTIONS Table</a>	Define task action pane itself and links in the pane.
<a href="#">AXF_METADATA_BLOCKS Table</a> , <a href="#">AXF_METADATA_ATTRIBUTES Table</a>	Define optional sections, such as Summary, Comments, and dynamic data tables in the Task Viewer.
<a href="#">AXF_ENUM_TYPES Table</a> , <a href="#">AXF_ENUM_ITEMS Table</a>	Define enumeration pickers and their values.
<a href="#">AXF_XPATH_ATTRIBUTES Table</a> , <a href="#">AXF_XPATH_NAMESPACES Table</a>	Define XPATH attributes for payload elements.

## A.1.1 AXF\_SOLUTIONS Table

The AXF\_SOLUTIONS table defines the solutions used by AXF. It links to the [AXF\\_COMMANDS Table](#) through the SOLUTION\_NAMESPACE column.



### Column Description

**Table A-1 Column Description for AXF\_SOLUTIONS Table**

Column	Description
SOLUTION_CONTEXT	Defines the JNDI name of the AXF solution implementation. (Currently, AxfCommandMediator is the only solution implementation.)
SOLUTION_NAMESPACE	Defines the AXF solution name.

### Example Implementation

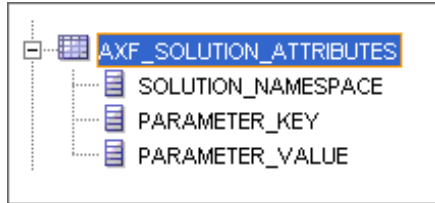
This example table shows the AXF solutions defined. Each of the solutions uses AxfCommandMediator as its solution implementation.

**Table A-2 Example AXF\_SOLUTIONS Table**

SOLUTION_NAMESPACE	SOLUTION_CONTEXT
InvoiceProcessing	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
AccountDistributionApproval	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
SupplierMaintenance	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
RequestInvoiceInformation	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
AccountDistribution	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
InvoiceApproval	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
Rescan	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

## A.1.2 AXF\_SOLUTION\_ATTRIBUTES Table

This table defines general attributes for use by infrastructure, services, or solutions. For example, use this table to define error message addresses, connections, and conversation timeout settings.



### Column Description

**Table A-3 Column Description for AXF\_SOLUTION\_ATTRIBUTES Table**

Column	Description
SOLUTION_NAMESPACE	Specifies the solution namespace that uses this parameter.
PARAMETER_KEY	Name of the parameter. Used when retrieving the parameter value from the database. Parameters include: <ul style="list-style-type: none"> <li>BPEL_CONNECTION: Identifies the BPEL connection to use.</li> <li>CONNECTION_PROVIDER: Defines the connection (BPEL or custom). If specifying a BPEL connection, this value is <i>AxfWorkflowServiceModule</i>.</li> <li>ConversationTimeoutSeconds: Specifies the length of time for which a ConversationID (cid) is valid. The default is 43200 seconds of inactivity.</li> <li>USE_AUTOTASK_LOCKING: Specifies if autotask locking is enabled (TRUE) or disabled (FALSE). Enabling autotask locking can prevent collisions that may occur when multiple users acquire tasks in Autotask mode. See <a href="#">Configuring Autotask Locking</a>.</li> <li>USERNAME_PASS_THROUGH: When FALSE, allows the authenticated Oracle WebLogic Server user to perform tasks, such as BPEL tasks, rather than the user passed from Oracle E-Business Suite or Oracle PeopleSoft (TRUE, default). See <a href="#">Allowing Oracle WebLogic Server/ Business Application Users to Perform Tasks</a>.</li> <li>TASKLIST_RANGESIZE: Specifies the number of tasks to return in the Task List. For example, you might change the number from 25 (default) to 10 tasks.</li> </ul>
PARAMETER_VALUE	Value of the parameter.

### Example Implementation

This example table sets solution attributes for the Invoice Processing solution.

**Table A-4 Example AXF\_SOLUTION\_ATTRIBUTES Table**

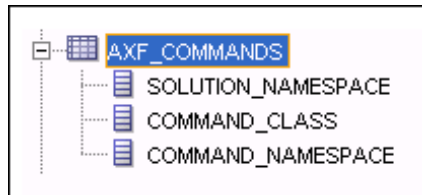
SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
InvoiceProcessing	BPEL_CONNECTION	axfconnection

**Table A-4 (Cont.) Example AXF\_SOLUTION\_ATTRIBUTES Table**

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
InvoiceProcessing	CONNECTION_PROVIDER	oracle.imaging.axf.servicemodule.s.bpel.workflow.AxfWorkflowServiceModule
InvoiceProcessing	USE_AUTOTASK_LOCKING	TRUE
InvoiceProcessing	TASKLIST_RANGESIZE	10

### A.1.3 AXF\_COMMANDS Table

Use this table to define AXF commands and their java classes for each solution. Note that you configure each command's parameters in the [AXF\\_SOLUTION\\_PARAMETERS Table](#).



#### Column Description

**Table A-5 Column Description for AXF\_COMMANDS Table**

Column	Description
SOLUTION_NAMESPACE	The name of the solution, as defined in the <a href="#">AXF_SOLUTIONS Table</a> .
COMMAND_NAMESPACE	Defines the unique name of the command within the solution.
COMMAND_CLASS	The fully qualified class name in which the command is defined. This class is loaded and the execute() method representing the command is executed. For information about a specific task, see the specific task listed in <a href="#">AXF Commands for the BPEL Imaging Solution</a> .

#### Example Implementation

This example shows commands defined for the Invoice Processing solution.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing



**Table A-6 Example AXF\_COMMANDS Table**

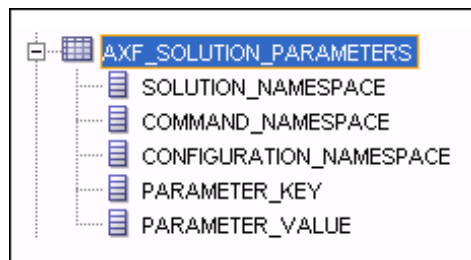
<b>COMMAND_CLASS</b>	<b>COMMAND_NAMESPACE</b>
oracle.imaging.axf.commands.bpel.AutotaskCommand	AutoOpenTask
oracle.imaging.axf.commands.bpel.ReleaseTaskCommand	ReleaseTask
oracle.imaging.axf.commands.bpel.ReleaseTaskCommand	SkipTask
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AccountDistributionComplete
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AssignProcessingGroupComplete
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	CompleteInvoice
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	DeleteInvoice
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	DuplicateInvoice
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	Hold
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	InvoiceApprovalComplete
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	RequestInformationComplete
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	RescanComplete
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	SpecialistExceptionComplete
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	SupplierMaintenance
oracle.imaging.axf.commands.bpel.CompleteTaskCommand	SupplierMaintenanceComplete
oracle.imaging.axf.commands.bpel.OpenTaskCommand	OpenTask
oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	RetrieveUserList
oracle.imaging.axf.commands.bpel.UpdateTaskCommand	AttachSupplemental
oracle.imaging.axf.commands.bpel.UpdateTaskCommand	SaveInvoice
oracle.imaging.axf.commands.system.RedirectCommand	AccountDistributionEdit
oracle.imaging.axf.commands.system.RedirectCommand	AssignProcessingGroupEdit
oracle.imaging.axf.commands.system.RedirectCommand	EditComments

**Table A-6 (Cont.) Example AXF\_COMMANDS Table**

COMMAND_CLASS	COMMAND_NAMESPACE
oracle.imaging.axf.commands.system.RedirectCommand	InvoiceApprovalEdit
oracle.imaging.axf.commands.system.RedirectCommand	RequestInformationEdit
oracle.imaging.axf.commands.system.RedirectCommand	RescanEdit
oracle.imaging.axf.commands.system.RedirectCommand	SearchIPM
oracle.imaging.axf.commands.system.RedirectCommand	SpecialistExceptionEdit
oracle.imaging.axf.commands.system.RedirectCommand	StartInvoiceProcessing
oracle.imaging.axf.commands.system.RedirectCommand	SupplierMaintenanceEdit
oracle.imaging.axf.commands.system.TerminateConversationCommand	TerminateConversation

## A.1.4 AXF\_SOLUTION\_PARAMETERS Table

This table defines command parameters for the solution, AXF commands, and AXF user interface components.



### Column Description

**Table A-7 Column Description for AXF\_SOLUTION\_PARAMETERS Table**

Column	Description
SOLUTION_NAMESPACE	Identifies the solution namespace, as defined in the <a href="#">AXF_SOLUTIONS Table</a> .
COMMAND_NAMESPACE	Specifies the command name, as defined in the <a href="#">AXF_COMMANDS Table</a> .

**Table A-7 (Cont.) Column Description for AXF\_SOLUTION\_PARAMETERS Table**

Column	Description
CONFIGURATION_NAMESPACE	Used to implement the command. Specify the complete package name of the implementation class. This namespace path provides the physical Java class to instantiate. The namespace also differentiates commands within the same solution namespace.
PARAMETER_KEY	Specifies the parameter key to use in the AXF command. For parameter details, see the specific <a href="#">command</a> or <a href="#">web tool</a> : User interface components: <ul style="list-style-type: none"> <li>• Task List Web Tool</li> <li>• Task Viewer Web Tool</li> <li>• Enumeration Picker Web Tool</li> <li>• Identity Picker Web Tool</li> <li>• Comments</li> </ul> AXF commands: <ul style="list-style-type: none"> <li>• Open Task Command</li> <li>• Autotask Command</li> <li>• Release Task Command</li> <li>• Complete Task Command</li> <li>• Redirect Command</li> <li>• Update Task Command (BPEL)</li> <li>• Update Task From Procedure Command</li> <li>• Terminate Conversation Command</li> <li>• Validate Task Command</li> </ul>
PARAMETER_VALUE	Specifies the value of the parameter key. (For parameter details, see the specific AXF command or web tool.) If the value has an XPATH: prefix, the attribute value comes from the <a href="#">AXF_XPATH_ATTRIBUTES Table</a> .

**Example Implementation**

This example defines the StartInvoiceProcessing command for the Invoice Processing solution. The first row specifies that the task list be displayed, using the RedirectCommand and corresponding URL. The remaining rows call the task list (in the CONFIGURATION\_NAMESPACE column) and define its behavior.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-8 Example AXF\_SOLUTION\_PARAMETERS Table for StartInvoiceProcessing Command**

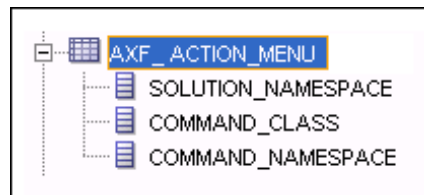
COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
StartInvoiceProcessing	oracle.imaging.axf.commands.bpel.R edirectCommand	REDIRECT_URL	taskflow://WEB-INF/ taskflows/axf-tasklist- tfd.xml#axf-tasklist-tfd
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Task List	CMD_OPEN_TASK _BUTTON	OpenTask

**Table A-8 (Cont.) Example AXF\_SOLUTION\_PARAMETERS Table for StartInvoiceProcessing Command**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Task List	CMD_AUTO_TASK_BUTTON	AutoOpenTask
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Task List	DEFAULT_VIEW	(null)
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Task List	NO_OF_LINES	20
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Task List	SHOW_INBOX	FALSE
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Task List	CONNECTION_NAME	default
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Task List	VIEW_LIST	North Invoice Processing Group, South Invoice Processing Group, East Invoice Processing Group, West Invoice Processing Group, My Holds, Exceptions

## A.1.5 AXF\_ACTION\_MENU Table

Use this table to insert and customize an action menu on an AXF web page such as the Task Viewer or Task List page. A common use is to display a Task Actions pane in the Task Viewer for users to click action links related to the displayed task, as shown in [Figure A-2](#). Use the [AXF\\_ACTIONS Table](#) to define a specified menu's actions.



### Column Description

**Table A-9 Column Description for AXF\_ACTION\_MENU Table**

Column	Description
MENU_ID	Specifies a primary key to the <a href="#">AXF_ACTIONS Table</a> , identifying the menu in which to place menu actions.
DISPLAY_TEXT	Specifies the pane's title (for example, <i>Task Actions</i> , <i>Shortcuts</i> , or <i>Re-Assignments</i> ).

**Table A-9 (Cont.) Column Description for AXF\_ACTION\_MENU Table**

Column	Description
MENU_TYPE	Specifies where on the page the menu is displayed and its type. (LEFT_SIDEBAR displays a side pane leftmost on the page.)
TASK_FLOW_ID	Specifies the active task flow with which to associate the menu. For example, to add a side menu to a task list display, specify a value of <code>axf-tasklist-tfd</code> , which identifies the page that shows the menu.
VIEW_ID	(Reserved for future use.)
SOLUTION_NAMESPACE	Identifies the AXF solution, as defined in the <a href="#">AXF_SOLUTIONS Table</a> .
MENU_ORDER	Defines the order in which the menu is displayed when multiple menus are set for display.

**Example Implementation**

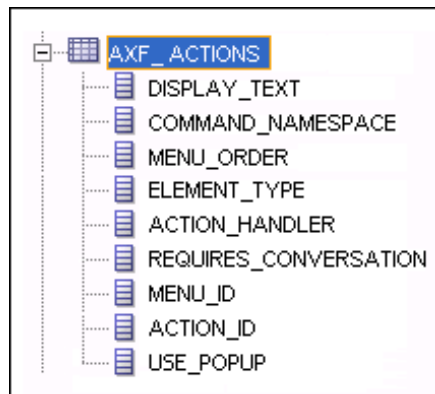
This example table implements a pane entitled *Task Actions* in the left side of the Task Viewer for the Invoice Processing solution.

**Table A-10 Example AXF\_ACTION\_MENU**

MENU_ID	DISPLAY_TEXT	MENU_TYPE	TASK_FLOW_ID	VIEW_ID	SOLUTION_NAME SPACE	MENU_ORDER
0	Task Actions	LEFT_SIDEBAR	axf-taskviewer-tfd	null	InvoiceProcessing	0

**A.1.6 AXF\_ACTIONS Table**

This table defines the task actions used in an AXF solution. You can display action menus on AXF web pages such as the Task Viewer page (see [Task Viewer Web Tool](#)) or a Task List (see [Task List Web Tool](#)). This table links to the [AXF\\_COMMANDS Table](#).



**Column Description**

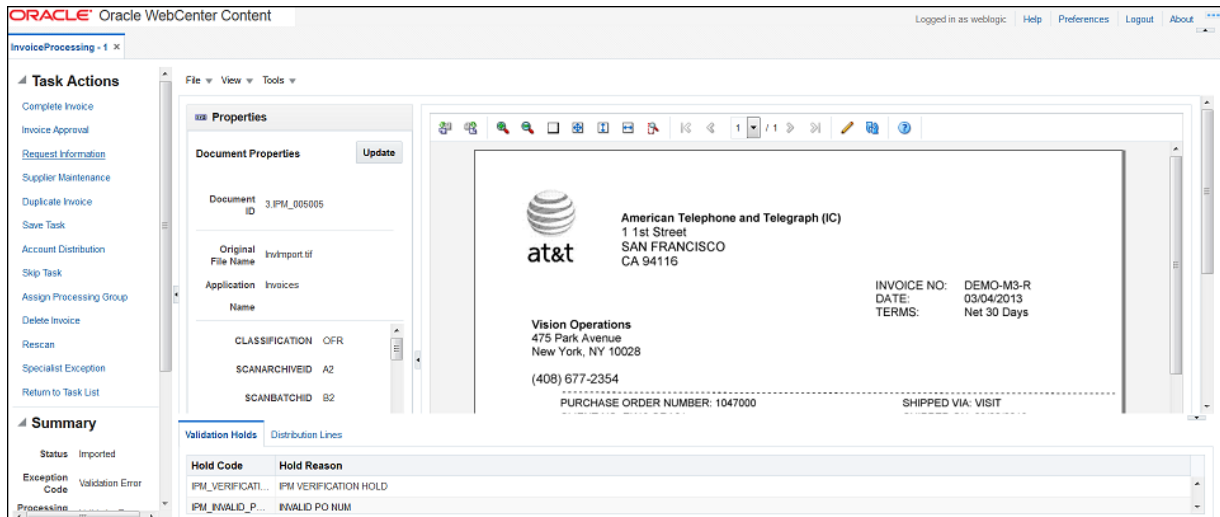
**Table A-11 Column Description for AXF\_ACTIONS Table**

Column	Description
DISPLAY_TEXT	Specifies the name of the action (link, for example) in the pane.
COMMAND_NAMESPACE	Specifies the command called as a result of the action, as defined in the <a href="#">AXF_COMMANDS Table</a> .
MENU_ORDER	Specifies the display order of the action in the pane.
ELEMENT_TYPE	Specifies how to render the action on the page, where LINK displays an HTML link.
ACTION_HANDLER	Determines who/what handles the action. COMMAND is the currently available handler. <b>Note:</b> If left (null), this value defaults to COMMAND.
REQUIRES_CONVERSATION	Specifies whether the action requires a conversation ID to already be initialized.
MENU_ID	Specifies the ID from the <a href="#">AXF_ACTION_MENU Table</a> and defines the menu in which the action is displayed.
ACTION_ID	Defines the action's unique numeric identifier.
USE_POPUP	Reserved for future use.

**Example Implementation**

The tables that follow provide an example AXF\_ACTIONS Table.

**Figure A-2 Task Viewer Page with Task Actions, Summary, and Comments Enabled**



Fields not shown in [Table A-12](#):

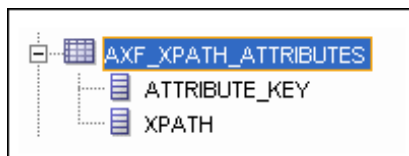
- ACTION\_HANDLER=COMMAND
- REQUIRES\_CONVERSATION=TRUE

**Table A-12 Example AXF\_ACTIONS Table**

DISPLAY_TEXT	COMMAND_NAME SPACE	MENU_ORDER	ELEMENT_TYPE	MENU_ID	ACTION_ID
Invoice Approval	InvoiceApprovalEdit	1	LINK	0	AXF_ACTIONS_SEQ.NEXTVAL
Return to Task List	ReleaseTask	0	LINK	0	AXF_ACTIONS_SEQ.NEXTVAL
Skip Task	SkipTask	0	LINK	0	AXF_ACTIONS_SEQ.NEXTVAL
Complete Invoice	CompleteTask	0	LINK	0	AXF_ACTIONS_SEQ.NEXTVAL

## A.1.7 AXF\_XPATH\_ATTRIBUTES Table

This table defines the XPATH attributes used in the AXF framework. This XPATH is mainly defined for payload elements.



### Column Description

**Table A-13 Column Description for AXF\_XPATH\_ATTRIBUTES Table**

Column	Description
ATTRIBUTE_KEY	Attribute key referenced in the Parameter Value column in the <a href="#">AXF_SOLUTION_PARAMETERS Table</a> .
XPATH	XPATH expression used to locate the value in the payload.

### Example Implementation

This example follows an XPATH attribute specified for an AssignProcessingGroupEdit command in the AXF\_SOLUTION\_PARAMETERS table. The PARAMETER\_VALUE column contains an XPATH: prefix, indicating that the attribute value comes from the AXF\_XPATH\_ATTRIBUTES table.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-14 Example AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AssignProcessingGroupEdit	oracle.imaging.axf.web.EnumerationPicker	ATTRIBUTE_NAME	XPATH:InvoiceProcessing_Group

In the AXF\_XPATH\_ATTRIBUTES table that follows, the corresponding XPATH column displays the XPATH expression used to locate the value in the payload.

**Table A-15 Example AXF\_XPATH\_ATTRIBUTES Table**

ATTRIBUTE_KEY	XPATH
InvoiceProcessing_ProcessingGroup	//task:processingGroup

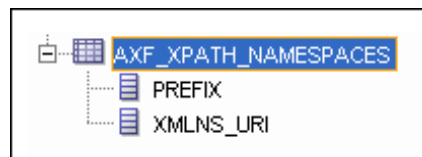
In the AXF\_NAMESPACES table that follows, the XMLNS\_URI column displays where within the XML file to locate the processingGroup task information.

**Table A-16 Example AXF\_XPATH\_NAMESPACES Table**

Prefix	XMLNS_URI
task	http://xmlns.oracle.com/bpel/workflow/task

## A.1.8 AXF\_XPATH\_NAMESPACES Table

The following table defines the namespaces used for the XPATH attributes. It links to the [AXF\\_XPATH\\_ATTRIBUTES Table](#).



### Column Description

**Table A-17 Column Description for AXF\_XPATH\_NAMESPACES Table**

Column	Description
PREFIX	The namespace prefix used in the XPATH.
XMLNS_URI	Provides a unique identifier.

### Example Implementation

**Table A-18 Example AXF\_XPATH\_NAMESPACES Table**

Prefix	XMLNS_URI
task	http://xmlns.oracle.com/bpel/workflow/task
documentContent	http://xmlns.oracle.com/imaging/axf/documentContentTypes
solution	http://xmlns.oracle.com/imaging/axf/solutionTypes
invoiceProcessing	http://xmlns.oracle.com/imaging/axf/InvoiceProcessing
xml	http://www.w3.org/XML/1998/namespace



## A.2 AXF User Components for the BPEL Imaging Solution

The following are the AXF user components for the BPEL Imaging Solution:

- [Solution Editor](#)
- [Task List Web Tool](#)
- [Task Viewer Web Tool](#)
- [Enumeration Picker Web Tool](#)
- [Identity Picker Web Tool](#)
- [Account Distribution Coding Form \(Oracle E-Business Suite Only\)](#)

### A.2.1 Solution Editor

After initial configuration of a BPEL imaging solution (using a solution accelerator or the tables described in this appendix), you can use the Solution Editor in Imaging to quickly make changes to the user interface components.

For information about the Solution Editor, see [Solution Editor Page](#) in *Administering Oracle WebCenter Content: Imaging*.

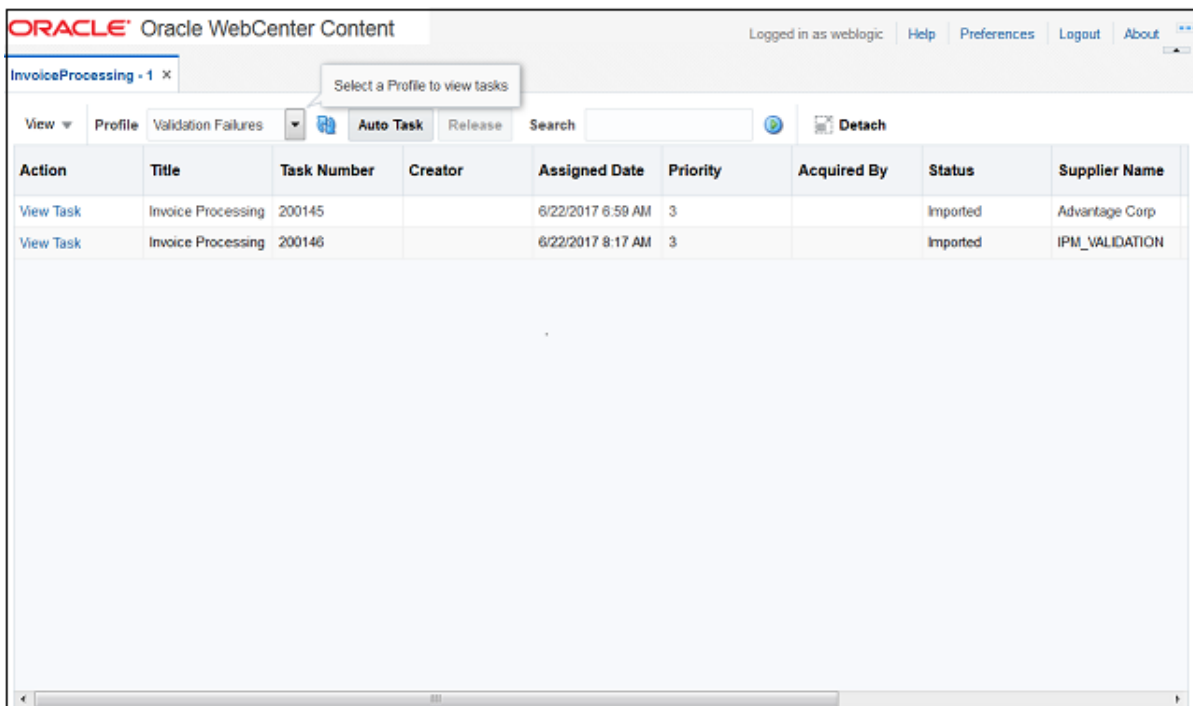
For example, use the Solution Editor for such tasks as:

- Changing the profiles (BPEL views) available to users in the Task List
- Changing the task actions available to users in the Task Viewer
- Changing the metadata items and bottom panel tabs displayed in the Task Viewer
- Specifying the enumeration values available for specified enumerations on the Enumeration Picker page

### A.2.2 Task List Web Tool

The AXF Task List web tool is a reusable web interface for displaying human workflow tasks controlled by an AXF solution.

Figure A-3 Task List Web Tool



### Task List Features

- The **Profile** list uses standard BPEL views to restrict the task list view based on user/group, BPEL Process versions, and BPEL payload attribute values. Use the BPEL Imaging Solution Editor's **General** tab to edit the profile list, assign a default profile, and identify the uses of comment blocks within the solution. For more information, see Solution Editor Page: General Tab in *Administering Oracle WebCenter Content: Imaging*.
- Users can select a task from the table by clicking its **View Task** link, which retrieves the workflow task from a specified BPEL server and process, claims it and displays it in the Task Viewer. After users complete the selected task, they return to the Task List. You can configure the number of tasks to return in the Task List at a time.
- When autotask mode is selected, the AXF solution automatically claims and opens tasks as users complete them, until all of a user's tasks have been processed or the user chooses to stop processing tasks by returning to the Task List. Users activate autotask mode by clicking **Auto Task**.
- Users can release an assigned task by clicking the **Release** button. The task is then released back into the pool of available tasks. If the user clicks Release but did not previously acquire the selected task, a message indicates that the task cannot be released.
- Users can sort tasks by clicking a column heading. They can also search for specific tasks using the **Search** field. For details, see Task List Window in *Using the Application Adapters for Oracle WebCenter*.

### Task List Parameters

**Table A-19 Task List Parameters in AXF\_SOLUTION\_PARAMETERS Table**

Parameter	Description
CMD_OPEN_TASK_BUTTON	Specify a COMMAND_NAMESPACE to execute when a user clicks the View Task link on the Task List web page.
CMD_AUTO_TASK_BUTTON	Specify a COMMAND_NAMESPACE to execute when a user clicks the Auto Task button on the Task List web page.
NO_OF_LINES	Specify the maximum number of tasks to display before displaying multiple pages. To configure the number of tasks to return in the Task List, use the TASKLIST_RANGE_SIZE parameter in the AXF_SOLUTION_ATTRIBUTES Table.
VIEW_LIST	Specify the list of views (defined in the Human workflow system) displayed to users in the Profile field.
DEFAULT_VIEW	Specify the default profile. If used with the VIEW_LIST parameter, this value must also be listed in the VIEW_LIST value.

**Example Implementation**

This example defines the StartInvoiceProcessing command for the Invoice Processing solution. The first row uses the [Redirect Command](#) to display the task list. The remaining rows define the task list's behavior.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-20 Example Task List Parameters in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
StartInvoiceProcessing	oracle.imaging.axf.commands.bpel.RedirectCommand	REDIRECT_URL	taskflow://WEB-INF/taskflows/axf-tasklist-tfd.xml#axf-tasklist-tfd
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	CMD_OPEN_TASK_BUTTON	OpenTask
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	CMD_AUTO_TASK_BUTTON	AutoOpenTask
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	DEFAULT_VIEW	(null)
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	SHOW_INBOX	FALSE
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	VIEW_LIST	North Invoice Processing Group, South Invoice Processing Group, East Invoice Processing Group, West Invoice Processing Group, My Holds, Exceptions

## A.2.3 Task Viewer Web Tool

The AXF Task Viewer web tool is a reusable web interface that displays the content associated with a Human Workflow Task. In a typical configuration, a business user

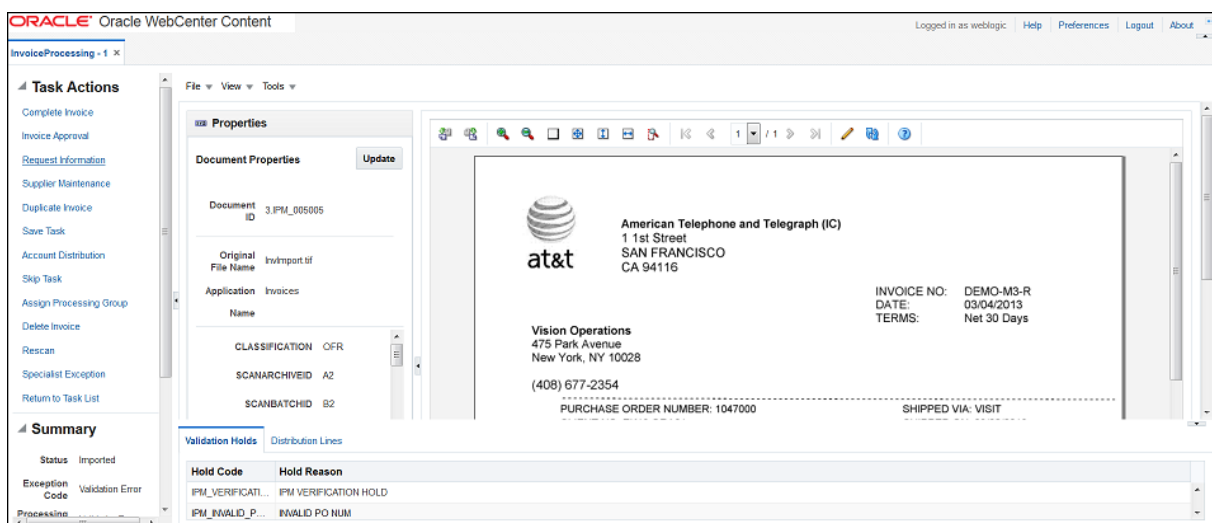
displays the Task Viewer on one monitor, and keys values shown in the image into a business application on another monitor.

Once configured, use the BPEL Imaging Solution Editor to make the following changes to the Task Viewer:

- Edit the display label of the Action menu, define the menu item order, hide or display menu items and edit menu item labels, as described in Solution Editor Page: Actions Tab in *Administering Oracle WebCenter Content: Imaging*.
- Edit the metadata block label, change the metadata item order, hide or display metadata items, edit metadata item labels, and change the dynamic data table table (bottom panel) display, as described in Solution Editor Page: Task Viewer Tab in *Administering Oracle WebCenter Content: Imaging*.

You can also customize the web page through database configuration.

**Figure A-4 Task Viewer Web Tool**



### Task Viewer Features

- Users view image documents in the Image Viewer pane, using either the basic or advanced Imaging viewer mode. The Task Viewer uses the Imaging viewer tool to render image documents.
- If configured, users can select actions in the side Task Actions pane, which invoke a solution's AXF commands. You enable the Task Actions pane in the [AXF\\_ACTION\\_MENU Table](#), configure the action links to invoke AXF commands in the [AXF\\_ACTIONS Table](#), and the commands themselves in the [AXF\\_COMMANDS Table](#). If autotask mode is selected, users disable it by returning to the Task List, typically by clicking a **Return to Task List** link in the Task Actions pane.
- If configured, users can view a Summary section that displays metadata values about the task. You configure these items for display in the [AXF\\_METADATA\\_BLOCKS Table](#) and [AXF\\_METADATA\\_ATTRIBUTES Table](#). You can also configure the section's title and the task payload values displayed.
- If configured, users can view a Comments section that displays comment fragments and provides icons for displaying full comments or adding them for the

task. You configure comments for display in the [AXF\\_METADATA\\_BLOCKS Table](#).

- If configured, users can view a dynamic data table (bottom tabs) from the BPEL payload XML, such as General Ledger lines for an invoice processing solution. You configure the table in the [AXF\\_METADATA\\_BLOCKS Table](#) and its data lines in the [AXF\\_METADATA\\_ATTRIBUTES Table](#). For more information, see [Configuring or Disabling a Dynamic Data Table](#).

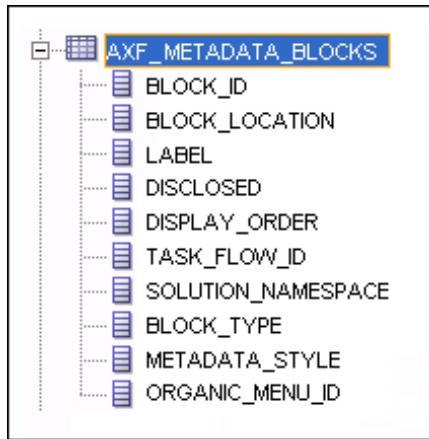
### Configuring the Task Viewer

You configure the Task Viewer in the following tables:

- [AXF\\_SOLUTION\\_PARAMETERS Table](#)
- [AXF\\_ACTION\\_MENU Table](#)
- [AXF\\_ACTIONS Table](#)
- [AXF\\_METADATA\\_BLOCKS Table](#)
- [AXF\\_METADATA\\_ATTRIBUTES Table](#)

### A.2.3.1 AXF\_METADATA\_BLOCKS Table

This table defines the task viewer itself and its sections for display on the Task Viewer page.



### Column Description

**Table A-21 Column Description for AXF\_METADATA\_BLOCKS Table**

Column	Description
BLOCK_ID	Identifies the row in the database. Links to the <a href="#">AXF_METADATA_ATTRIBUTES Table</a> .
BLOCK_LOCATION	Specifies where the block displays on the Task Viewer page. <i>LEFT_SIDEBAR</i> displays a left sidebar pane.
LABEL	Defines the pane's label (for example, <i>Summary</i> or <i>Comments</i> ).

**Table A-21 (Cont.) Column Description for AXF\_METADATA\_BLOCKS Table**

Column	Description
DISCLOSED	Specify TRUE to display the block in expanded form. If you specify FALSE, the item is displayed but collapsed.
DISPLAY_ORDER	Specifies the order in which the block is displayed.
TASK_FLOW_ID	Specifies the task flow on which to display the metadata block (for example, <i>axf-taskviewer-tfd</i> or <i>axf-tasklist-tfd</i> ).
SOLUTION_NAMESPACE	Specifies the AXF solution name.
BLOCK_TYPE	Specifies the type of values contained in the block (for example, METADATA or COMMENT).
METADATA_STYLE	Specifies how metadata is used. You can specify <code>null</code> (not used) or <code>table</code> .  Specify <code>table</code> to display a table of dynamic data from the BPEL payload XML in the bottom tabs. See <a href="#">Formatting XML Data For a Dynamic Data Table</a> . Note that this block displays only if there is data available. To hide the bottom panel, see <a href="#">Hiding the Bottom Panel in the Task Viewer</a> .  To configure a dynamic table, the following values must be specified: <code>BLOCK_LOCATION = BOTTOM_PANEL</code> <code>BLOCK_TYPE = METADATA</code> <code>METADATA_STYLE = table</code>
ORGANIC_MENU_ID	Reserved for future use.

**Example Implementation**

This table displays the Summary and Comments section on the Task Viewer page.

Columns not shown: DISCLOSED=TRUE

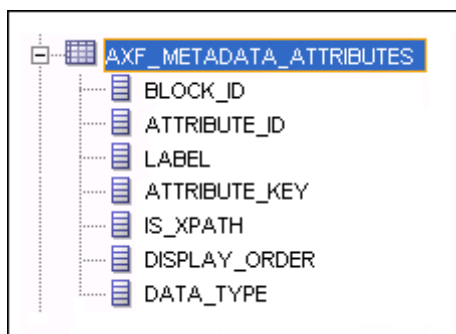
ORGANIC\_MENU\_ID=null

**Table A-22 Example AXF\_METADATA\_BLOCKS Table**

BLOCK_ID	BLOCK_LOCATION	LABEL	DISPLAY_ORDER	TASK_FLOW_ID	SOLUTION_NAMESPACE	BLOCK_TYPE	METADATA_STYLE
1	LEFT_SIDEBAR	Summary	1	axf-taskviewer-tfd	InvoiceProcessing	METADATA	null
2	LEFT_SIDEBAR	Comments	2	axf-taskviewer-tfd	InvoiceProcessing	COMMENT	null
3	BOTTOM_PANEL	GL Lines	3	axf-taskviewer-tfd	InvoiceProcessing	METADATA	TABLE

**A.2.3.2 AXF\_METADATA\_ATTRIBUTES Table**

This table defines the labels and values to show in metadata sections specified in the [AXF\\_METADATA\\_BLOCKS Table](#). It also defines how attribute values are retrieved for display using XPath attributes.



### Column Description

**Table A-23 Column Description for AXF\_METADATA\_ATTRIBUTES Table**

Column	Description
BLOCK_ID	References the <a href="#">AXF_METADATA_BLOCKS Table</a> in which to display metadata labels and values.
ATTRIBUTE_ID	Primary key for the metadata attribute.
LABEL	Specifies the metadata label displayed to users in the metadata section (for example, <i>Status</i> in a Summary section). When a dynamic data table is specified, this label becomes a column header.
ATTRIBUTE_KEY	This attribute is updated in the BPEL task when a user clicks the OK button on the Task Viewer page. The attribute value is either a system attribute name (see <a href="#">Update Task Command (BPEL)</a> ) or prefixed with XPATH, which uses the XPath table to find the value. Only XPATH is supported for a dynamic data table. If the IS_XPATH value is TRUE, the attribute_key value comes from the <a href="#">AXF_XPATH_ATTRIBUTES Table</a> and is the XPATH to update the value in the task payload.
IS_XPATH	If TRUE, the attribute value comes from the XPATH in the BPEL payload. If FALSE, the value comes from system attributes or flex field attributes.
DISPLAY_ORDER	Specifies the order in which the metadata label/value display in the metadata section. For a dynamic data table, specifies the column order.
DATA_TYPE	Specifies the metadata item's data type (for example, String). This value must be STRING for a dynamic data table.

### Example Implementation

[Table A-24](#) defines metadata labels and values displayed in a Task Viewer's Summary section, as shown in [Figure A-2](#). For another example, see [Configuring or Disabling a Dynamic Data Table](#).

Columns not shown:

DATA\_TYPE=String

**Table A-24 Example AXF\_METADATA\_ATTRIBUTES Table for Summary Section**

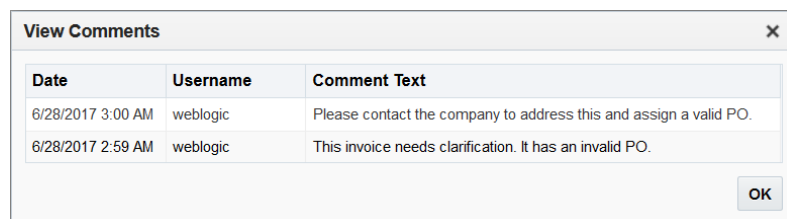
BLOCK_ID	ATTRIBUTE_ID	LABEL	ATTRIBUTE_KEY	IS_XPATH	DISPLAY_ORDER
1	1	Status	InvoiceProcessing_Status	TRUE	0
1	2	Exception Code	InvoiceProcessing_ExceptionCode	TRUE	1
1	3	Processing Group	InvoiceProcessing_ProcessingGroup	TRUE	2
1	4	Invoice Number	InvoiceProcessing_InvoiceNumber	TRUE	3
1	5	Supplier Name	InvoiceProcessing_SupplierName	TRUE	4
1	6	Supplier Site	InvoiceProcessing_SupplierSiteName	TRUE	5

### A.2.3.3 Comments

The Comments pane enables users to view and enter comments related to the human task during the transaction's processing. You configure comments in the [AXF\\_METADATA\\_BLOCKS Table](#). Also see [About Comments](#).

You can specify whether the Comments field is displayed on the **General** tab of Imaging's Solution Editor. You can display comments on the Task Viewer, Identity Picker, and Enumeration Picker pages, as described in *Solution Editor Page: General Tab* in *Administering Oracle WebCenter Content: Imaging*.

**Figure A-5 View Comments**

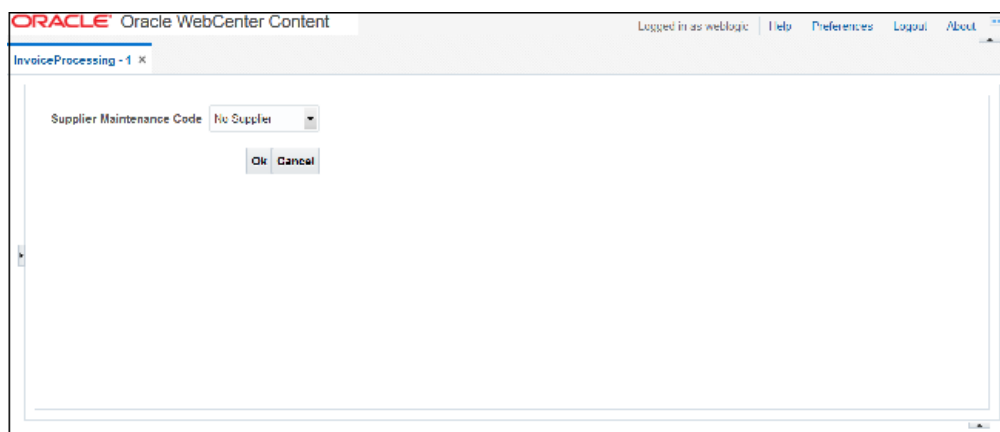


### A.2.4 Enumeration Picker Web Tool

The Enumeration Picker web tool enables users to select a choice from a list of values configured in AXF tables. For example, the Enumeration Picker shown in the graphic that follows displays a Supplier Maintenance drop-down field containing the supplier code values.



**Figure A-6 Enumeration Picker Web Tool**



After the user selects a value, the value is updated into the BPEL payload before the configured command executes, typically a command to return to the Task Viewer or to complete the command.

You configure the Enumeration Picker in the following tables:

- Define configuration parameters for the picker in the [AXF\\_SOLUTION\\_PARAMETERS](#) table (see [Table A-25](#)).
- Define the picker in the [AXF\\_ENUM\\_TYPES](#) Table.
- Define the picker's values in the [AXF\\_ENUM\\_ITEMS](#) Table.

After configuring enumerations, you can edit them in Imaging's Solution Editor. On the Enumeration tab, add, delete, and reorder enumerations, or specify their available values, as described in [Solution Editor Page: Enumerations Tab in \*Administering Oracle WebCenter Content: Imaging\*](#).

### A.2.4.1 Enumeration Picker Parameters

**Table A-25 Enumeration Picker Parameters in [AXF\\_SOLUTION\\_PARAMETERS](#) Table**

Parameter	Description
LOV_REFERENCE	This list of values reference links to the <a href="#">AXF_ENUM_TYPES</a> Table, whose ID value links to the <a href="#">AXF_ENUM_ITEMS</a> Table, where all picker values are stored.
ATTRIBUTE_NAME	This attribute is updated in the BPEL task when a user clicks the OK button on the Enumeration Picker web page. The attribute value is a constant; see <a href="#">Update Task Command (BPEL)</a> . If the value has an XPATH: prefix, the value comes from the <a href="#">AXF_XPATH_ATTRIBUTES</a> Table and it is the XPATH to update the value in the task payload.
CMD_ON_CANCEL	Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the Cancel button on the Enumeration Picker page.

**Table A-25 (Cont.) Enumeration Picker Parameters in AXF\_SOLUTION\_PARAMETERS Table**

Parameter	Description
CMD_ON_OK	Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the OK button on the Enumeration Picker page.
ATTRIBUTE_LABEL	Specify the label name to display on the web page for attributes to be updated in the BPEL task.
DEFAULT_VALUE	Specify a default value for the picker. If no default is specified, a blank value displays.
DEFAULT_ALWAYS	Specify TRUE to always show the value specified in the DEFAULT_VALUE parameter when displaying the Enumeration Picker, even if another value was previously selected. Otherwise, specify FALSE.

**Example Implementation**

This example shows an enumeration picker referenced for selecting the processing group.

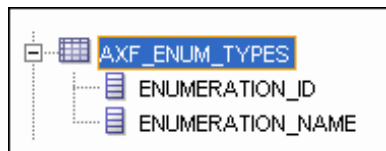
Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-26 Example Enumeration Picker Parameters in AXF\_SOLUTIONS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AssignProcessingGroupEdit	oracle.imaging.axf.web.backing.EnumerationPicker	LOV_REFERENCE	ProcessingGroups
AssignProcessingGroupEdit	oracle.imaging.axf.web.backing.EnumerationPicker	ATTRIBUTE_LABEL	Processing Group
AssignProcessingGroupEdit	oracle.imaging.axf.web.backing.EnumerationPicker	CMD_ON_OK	AssignProcessingGroup Complete
AssignProcessingGroupEdit	oracle.imaging.axf.web.backing.EnumerationPicker	ATTRIBUTE_NAME	XPATH:InvoiceProcessing_ProcessingGroup
AssignProcessingGroupEdit	oracle.imaging.axf.web.backing.EnumerationPicker	CMD_ON_CANCEL	OpenTask
AssignProcessingGroupEdit	oracle.imaging.axf.web.backing.EnumerationPicker	DEFAULT_VALUE	North
AssignProcessingGroupEdit	oracle.imaging.axf.web.backing.EnumerationPicker	DEFAULT_ALWAYS	FALSE

**A.2.4.2 AXF\_ENUM\_TYPES Table**

This table defines Enumeration Pickers.



### Column Description

**Table A-27 Column Description for AXF\_ENUM\_TYPES Table**

Column	Description
ENUMERATION_ID	Specify an ID for the enumeration picker.
ENUMERATION_NAME	Specify a name for the enumeration picker configuration.

### Example Implementation

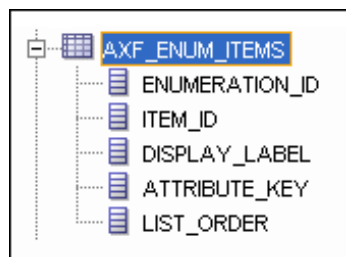
This example defines enumeration pickers for the Invoice Processing solution. You define each picker's items in the [AXF\\_ENUM\\_ITEMS Table](#).

**Table A-28 Example AXF\_ENUM\_TYPES Table**

ENUMERATION_ID	ENUMERATION_NAME
1	ProcessingGroups
2	SupplierMaintenanceCodes
3	SpecialistExceptionCodes
4	RescanCodes

## A.2.4.3 AXF\_ENUM\_ITEMS Table

This table defines a specified Enumeration Picker's values.



### Column Description

**Table A-29 Column Description for AXF\_ENUM\_ITEMS Table**

Columns	Description
ENUMERATION_ID	Specify the picker's ID, as defined in the <a href="#">AXF_ENUM_TYPES Table</a> .
ITEM_ID	Specify an ID for the picker item.
DISPLAY_LABEL	Specify the item name to display in the picker field.
ATTRIBUTE_KEY	Specify the literal value to store in the payload. This value is often the same as the DISPLAY_LABEL's value, but can differ.

**Table A-29 (Cont.) Column Description for AXF\_ENUM\_ITEMS Table**

Columns	Description
LIST_ORDER	Specify the order in which to list the value in the picker field.

**Example Implementation**

This example defines the items for the ProcessingGroups, SupplierMaintenanceCodes, SpecialistExceptionCodes, and RescanCodes enumeration pickers defined in the [AXF\\_ENUM\\_TYPES Table](#).

**Table A-30 Example AXF\_ENUM\_ITEMS Table**

ENUMERATION_ID	ITEM_ID	DISPLAY_LABEL	ATTRIBUTE_KEY	LIST_ORDER
1	1	North	North	1
1	2	South	South	2
1	3	East	East	3
1	4	West	West	4
2	5	No Supplier	No Supplier	1
2	6	No Supplier Site	No Supplier Site	2
3	7	Duplicate Invoice	Duplicate Invoice	1
3	8	Invalid Invoice Number	Invalid Invoice Number	2
3	9	No PO	No PO	3
3	10	Invalid PO	Invalid PO	4
3	11	PO Overbill	PO Overbill	5
4	12	Poor Image Quality	Poor Image Quality	1
4	13	Pages Out of Order	Pages Out of Order	2
4	14	Pages Missing	Pages Missing	3
4	15	Other	Other	4

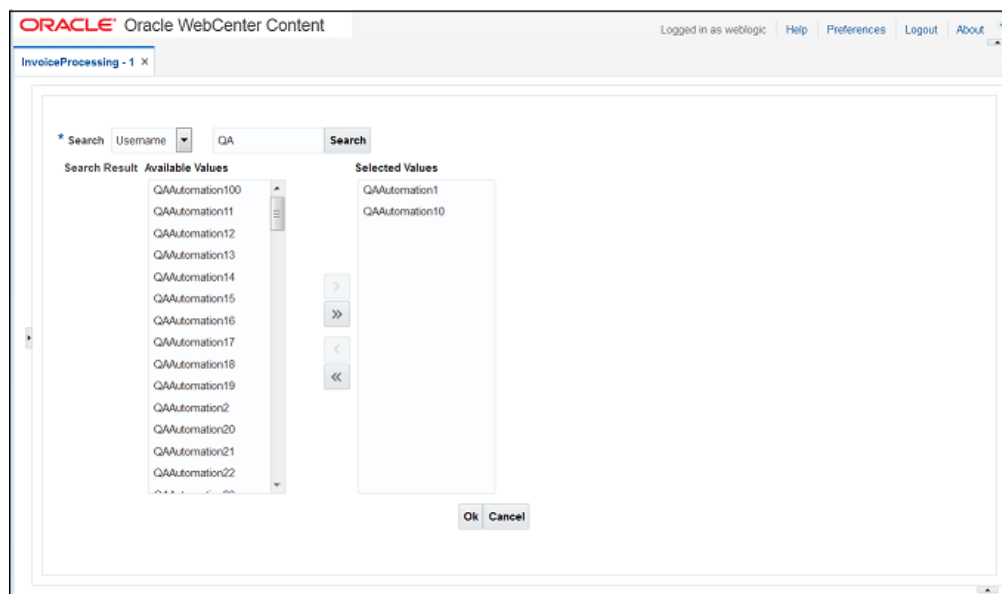
## A.2.5 Identity Picker Web Tool

The Identity Picker web tool enables users to select one or more users or groups from an identity store configured for BPEL. Typically, a related action is taken after choosing an identity; for example, a task is assigned or delegated. The action to take after selecting an identity is configured in the [AXF\\_SOLUTION\\_PARAMETERS Table](#).

 **Note:**

The command updates the task payload when the user clicks OK. The BPEL process is responsible for using this information to delegate the task.

**Figure A-7 Identity Picker Web Tool**



**Identity Picker Parameters**

**Table A-31 Identity Picker Parameters in AXF\_SOLUTION\_PARAMETERS Table**

Parameter Key	Description
CMD_ON_CANCEL	Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the Cancel button on the Identity Picker page.
CMD_ON_OK	Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the OK button on the Identity Picker page.
IDENTITY_FILTER	Define how the identity picker searches, where: <ul style="list-style-type: none"> <li>• USER: The picker searches for user information defined in BPEL.</li> <li>• GROUP: The picker searches for group information defined in BPEL.</li> </ul> <p><b>Note:</b> Specify USER or GROUP for a command. To allow both search types, create an additional command that uses the other type to open the identity picker. For example, you might create AssignByGroup and AssignByUser commands.</p>
IDENTITY_FILTER_ATTRIBUTED	Define a wildcard search for the identity picker, where: <ul style="list-style-type: none"> <li>• TRAILING: Adds an asterisk (*) to the end of the search value, as in jc*</li> <li>• LEADING: Adds an asterisk (*) to the start of the search value, as in *cooper</li> <li>• BOTH (default): Adds an asterisk (*) to the start and end of the search value, as in *jc*</li> <li>• NONE: No asterisks are added to the search value. This setting is useful for implementations where wildcard characters may cause searches to take a long time.</li> </ul> <p><b>Note:</b> A null value for this parameter results in an asterisk added to the start and end of search values (the default setting).</p>

**Table A-31 (Cont.) Identity Picker Parameters in AXF\_SOLUTION\_PARAMETERS Table**

Parameter Key	Description
IDENTITY_ATTRIBUTE	This attribute is updated in the BPEL task when a user clicks OK on the Identity Picker page. The Attribute value is a constant as defined under System Attributes; see <a href="#">Update Task Command (BPEL)</a> .  If the value has an XPATH: prefix, then the value comes from the <a href="#">AXF_XPATH_ATTRIBUTES Table</a> and it is the XPATH to update the value in the task payload.

**Example Implementation**

This example shows an InvoiceApprovalEdit command that searches for user information stored in BPEL, and updates the BPEL task using an XPATH variable.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-32 Example Identity Picker Parameters in AXF\_SOLUTION\_PARAMETERS table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	IDENTITY_FILTER	USER
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	IDENTITY_FILTER_ATTRIBUTE	NONE
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	CMD_ON_CANCEL	OpenTask
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	IDENTITY_ATTRIBUTE	XPATH:InvoiceProcessing_InvoiceApprovalAssignment
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	CMD_ON_OK	InvoiceApprovalComplete

## A.2.6 Account Distribution Coding Form (Oracle E-Business Suite Only)

The AXF Account Distribution Coding Form is a reusable web interface for entering and selecting detailed account distribution information for an invoice. [Figure A-8](#) shows the coding form used for non-PO invoices needing line item information. In this case, authorized users access this page from an Account Distribution task list, then key in account distribution codes.

Figure A-8 Example Account Distribution Coding Form

### Important Points About the Account Distribution Coding Form

- The coding form is available for Oracle E-Business Suite only.
- The coding form performs lookups against the Oracle E-Business Suite system. A JDBC Data Source must be set up on the Oracle WebCenter Imaging WebLogic Managed Server to enable the lookups. Refer to the solution accelerator documentation for information on setting up this JDBC Data Source.
- The coding form is invoked via a solution accelerator, as described in [Configuring the AXF Tables or Applying a Solution Accelerator](#). To use the coding form, you must deploy and configure a solution, along with supporting AXF commands and solution parameters.
- The buttons in the upper right portion of the form (Approve, Reject, Re-Assign, Save, Cancel, and Open Invoice) are configurable via the AXF tables.

The sections listed below provide general configuration information for the coding form.

- [AXF\\_LOOKUPS Script for Coding Form Lookup Elements](#)
- [Example Account Distribution Coding Form Solution](#)
- [Example Supporting Commands for the Account Distribution Coding Form](#)
- [Example OpenTask and AutoOpenTask Commands](#)

#### A.2.6.1 AXF\_LOOKUPS Script for Coding Form Lookup Elements

The **AXF\_LOOKUPS.sql** script creates lookup elements for the coding form. You must execute it as the APPS user in the Oracle E-Business Suite database under the APPS schema.

1. Connect to the APPS schema in the Oracle E-Business Suite database using the appropriate APPS user.

2. If needed, uninstall the existing coding form lookups package.

You only need to perform this step if you are running an update/patch to an existing system that already has an AXF\_LOOKUPS coding form lookups package installed.

```
DROP TYPE AXF_LOOKUPS_SEGMENT_VALUE_COL;
show errors
DROP TYPE AXF_LOOKUPS_SEGMENT_OBJ;
show errors
DROP PACKAGE AXF_LOOKUPS;
show errors
```

3. Execute the AXF\_LOOKUPS script.

The script is delivered as part of the Oracle E-Business Suite adapter. It is located in one of the following locations, depending on Oracle E-Business Suite release:

- *MW\_HOME/wccontent/axf/adapters/ebs/R11/*
- *MW\_HOME/wccontent/axf/adapters/ebs/R12/*

Execute the script by entering:

```
@AXF_LOOKUPS.sql
```

## A.2.6.2 Example Account Distribution Coding Form Solution

[Table A-33](#) illustrates an example solution for Account Distribution.

**Table A-33 Example AXF\_SOLUTIONS Table for Account Distribution Coding Form**

SOLUTION_NAMESPACE	SOLUTION_CONTEXT
AccountDistribution	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

## A.2.6.3 Example Supporting Commands for the Account Distribution Coding Form

[Table A-34](#) lists example AXF commands that support the Account Distribution coding form solution.

**Table A-34 Example AXF\_COMMANDS Table for Account Distribution Coding Form**

SOLUTION_NAMESPACE	COMMAND_CLASS	COMMAND_NAMESPACE	Description
AccountDistribution	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AccountDistributionApprove	Creates a command for the coding form's Approve button.
AccountDistribution	oracle.imaging.axf.commands.bpel.ReleaseTaskCommand	AccountDistributionCancel	Creates a command for the coding form's Cancel button.
AccountDistribution	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AccountDistributionReject	Creates a command for the coding form's Reject button.



**Table A-34 (Cont.) Example AXF\_COMMANDS Table for Account Distribution Coding Form**

SOLUTION_NAMESPACE	COMMAND_CLASS	COMMAND_NAMESPACE	Description
AccountDistribution	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AccountDistributionRequestInfo	Creates a command for the coding form's Request Information button.
AccountDistribution	oracle.imaging.axf.commands.system.RedirectCommand	AssignUser	Creates a command for the coding form's Re-Assign button.
AccountDistribution	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AssignUserComplete	Creates a command to redirect users to the Identity Picker.
AccountDistribution	oracle.imaging.axf.commands.bpel.AutotaskCommand	AutoOpenTask	Creates a command for the autotask operation on the Task List.
AccountDistribution	oracle.imaging.axf.commands.bpel.OpenTaskCommand	OpenTask	Creates an OpenTask command link on the Task List.
AccountDistribution	oracle.imaging.axf.commands.system.RedirectCommand	StartAccountDistribution	Creates a command to redirect users from the Task List to the coding form.

### A.2.6.4 Example OpenTask and AutoOpenTask Commands

Options for the OpenTask and AutoOpenTask commands are configured for the coding form's solution. [Table A-35](#) shows an example of OpenTask options.

Fields not shown: SOLUTION\_NAMESPACE and COMMAND\_NAMESPACE

**Table A-35 Example AXF\_SOLUTION\_PARAMETERS Table for Account Distribution Coding Form**

CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE	Description
oracle.imaging.axf.web.backing.Coding	CMD_APPROVE	AccountDistributionApprove	COMMAND_NAMESPACE to execute when a user clicks the coding form's Approve button.
oracle.imaging.axf.web.backing.Coding	CMD_CANCEL	AccountDistributionCancel	COMMAND_NAMESPACE to execute when a user clicks the coding form's Cancel button.
oracle.imaging.axf.web.backing.Coding	CMD_REASSIGN	AssignUser	COMMAND_NAMESPACE to execute when a user clicks the coding form's Re-Assign button.

**Table A-35 (Cont.) Example AXF\_SOLUTION\_PARAMETERS Table for Account Distribution Coding Form**

CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE	Description
oracle.imaging.axf.web.backing.Coding	CMD_REJECT	AccountDistributionReject	COMMAND_NAMESPACE to execute when a user clicks the coding form's Reject button.
oracle.imaging.axf.web.backing.Coding	CMD_REQUEST_INFO	AccountDistributionRequestInfo	COMMAND_NAMESPACE to execute when a user clicks the coding form's Request Information button.
oracle.imaging.axf.web.backing.Coding	DISABLE_PROJECT	FALSE	A flag to disable the Project lookups box on the coding form.
oracle.imaging.axf.web.backing.Coding	READ_ONLY	TRUE	Specify if users can enter and edit values on the coding form (FALSE, the default) or view them as read-only values (TRUE).

## A.3 AXF Commands for the BPEL Imaging Solution

BPEL AXF commands include:

- [Open Task Command](#)
- [Autotask Command](#)
- [Release Task Command](#)
- [Complete Task Command](#)
- [Redirect Command](#)
- [Update Task Command \(BPEL\)](#)
- [Update Task From Procedure Command](#)
- [Terminate Conversation Command](#)
- [Validate Task Command](#)

 **Note:**

You can also deploy custom commands and chained commands to execute through AXF. See [Deploying Custom Commands](#) and [Configuring Chained Commands and User Interface Components](#).

## A.3.1 Open Task Command

This command acquires a task from BPEL (human work flow) for a given task ID; the specific task is likely selected from the task list. If the task can be acquired by the user, the command obtains the details of the task and displays the specified web page.

### Open Task Command Parameters

Table A-36 lists configuration parameters for this command. Use these parameters in the [AXF\\_SOLUTION\\_PARAMETERS Table](#) to configure commands.

**Table A-36 Parameters for OpenTask Command**

Parameter Key	Description
TASK_VIEW_URL	<p>This task flow is returned in the response command upon executing this command.</p> <p>The value for the TASK_VIEW_URL parameter uses one of the following strings to represent task flows. Each string can be thought of as a special URL where <i>taskflow:</i> is the protocol instead of <i>http</i>.</p> <ul style="list-style-type: none"> <li>taskflow://WEB-INF/taskflows/axf-tasklist-tfd.xml#axf-tasklist-tfd (displays the Task List)</li> <li>taskflow://WEB-INF/taskflows/axf-taskviewer-tfd.xml#axf-taskviewer-tfd (displays the Task Viewer)</li> <li>taskflow://WEB-INF/taskflows/axf-identity-picker-tfd.xml#axf-identity-picker-tfd (displays the Identity Picker)</li> <li>taskflow://WEB-INF/taskflows/axf-enumeration-picker-tfd.xml#axf-enumeration-picker-tfd (displays the Enumeration Picker)</li> <li>taskflow://WEB-INF/taskflows/axf-comments-tfd.xml#axf-comments-tfd (displays Comments)</li> </ul>

### Example Implementation

This example uses the OpenTask command to display the Task Viewer for the Invoice Processing solution.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-37 Example Open Task Command in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
OpenTask	oracle.imaging.axf.commands.bpel. OpenTaskCommand	TASK_VIEW_URL	taskflow://WEB-INF/ taskflows/axf-taskviewer- tfd.xml#axf-taskviewer- tfd

## A.3.2 Autotask Command

This command displays autotask mode, in which a new human workflow task is automatically claimed for the user. Also see [Configuring Autotask Locking](#).

### Autotask Command Parameters

Use the parameters in the [AXF\\_SOLUTION\\_PARAMETERS Table](#) to configure Autotask commands.

**Table A-38 Autotask Command Parameters in AXF\_SOLUTION\_PARAMETERS Table**

Parameter Key	Description
TASK_VIEW_URL	Task flow returned in the response command upon executing this command.
CMD_ON_NO_TASKS	COMMAND_NAMESPACE to execute when there are no tasks.
BPEL_TRY_AUTO	Time in milliseconds between attempts to obtain the next task from the Human workflow system.

**Example Implementation**

This example uses the Autotask command to automatically claim tasks and display them in the Task Viewer for the Invoice Processing solution.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-39 Autotask Command Parameters in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AutoOpenTask	oracle.imaging.axf.commands.bpel. AutotaskCommand	TASK_VIEW_URL	taskflow://WEB-INF/ taskflows/axf-taskviewer- tfd.xml#axf-taskviewer- tfd
AutoOpenTask	oracle.imaging.axf.commands.bpel. AutotaskCommand	CMD_ON_NO_TAS KS	StartInvoiceProcessing
AutoOpenTask	oracle.imaging.axf.commands.bpel. AutotaskCommand	BPEL_TRY_AUTO	3000

### A.3.3 Release Task Command

The Release Task command releases a human workflow task. You can configure this command with actions to execute after it is complete, using CMD\_AUTOTASK\_ON and CMD\_AUTOTASK\_OFF parameters.

**Release Task Command Parameters**

[Table A-40](#) lists configuration parameters for this command. Use these parameters in the [AXF\\_SOLUTION\\_PARAMETERS Table](#) to configure commands.

**Table A-40 Release Task Command Parameters**

Parameter Key	Description
CMD_AUTOTASK_OFF	Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is off.
CMD_AUTOTASK_ON	Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is on.

### Example Implementation

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-41 Example Release Task Commands in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
SkipTask	oracle.imaging.axf.commands.bpel. ReleaseTaskCommand	CMD_AUTOTASK_ OFF	StartInvoiceProcessing
SkipTask	oracle.imaging.axf.commands.bpel. ReleaseTaskCommand	CMD_AUTOTASK_ ON	AutoTaskOpen
ReleaseTask	oracle.imaging.axf.commands.bpel. ReleaseTaskCommand	CMD_AUTOTASK_ OFF	StartInvoiceProcessing
ReleaseTask	oracle.imaging.axf.commands.bpel. ReleaseTaskCommand	CMD_AUTOTASK_ ON	StartInvoiceProcessing

## A.3.4 Complete Task Command

The Complete Task command updates the list of attributes and outcome for a specified task in the human task workflow. This command also takes the parameters defined for the [Update Task Command \(BPEL\)](#).

In addition, the Complete Task command can update BPEL payload attribute values using request parameters to the command. You can also configure this command with actions to execute after it is complete, using CMD\_AUTOTASK\_ON and CMD\_AUTOTASK\_OFF parameters.

### Complete Task Command Parameters

[Table A-42](#) lists configuration parameters for this command. Use these parameters in the [AXF\\_SOLUTION\\_PARAMETERS Table](#) to configure commands.

**Table A-42 CompleteTask Command Parameters**

Parameter Key	Description
OUTCOME	Specify the outcome defined for the human work flow system. APPROVE and REJECT are available by default in any BPEL process; the process designer can create others.
CMD_AUTOTASK_ON	Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is on.
CMD_AUTOTASK_OFF	Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is off.

### Example Implementation

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-43 Example Complete Task Command in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
DeleteInvoice	oracle.imaging.axf.commands.bpel. CompleteTaskCommand	CMD_AUTOTASK_ OFF	StartInvoiceProcessing

**Table A-43 (Cont.) Example Complete Task Command in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
DeleteInvoice	oracle.imaging.axf.commands.bpel. CompleteTaskCommand	CMD_AUTOTASK_ ON	AutoOpenTask
DeleteInvoice	oracle.imaging.axf.commands.bpel. CompleteTaskCommand	OUTCOME	DELETE_INVOICE

## A.3.5 Redirect Command

The Redirect command redirects the browser to an AXF web tool or other external URL. The request parameters valid for internal URLs only include:

- CID (Conversation ID)
- PID (ParameterSet ID)

Store any user defined request parameters as part of the PID.

The command returns the URL in the response command.

[Table A-44](#) lists configuration parameters for this command. Use these parameters in the [AXF\\_SOLUTION\\_PARAMETERS Table](#) to configure commands.

### Redirect Command Parameters

**Table A-44 RedirectCommand Parameters**

Parameter Key	Description
REDIRECT_URL	This URL is returned in the response command upon executing this command. It is either: <ul style="list-style-type: none"> <li>• a task flow String corresponding to a task flow ID which loads one or more pages on the task flow.</li> <li>• a standard URL string that redirects to the specified URL.</li> </ul>
EXTERNAL	If this has a value of TRUE, then the redirect page does not have a CID and PID appended to it. The re-direct URL is an external website and all request parameters are appended in the URL.

### Example Implementation

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing

**Table A-45 Example Redirect Command in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
StartInvoiceProcessing	oracle.imaging.axf.commands.syst em.RedirectCommand	EXTERNAL	FALSE
StartInvoiceProcessing	oracle.imaging.axf.commands.syst em.RedirectCommand	REDIRECT_URL	taskflow://WEB-INF/ taskflows/axf-tasklist- tfd.xml#axf-tasklist-tfd

## A.3.6 Update Task Command (BPEL)

The Update Task command can update one of the following: the list of attributes in the BPEL task, values in the XML payload using XPATH, or system attributes. (For an XPATH example, see the section below on Example Implementation.)

You can create your own parameter keys for the Update Task command and use either a system attribute or an XPATH for the parameter value. AXF searches the request parameters and finds all the values that match the parameter keys (besides outcome), and pulls parameter keys for the list of attributes to use in that task payload.

To update a non-payload attribute in the BPEL task, use a system attribute from those listed below. For example, the UpdateTask command can take the value of `outcome` (defined as `PARAMETER_KEY`) from the request parameter and update the `OUTCOME` (defined as `PARAMETER_VALUE`) attribute value in the task.

### Update Task Command Parameters

**Table A-46 Parameters for UpdateTaskCommand**

Parameter Key	Description
OUTCOME	Specify the outcome defined for the human work flow system. APPROVE and REJECT are available by default in any BPEL process; the process designer can create others.

### System Attributes

Following are the system attributes:

- ACQUIREDBY
- APPROVERS
- ASSIGNEDDATE
- ASSIGNEDGROUP //Cannot be updated
- ASSIGNEDUSER //Cannot be updated
- CREATEDATE
- CREATOR
- DATEATTRIBUTE1-DATEATTRIBUTE5
- EXPIREDDATE
- ENDDATE
- FORMATATTRIBUTE1-FORMATATTRIBUTE5
- FROMUSER
- NUMBERATTRIBUTE1-NUMBERATTRIBUTE5
- OUTCOME
- OWNERGROUP
- OWNERUSER
- PRIORITY

- STATE
- TASKID
- TASKNUMBER //Cannot be updated
- TITLE
- TASKDEFINITIONNAME
- TEXTATTRIBUTE1-TEXTATTRIBUTE10
- UPDATEDBY
- URLATTRIBUTE1 - URLATTRIBUTE5

**Example Implementation**

This example shows two attributes updated by the same comand\_namespace, UpdateHelloBPEL. For more information about HelloBPEL, see Verifying the AXF for BPEL Installation and Configuration with HelloBpel in *Installing and Configuring Oracle WebCenter Content*.

Fields not shown: SOLUTION\_NAMESPACE=HelloBPEL

**Table A-47 Example UpdateTaskCommand Parameters in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UpdateHelloBPEL	oracle.imaging.axf.commands.bpel. UpdateTaskCommand	String1	XPATH:HelloBPEL_Strin g1
UpdateHelloBPEL	oracle.imaging.axf.commands.bpel. UpdateTaskCommand	String2	XPATH:HelloBPEL_Strin g2

### A.3.7 Update Task From Procedure Command

The Update Task From Procedure command calls a stored pl/sql procedure using a specified data source and updates the task payload using XPATH. See sections below for an example implementation and for an example stored pl/sql procedure.

**Update Task From Procedure Command Parameters**

**Table A-48 Parameters for UpdateTaskFromProcedure Command**

Parameter Key	Description
XPATH_DATASTRING	Specifies an XPATH variable contained in the AXF_XPATH_ATTRIBUTES Table that refers to the XPATH where the list of returned data is stored.
XPATH_MESSAGESTRING	Specify an XPATH variable to allow the UpdateFromStoredProcedure function to write data to the BPEL payload for communicating basic status or error codes encountered during execution of the function (axfretrieveuserlist).
CMD_NO_DATA	Specifies the command to execute if no results return from the pl/sql function.
CMD_DATA	Specifies the command to execute if results return from the pl/sql function.



**Table A-48 (Cont.) Parameters for UpdateTaskFromProcedure Command**

Parameter Key	Description
CMD_ERROR	Specifies the command to execute if an error is returned from the pl/sql function.
JNDI_DS	Specifies the name of the JNDI data source, configured on the Application Server, to use for execution of the pl/sql function.
PLSQL_PROC	Specifies the name of the pl/sql function to call.

**Example Implementation**

This example uses the Update Task From Procedure command to call a stored pl/sql procedure called AXFRETRIEVEUSERLIST using a data source (EBSDS). AXFRETRIEVEUSERLIST retrieves the invoice ID, queries for the invoice amount for that transaction, and based on that amount, returns a set of users for invoice approval.

**Table A-49 AXF\_SOLUTIONS Table for UpdateTaskFromProcedureCommand Example**

SOLUTION_NAMESPACE	SOLUTION_CONTEXT
InvoiceProcessing	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

**Table A-50 AXF\_COMMANDS Table for UpdateTaskFromProcedureCommand Example (Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing)**

COMMAND_CLASS	COMMAND_NAMESPACE
oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	RetrieveUserList

**Table A-51 AXF\_SOLUTION\_PARAMETERS Table for UpdateTaskFromProcedureCommand Example (Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing)**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	XPATH_DATASTRING	XPATH:InvoiceProcessing_InvoiceApprovalAssignment
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	XPATH_MESSAGE_STRING	<INSERT: an XPATH variable to use for communicating status through the payload>
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	CMD_DATA	InvoiceApprovalEdit
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	CMD_NO_DATA	CompleteInvoice

**Table A-51 (Cont.) AXF\_SOLUTION\_PARAMETERS Table for UpdateTaskFromProcedureCommand Example (Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing)**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	CMD_ERROR	StartInvoiceProcessing
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	JNDI_DS	jdbc/EBSDS
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	PLSQL_PROC	AXFRETRIEVEUSERLIST

In the AXF\_XPATH\_ATTRIBUTES table that follows, the corresponding XPATH column displays the XPATH expression used to locate the value in the payload.

**Table A-52 AXF\_XPATH\_ATTRIBUTES Table for UpdateTaskFromProcedureCommand Example**

ATTRIBUTE_KEY	XPATH
InvoiceProcessing_InvoiceApprovalAssignment	//task:InvoiceApprovalAssignment

In the AXF\_NAMESPACES table that follows, the XMLNS\_URI column displays where within the XML file to locate the InvoiceApprovalAssignment task information.

**Table A-53 AXF\_XPATH\_NAMESPACES Table for UpdateTaskFromProcedureCommand Example**

Prefix	XMLNS_URI
task	http://xmlns.oracle.com/bpel/workflow/task

**Example PL/SQL Procedure For Updating the Task Payload**

The pl/sql procedure that follows loads the xml into the DOM, retrieves the invoice ID, queries for the invoice amount for that transaction, and based on that amount, returns a set of users.

```

create or replace FUNCTION axfretrieveuserlist(xmlPayload IN VARCHAR2, pDataString OUT VARCHAR2,
pMsgString OUT VARCHAR2) RETURN INTEGER IS

    v_node      xmldom.DOMNode;
    v_node2     xmldom.DOMNode;
    v_nl        xmldom.DOMNodeList;
    v_doc       xmldom.DOMDocument;
    v_elem      xmldom.DOMELEMENT;
    v_parser    xmldom.Parser;
    invoiceID   VARCHAR2(256);
    invoiceAmount NUMBER(8,2);
    userList    VARCHAR2(256);
    rtnCode     INTEGER;

```

```
BEGIN

  rtnCode := 0; -- execute CMD_NO_DATA
  -- rtnCode := -1; -- execute CMD_ERROR
  pmsgstring := ''; -- empty msg string
  v_parser := xmlparser.newParser;
  xmlparser.parseBuffer(v_parser, xmlPayload);
  v_doc := xmlparser.getDocument(v_parser);
  xmlparser.freeParser(v_parser);

  -- Retrieve the invoice ID
  v_nl := xmldom.getElementsByTagName(v_doc, 'invoiceID');
  v_node := xmldom.item(v_nl, 0);
  v_node2 := xmldom.getFirstChild(v_node);
  invoiceID := xmldom.getNodeValue(v_node2);

  -- Retrieve Invoice Amount for given invoice id
  select INVOICE_AMOUNT into invoiceAmount from ap_invoices_all where INVOICE_ID = invoiceid;

  if invoiceamount > 10000 then
    pdatastring := 'jlonon';
    rtnCode := 1; -- execute CMD_DATA
    pmsgstring := 'Additional approval required due to invoice amount.';
  else
    pdatastring := 'jcooper,mtwain';
    rtnCode := 1; -- execute CMD_DATA
    pmsgstring := 'No further approval is required.';
  end if;

  RETURN rtnCode;

END;
```

Follow these steps to use this example.

1. Modify this procedure to retrieve the specific pieces of data from the payload you would like. The only requirement is that the pl/sql function you create must take a VARCHAR2, set up two VARCHAR2 out parameters, and return an INTEGER. The name of the function is in the AXF configuration.
2. Install the stored procedure on the Oracle E-Business Suite database instance. The procedure must be run as the Apps user.
3. On the AXF instance and as the AXF user, run the following command to update the AXF\_ACTIONS table to insert the new RetrieveUserList Command into the execution path:

```
UPDATE AXF_ACTION SET COMMAND_NAMESPACE = 'RetrieveUserList' where DISPLAY_TEXT = 'Invoice Approval' and COMMAND_NAMESPACE = 'ValidateInvoiceApprovalEdit'
```

## A.3.8 Terminate Conversation Command

The Terminate Conversation Command is used by an external client to terminate a conversation with AXF.

## A.3.9 Validate Task Command

The Validate Task command validates BPEL system attribute data or BPEL payload data, and based on validation results, executes a subsequent command.

[Table A-54](#) lists configuration parameters for this command. Use these parameters in the [AXF\\_SOLUTION\\_PARAMETERS Table](#) to configure commands.

### Validate Task Command Parameters

**Table A-54 ValidateTaskCommand Parameters**

Parameter Key	Description
ATTRIBUTE_TO_VALIDATE	Specifies the attribute in the BPEL task to validate. This can be either a system attribute or a payload attribute. If specifying a payload attribute, use a prefix value of <i>XPATH:</i> and reference a value from the <a href="#">AXF_XPATH_ATTRIBUTES Table</a> .
REGULAR_EXPRESSION	Defines a standard Regular Expression for validating the specified attribute.
CMD_ON_PASS	Specifies the command to execute after this command, if the validation is successful.
CMD_ON_FAIL	Specifies the command to execute after this command if the validation fails.
FAIL_MESSAGE	Specifies the message to display if the validation fails.

### Example Implementation

The following configuration validates that the invoice has been saved (Invoice Transaction ID is not 0). If it is 0, the command reports the error message specified in the `FAIL_MESSAGE` parameter. For steps to add a validation, see [Adding a Validation](#).

Fields not shown: `SOLUTION_NAMESPACE=InvoiceProcessing`

**Table A-55 Example ValidateTask Command in AXF\_SOLUTION\_PARAMETERS Table**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	ATTRIBUTE_TO_VALIDATE	XPATH:InvoiceProcessing_TransactionID
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	CMD_ON_PASS	CompleteInvoice
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	REGULAR_EXPRESSION	[^0]
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	FAIL_MESSAGE	Please save the transaction before completing the task.

## A.4 Oracle E-Business Suite Forms Tables For the BPEL Imaging Solution

Configuring AXF for Oracle E-Business Suite requires configuring AXF-related tables in Oracle E-Business Suite. This section covers the following topics:

- [About the Oracle E-Business Suite AXF Tables For the BPEL Imaging Solution](#)
- [AXF\\_CONFIGS Table \(Oracle E-Business Suite\)](#)
- [AXF\\_COMMANDS Table \(Oracle E-Business Suite\)](#)
- [AXF\\_COMMAND\\_PARAMETERS Table \(Oracle E-Business Suite\)](#)
- [AXF\\_PROPERTIES Table \(Oracle E-Business Suite\)](#)



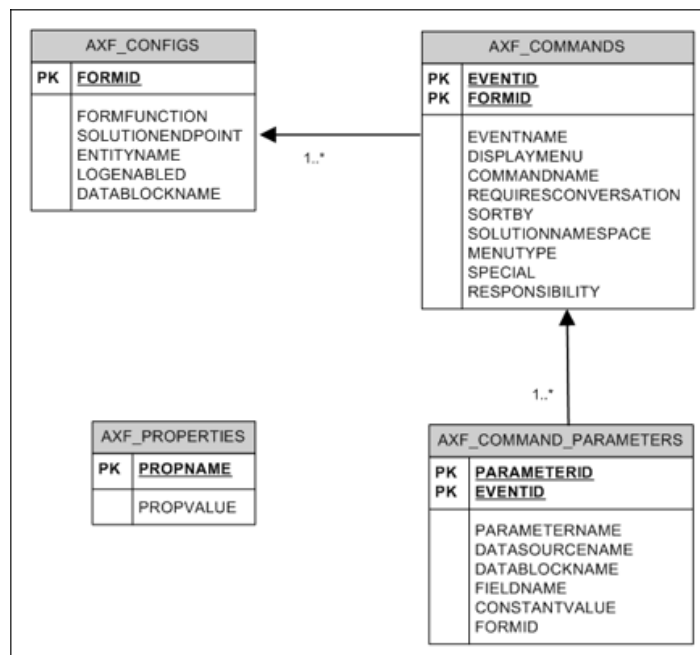
**Note:**

The Oracle E-Business Suite BPEL imaging solution is supported for Forms-based applications only, not OAF applications.

### A.4.1 About the Oracle E-Business Suite AXF Tables For the BPEL Imaging Solution

The following diagram shows how the tables used by the Oracle E-Business Suite system in AXF solutions are related.

**Figure A-9 Oracle E-Business Suite AXF Tables For the BPEL Imaging Solution**



## A.4.2 AXF\_CONFIGS Table (Oracle E-Business Suite)

Use the AXF\_CONFIGS table to enable the AXF solution on various Oracle E-Business Suite Forms. This table provides a fine level of granularity when selecting which Forms to AXF-enable, up to the Data Block level.

Form events are automatically invoked when an action is performed on an Oracle E-Business Suite Form. The AXF\_CUSTOM.pll makes all events available, such as POST-INSERT, for customization. You can decide which events to use, and how and when to use them.

When an action occurs, the customized code launches the specified solution and command configured for the event. In the case where the same form is being reused, such as Invoice Entry and Invoice Query, FORMFUNCTION and DATABLOCKNAME uniquely identify each Form.

### Note:

You can enable all datablocks on a form rather than a specific datablock, by specifying `AXF_DEFAULT` for the DATABLOCKNAME parameter. This allows AXF to be notified whenever a POST-INSERT event occurs for the form, regardless of its datablock. Note, however, that setting the DATABLOCKNAME parameter to `AXF_DEFAULT` enables specified ZOOM or SPECIAL commands on all pages related to the form. (Set ZOOM and SPECIAL commands in the [AXF\\_COMMANDS Table \(Oracle E-Business Suite\)](#).)

### Column Description

**Table A-56 Column Description for AXF\_CONFIGS Table**

Column Name	Description
FORMID	Specifies the primary key of the table.
FORMFUNCTION	Distinguishes each Oracle E-Business Suite Form based on the form's functionality.
SOLUTIONENDPOINT	Specifies a URL to AXF. This value should start as <code>https://</code> if SecureMode is on. See <a href="#">Securing Communications Through SSL (Oracle E-Business Suite)</a> .
ENTITYNAME	Used by the attachment functionality as a unique name, which links attachments to the correct Forms.
LOGENABLED	Enables or disables the log for the specified form. Specify one of the following: <ul style="list-style-type: none"> <li>1/TRUE/YES</li> <li>0/FALSE/NO</li> </ul>
DATABLOCKNAME	Specify the data block on the form to enable. Note that you can also specify <code>AXF_DEFAULT</code> to enable all data blocks on the form. A Form may be reused by Oracle E-Business Suite (for example, Invoice Entry and Invoice Query); the FORMFUNCTION and DATABLOCKNAME together uniquely identify each form.

### Example Implementation

This example defines that the entire Invoices Form is AXF-enabled. (Without the first row, the INV\_SUM\_FOLDER Data Block of the Invoices Form would be enabled.)

The last row in this example table shows the paperclip attachment feature enabled, by disabling the Managed Attachments solution. For more information, see [Reenabling Paperclip Attachments \(Oracle E-Business Suite and Imaging Only\)](#).

Fields not shown: LOGENABLED=YES

**Table A-57 Example AXF\_CONFIGS Table**

FORMID	FORMFUNCTION	SOLUTIONENDPOINT	ENTITYNAME	DATABLOCKNAME
1	AP_APXINWKB	https:// ApplicationServerName:Port/axf-ws/ AxfSolutionMediatorService	AP_INVOICES	AXF_DEFAULT
2	AP_APXINWKB_SUMMARY_VIEW	https:// ApplicationServerName:Port/axf-ws/ AxfSolutionMediatorService	AP_INVOICES	INV_SUM_FOLDER
6	AP_APXINWKB_BATCHES	https:// ApplicationServerName:Port/axf-ws/ AxfSolutionMediatorService	AP_INVOICES	INV_SUM_FOLDER
7	AXF_MANAGED_ATTACHMENTS-DISABLED	https:// ApplicationServerName:Port/axf-ws/ AxfSolutionMediatorService	(null)	(null)

## A.4.3 AXF\_COMMANDS Table (Oracle E-Business Suite)

Use the AXF\_COMMANDS table to describe the actions to take based on user activity. This table works with the [AXF\\_CONFIGS Table \(Oracle E-Business Suite\)](#).

### Column Description

**Table A-58 Column Description for AXF\_COMMANDS Table**

Column Name	Description
FORMID	Links to the <a href="#">AXF_CONFIGS Table (Oracle E-Business Suite)</a> .
EVENTID	Primary key of the table.
EVENTNAME	Name of the Event command to invoke (for example, ZOOM, POST-INSERT).
DISPLAYMENU	Displays text of the menu for the command.
COMMANDNAMESPACE	Request command to pass to the back-end when the menu is selected.
REQUIRESCONVERSATION	Indicates if the command requires a valid conversation or not.
SORTBY	Order in which to display the menu.

**Table A-58 (Cont.) Column Description for AXF\_COMMANDS Table**

Column Name	Description
SOLUTIONNAMESPACE	Name of the solution.
MENUTYPE	Specify the menu type to display to users in Oracle E-Business Suite. You can choose: <ul style="list-style-type: none"> <li>• ZOOM: Displays a Zoom menu in the toolbar.</li> <li>• ZOOMANDSPECIAL: Displays both a Zoom menu and a Special menu. (Enter a special key in the SPECIAL column.)</li> <li>• SPECIAL: Displays a Special menu on the toolbar. (Enter a special key in the Special column.)</li> </ul>
SPECIAL	Create new menu entries by entering a unique number for the Special type menu, where: <ul style="list-style-type: none"> <li>• SPECIAL1-15 creates entries in the Tools menu.</li> <li>• SPECIAL16-30 creates entries in the Reports menu.</li> <li>• SPECIAL31-45 creates entries in the Actions menu.</li> </ul> (Consult the Oracle E-Business Suite Documentation for further information.)
RESPONSIBILITY	Reserved for future use.

**Example Implementation**

This example shows two commands invoked from the Zoom menu (Attach Supplemental and Process Invoices). Each command is listed twice because the commands enable the same functionality, but on two different pages.

In addition, the solution has been configured to invoke the SaveInvoice command during the POST-INSERT event, which specifies that whenever an action inserts a new Oracle E-Business Suite transaction record, the integration automatically invokes the SaveInvoice command on the back-end, performing the actions associated with the command. Note that POST-INSERT is not called by a subsequent save of the same transaction record in Oracle E-Business Suite.

Fields not shown: SOLUTION\_NAMESPACE=InvoiceProcessing, SPECIAL=(null), RESPONSIBILITY=(null)

**Table A-59 Example AXF\_COMMANDS Table**

EVENTID	FORMID	EVENTNAME	DISPLAYMENU	COMMANDNAMESPACE	REQUIRESCONVERSATION	SORT BY	MENUTYPE
16	1	ZOOM	Attach Supplemental	AttachSupplemental	YES	2	ZOOM
14	6	ZOOM	Attach Supplemental	AttachSupplemental	YES	2	ZOOM
13	6	ZOOM	Process Batch Invoices	StartInvoiceProcessing	NO	1	ZOOM
10	1	ZOOM	Process Invoices	StartInvoiceProcessing	NO	1	ZOOM
11	1	POST-INSERT	(null)	SaveInvoice	YES	0	(null)
15	6	POST-INSERT	(null)	SaveInvoice	YES	0	(null)



## A.4.4 AXF\_COMMAND\_PARAMETERS Table (Oracle E-Business Suite)

Use the AXF\_COMMAND\_PARAMETERS table to define the information sent for each defined command. Each command may require or omit a different set of parameters.

### Column Description

**Table A-60 Column Description for AXF\_COMMAND\_PARAMETERS Table**

Column	Description
PARAMETERID	Defines a unique ID for the parameter.
EVENTID	Defines a unique ID for the event. Comes from the <a href="#">AXF_COMMANDS Table (Oracle E-Business Suite)</a> .
PARAMETERNAME	The name of the parameter to pass.
DATASOURCENAME	Data Source for the parameter value. You can specify <i>Data</i> or <i>Constant</i> .
DATABLOCKNAME	Data Block of the Form from which the value is fetched.
FIELDNAME	Field Name in the form from which the value is fetched.
CONSTANTVALUE	A constant value for the parameter.

### Example Implementation

The example that follows contains two parameters sent for EventID 2: a constant value (InvoicesByVendor) and a data value (VENDOR\_NAME) in the *INVOICES\_QF* Data Block.

The COMPLETE command requires that a conversation be established between Oracle E-Business Suite and AXF. A Conversation is a session unique ID that allows communication between Oracle E-Business Suite and AXF Framework.

If a command requires a separate window to open, then Oracle E-Business Suite opens another instance of the browser. Users may then take additional steps in the newly created window.

**Table A-61 Example AXF\_COMMAND\_PARAMETERS Table**

PARAMETER ID	EVENTID	PARAMETERNAME	DATASOURCENAME	DATABLOCKNAME	FIELDNAME	CONSTANTVALUE
1	2	SearchName	CONSTANT	(null)	(null)	InvoicesByVendor
2	2	VendorName	DATA	INVOICES_QF	VENDOR_NAME	(null)
18	11	InvoiceTransactionID	DATA	INV_SUM_FOLDER	INVOICE_ID	(null)
21	14	InvoiceTransactionID	DATA	INV_SUM_FOLDER	INVOICE_ID	(null)

Table A-61 (Cont.) Example AXF\_COMMAND\_PARAMETERS Table

PARAMETER ID	EVENTID	PARAMETERNAME	DATASOURCE NAME	DATABLOCK NAME	FIELDNAME	CONSTANTVALUE
20	15	InvoiceTransactionID	DATA	INV_SUM_FOL_DER	INVOICE_ID	(null)
22	16	InvoiceTransactionID	DATA	INV_SUM_FOL_DER	INVOICE_ID	(null)

## A.4.5 AXF\_PROPERTIES Table (Oracle E-Business Suite)

Use the AXF\_PROPERTIES table to define properties for an AXF integration with Oracle E-Business Suite.

### Column Description

Table A-62 Column Description for AXF\_PROPERTIES Table

Column	Description
PROPNAME	<p>Specifies properties to use. Properties include:</p> <ul style="list-style-type: none"> <li>SecureMode: To enable SSL, set this property to ON, and set values for AXFWalletPath and AXFWalletKey properties.</li> <li>AXFWalletPath: Certificate location (path).</li> <li>AXFWalletKey: Specify the key for the AXF wallet password, to be retrieved from the Oracle E-Business Suite vault.</li> <li>AXF_VERSION: Specify 2 for 12c.</li> <li>AXF_SOAP_POLICY: Specify the name of the SOAP policy to use. The currently supported policy is USER_NAME_TOKEN.</li> <li>AXF_SOAP_SECURITY: Specify TRUE (required), which enables SOAP security, as described in <a href="#">Securing Communications Through SOAP Security</a>.</li> <li>AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in <a href="#">Securing Communications Through SOAP Security</a>.</li> <li>AXF_PAPERCLIP: Set to TRUE to enable the paperclip option, or FALSE (default) to disable it. Also see <a href="#">Reenabling Paperclip Attachments (Oracle E-Business Suite and Imaging Only)</a>.</li> <li>AXF_MULTINSTANCE: Allows you to target the same instance/conversation when multiple instances of a particular Oracle E-Business Suite page are displayed. See <a href="#">Targeting a Single Conversation With Multiple Window Instances Displayed</a>. Specify TRUE to treat each Oracle E-Business Suite window as a separate conversation and target a separate Imaging or AXF window. Specify FALSE (default) to treat each Oracle E-Business Suite instance window as the same conversation and use the same Imaging or AXF target window.</li> </ul>
PROPVALUE	Specifies the property's value.

### Example Implementation

This example table shows the default properties values.

**Table A-63 Example AXF\_PROPERTIES Table**

PROPNAME	PROPVALUE
SecureMode	OFF
AXFWalletPath	file:walletpath
AXFWalletKey	AXFWalletKey
AXF_VERSION	2
AXF_SOAP_POLICY	USER_NAME_TOKEN
AXF_SOAP_SECURITY	TRUE
AXF_SOAP_USER	weblogic
AXF_PAPERCLIP	TRUE

## A.5 Oracle PeopleSoft Tables For the BPEL Imaging Solution

Configuring the adapter for Oracle PeopleSoft requires configuring AXF-related tables in Oracle PeopleSoft. For more information, see [Configuring Solutions for Oracle PeopleSoft](#).

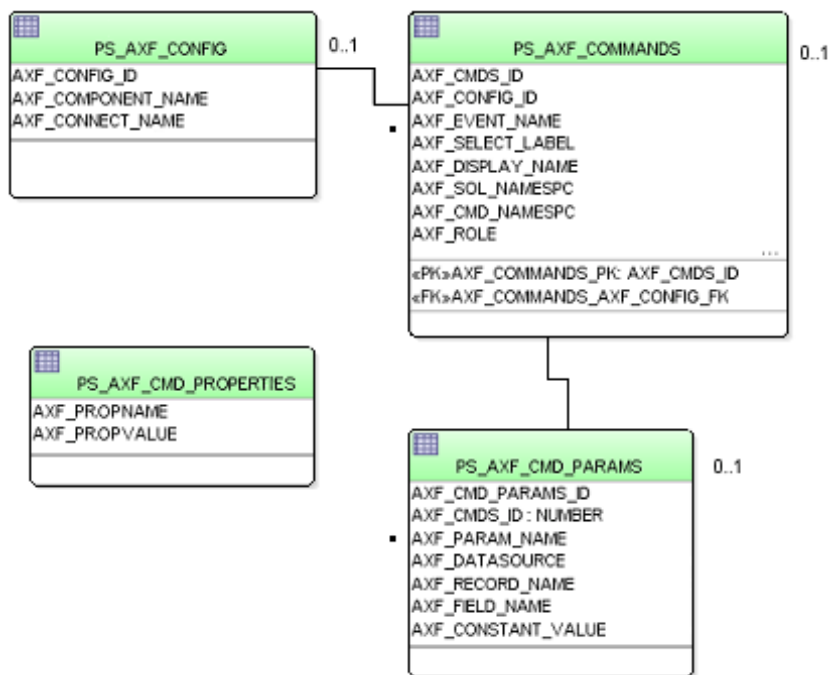
This section covers the following topics:

- [About the Oracle PeopleSoft AXF Tables For the BPEL Imaging Solution](#)
- [PS\\_AXF\\_CONFIG Table](#)
- [PS\\_AXF\\_COMMANDS Table](#)
- [PS\\_AXF\\_COMMAND\\_PARAMS Table](#)
- [PS\\_AXF\\_PROPERTIES Table](#)

### A.5.1 About the Oracle PeopleSoft AXF Tables For the BPEL Imaging Solution

The following diagram shows how the tables used by the Oracle PeopleSoft system in AXF solutions are related.

**Figure A-10 Oracle PeopleSoft AXF Tables For the BPEL Imaging Solution**



**Note:** All AXF table fields require non-null values. You can include a space for fields that do not apply.

## A.5.2 PS\_AXF\_CONFIG Table

Use the PS\_AXF\_CONFIG table to enable the AXF solution on various Oracle PeopleSoft components. This table provides a fine level of granularity when selecting which pages and components to AXF-enable.

Events are automatically invoked when an action is performed on an Oracle PeopleSoft page. The AXF\_PS\_Integration project component catches PRE- and POST- save events and makes them available for customization. You can decide which events to use and how and when to use them.

### Column Description

**Table A-64 Column Description for PS\_AXF\_CONFIG Table**

Column Name	Description
AXF_CONFIG_ID	Specifies the primary key of the table.
AXF_COMPONENT_NAME	Specifies the name of the Oracle PeopleSoft component being enabled.

**Table A-64 (Cont.) Column Description for PS\_AXF\_CONFIG Table**

Column Name	Description
AXF_CONNECT_NAME	Specifies the Oracle PeopleSoft Integration Broker Connection name (service operation to call), as defined in the Oracle PeopleSoft Integration Broker administration interface. The default service operation is AXF_EXECUTE. You can set up and use other connections.
AXF_VERSION	Specifies the AXF version of the connection.

**Example Implementation**

This example defines that the VCHR\_QUICK\_PNL component is AXF-enabled.

**Table A-65 Example PS\_AXF\_CONFIG Table**

AXF_CONFIG_ID	AXF_COMPONENT_NAME	AXF_CONNECT_NAME	AXF_VERSION
1	VCHR_QUICK_PNL	AXF_EXECUTE	12c

### A.5.3 PS\_AXF\_COMMANDS Table

Use the PS\_AXF\_COMMANDS table to describe the actions to take based on user activity. This table works with the [PS\\_AXF\\_CONFIG Table](#).

**Column Description**

**Table A-66 Column Description for PS\_AXF\_COMMANDS Table**

Column Name	Description
AXF_CMDS_ID	Specifies the primary key of the table, used to identify the unique command.
AXF_CONFIG_ID	Specifies the foreign key to the <a href="#">PS_AXF_CONFIG Table</a> , which associates this unique command with a particular page and component.
AXF_EVENT_NAME	Specifies the event being executed. The AXF_EVENT_NAME corresponds to the subpage that is incorporated into an existing Oracle PeopleSoft page, such as the button, link, or menu that is added to an Oracle PeopleSoft page to invoke AXF functionality such as the Image Viewer or Task List. For more information, see <a href="#">Placing AXF Components on Oracle PeopleSoft Pages</a> . Available options include: <ul style="list-style-type: none"> <li>AXF_BUTTON_1, ..., AXF_BUTTON_5</li> <li>AXF_LINK_1, ..., AXF_LINK5</li> <li>AXF_COMBO_1, ..., AXF_COMBO_5</li> <li>SAVE_PRE_CHANGE</li> <li>SAVE_POST_CHANGE</li> </ul>
AXF_SELECT_LABEL	Defines the name displayed on the page for the selection field. This is used only with the COMBO event.
AXF_DISPLAY_NAME	Defines the name of the button or link to display on the Oracle PeopleSoft page.
AXF_SOL_NAMESPC	Identifies the solution namespace for the command to execute.
AXF_CMD_NAMESPC	Identifies the command namespace for the command to execute.

**Table A-66 (Cont.) Column Description for PS\_AXF\_COMMANDS Table**

Column Name	Description
AXF_PSFT_ROLE	Identifies the Oracle PeopleSoft roles with access to the command. It is a comma-delimited list with each role enclosed in single quotes (for example, 'Role1','Role2','Role3').
AXF_SORT_ORDER	Specifies the order of items displayed in a selection field. Sort order applies to selection fields only.
AXF_REQ_CONV	Specifies if a conversation is required to this command before execution. For example, execution of the UpdateTask command requires a conversation be running in order for the user to select a current task.

**Example Implementation**

This example shows two commands added to an invoice processing page. One inserts a button that when clicked initiates invoice processing. The other inserts a link that when clicked initiates a search of Imaging for duplicate invoices.

In addition, the solution has been configured to invoke the SaveInvoice command during the SAVE\_POST\_CHANGE event, which specifies that whenever an action inserts a new Oracle PeopleSoft transaction record, the integration automatically invokes the SaveInvoice command on the back-end, performing the actions associated with the command. Note that SAVE\_POST\_CHANGE is not called by a subsequent save of the same transaction record in Oracle PeopleSoft.

You must specify an Oracle PeopleSoft Role in the AXF\_PSFT\_ROLE field to give permissions to use the commands. If a person does not have proper permissions to use the commands, the commands do not display. If the commands display but do not function, this indicates that the commands are not properly configured.

Fields not shown: AXF\_SELECT\_LABEL=(null), AXF\_SORT\_ORDER=1, AXF\_REQ\_CONV=N

**Table A-67 Example PS\_AXF\_COMMANDS Table**

AXF_CMDS_ID	AXF_CONFIG_ID	AXF_EVENT_NAME	AXF_DISPLAY_NAME	AXF_SOL_NAMESPC	AXF_CMD_NAMESPC	AXF_PSFT_ROLE
1	1	AXF_BUTTON_1	Start Invoice Processing	InvoiceProcessing	StartInvoiceProcessing	'Employee'
2	1	AXF_LINK_1	Search For Duplicates	InvoiceInquiry	SearchIPM	'Employee'
3	1	SAVE_POST_CHANGE	(null)	InvoiceProcessing	SaveInvoice	'Employee'

**A.5.4 PS\_AXF\_COMMAND\_PARAMS Table**

Use the PS\_AXF\_COMMAND\_PARAMS table to specify the information sent for each defined command. Each command may require or omit a different set of parameters.

**Column Description**

**Table A-68 Column Description for AXF\_COMMAND\_PARAMETERS Table**

Column	Description
AXF_CMDS_PARAMS_ID	Specifies the primary key of the table.
AXF_CMDS_ID	Specifies the foreign key to the <a href="#">PS_AXF_COMMANDS Table</a> , which associates the unique parameter with a specific command.
AXF_PARAM_NAME	Defines the parameter name.
AXF_DATASOURCE	Specifies where the parameter value is retrieved. <ul style="list-style-type: none"> <li>DATA: Retrieves the value in Oracle PeopleSoft defined by the AXF_RECORD_NAME and AXF_FIELD_NAME fields.</li> <li>CONSTANT: Uses the value defined in the AXF_CONSTANT_VALUE field.</li> </ul>
AXF_RECORD_NAME	Identifies the record of the field in the Oracle PeopleSoft page to use as the target value to retrieve when AXF_DATASOURCE is set to DATA.
AXF_FIELD_NAME	Used as the target value when AXF_DATASOURCE is set to DATA.
AXF_CONSTANT_VALUE	Used as the constant value when AXF_DATASOURCE is set to CONSTANT.

**Example Implementation**

The example that follows contains three parameters sent for AXF\_CMDS\_ID 2: a constant value (SearchName) and two data values (INVOICENUMBER and InvoiceTransactionID).

**Table A-69 Example PS\_AXF\_COMMAND\_PARAMS Table**

AXF_CMDS_PARAMS_ID	AXF_CMDS_ID	AXF_PARAM_NAME	AXF_DATA_SOURCE	AXF_RECORD_NAME	AXF_FIELD_NAME	AXF_CONSTANT_VALUE
1	2	SearchName	CONSTANT	(null)	(null)	SearchByInvoiceID
2	2	INVOICENUMBER	DATA	VCHR_HDR_Q	INVOICE_ID	(null)
3	3	InvoiceTransactionID	DATA	VCHR_HDR_Q	VOUCHER_ID	(null)

## A.5.5 PS\_AXF\_PROPERTIES Table

Use the PS\_AXF\_PROPERTIES table to define properties for an AXF integration with Oracle PeopleSoft. See [Resizing Oracle PeopleSoft Popup Solution Windows](#).

**Column Description**

**Table A-70 Column Description for PS\_AXF\_PROPERTIES Table**

Column	Description
AXF_PROPNAME	Specifies properties to use. Properties include: <ul style="list-style-type: none"> <li>WINDOW_HEIGHT: Specify the popup window's height in pixels. (This refers to any popup window that displays as part of the solution.)</li> <li>WINDOW_WIDTH: Specify the popup window's width in pixels.</li> </ul>
AXF_PROPVALUE	Specifies the property's value.

**Example Implementation**

This example table shows the default properties values.

**Table A-71 Example PS\_AXF\_PROPERTIES Table**

AXF_PROPNAME	AXF_PROPVALUE
WINDOW_HEIGHT	600
WINDOW_WIDTH	800



# B

## Managed Attachments Solution Reference

With the Application Adapters for Oracle WebCenter, you can configure AXF, Oracle E-Business Suite, Oracle PeopleSoft, and Content Server configuration tables for the Managed Attachments solution.

This appendix covers the following topics:

- [AXF Tables For the Managed Attachments Solution](#)
- [Oracle E-Business Suite Forms Tables For the Managed Attachments Solution](#)
- [Oracle E-Business Suite OAF Tables For the Managed Attachments Solution](#)
- [Oracle PeopleSoft Tables For the Managed Attachments Solution](#)
- [Content Server Tables For the Managed Attachments Solution](#)

Many of the Managed Attachments tables are automatically populated during the business application plug-in configuration (see [Configuring the Oracle E-Business Suite Plug-In](#) or [Configuring the Oracle PeopleSoft Plug-In](#)) and Managed Attachments configuration (see [Configuring the Managed Attachments Solution](#)). This appendix describes how to configure additional pages for Managed Attachments or to make changes to the tables if needed.

### B.1 AXF Tables For the Managed Attachments Solution

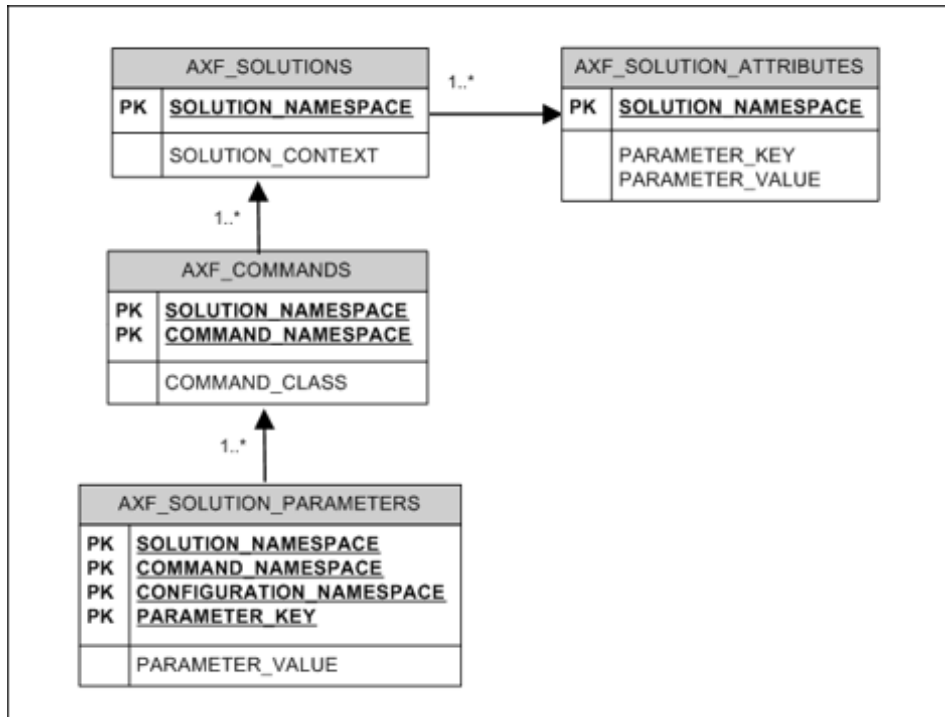
Application Extension Framework (AXF) tables define the solution, its system parameters, and the GrantAccess command used.

 **Note:**

If modifying AXF table values in a running system, either execute Clear DB Cache from the Driver page or restart the AXF application within the Application Server for the changes to take effect. For information about the driver page, see Verifying the AXF for BPEL Installation and Configuration with HelloWorld in *Installing and Configuring Oracle WebCenter Content*.

The diagram that follows displays the AXF configuration tables used for the Managed Attachments solution and their relationships.

**Figure B-1 AXF Tables For the Managed Attachments Solution**



AXF Table	Description
<a href="#">AXF_SOLUTIONS Table</a>	Defines AXF solutions and general parameters for infrastructure, services, and solutions.
<a href="#">AXF_SOLUTION_ATTRIBUTES Table</a>	
<a href="#">AXF_COMMANDS Table</a>	Defines AXF commands within solutions.
<a href="#">AXF_SOLUTION_PARAMETERS Table</a>	Defines parameters for AXF commands.

### B.1.1 AXF\_SOLUTIONS Table

The AXF\_SOLUTIONS table defines the solutions used by AXF. It links to the [AXF\\_COMMANDS Table](#) through the SOLUTION\_NAMESPACE column.

#### Column Description

**Table B-1 Column Description for AXF\_SOLUTIONS Table**

Column	Description
SOLUTION_CONTEXT	Defines the JNDI name of the AXF solution implementation. (Currently, AxfCommandMediator is the only solution implementation.)
SOLUTION_NAMESPACE	Defines the AXF solution name.

#### Example Implementation

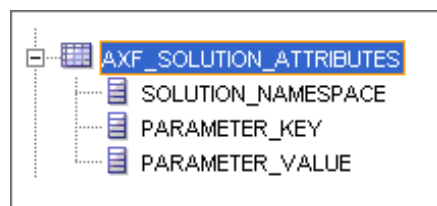
This example shows the Managed Attachments solution defined, using AxfCommandMediator as its solution implementation.

**Table B-2 Example AXF\_SOLUTIONS Table**

SOLUTION_NAMESPACE	SOLUTION_CONTEXT
UCM_Managed_Attachment	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

## B.1.2 AXF\_SOLUTION\_ATTRIBUTES Table

This table defines general attributes for use by infrastructure, services, or solutions.



### Column Description

**Table B-3 Column Description for AXF\_SOLUTION\_ATTRIBUTES Table**

Column	Description
SOLUTION_NAMESPACE	Specifies the solution namespace that uses this parameter.
PARAMETER_KEY	Name of the parameter. Used when retrieving the parameter value from the database. Applicable parameters include: <ul style="list-style-type: none"> <li>USERNAME_PASS_THROUGH: When set to FALSE for an imaging solution, this parameter allows an authenticated Oracle WebLogic Server user to perform tasks, such as BPEL tasks, rather than the user passed from Oracle E-Business Suite or Oracle PeopleSoft. Note that this parameter must be set to TRUE for Managed Attachments configurations. See <a href="#">Restoring Business Application User Pass Through for Managed Attachments</a>.</li> </ul>
PARAMETER_VALUE	Value of the parameter.

### Example Implementation

This example table sets solution attributes for the Managed Attachments solution.

**Table B-4 Example AXF\_SOLUTION\_ATTRIBUTES Table**

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_Attachments	USERNAME_PASS_THROUGH	TRUE

## B.1.3 AXF\_COMMANDS Table

This table defines AXF commands and their java classes for the solution. Each command's parameters are configured in the [AXF\\_SOLUTION\\_PARAMETERS Table](#).

### Column Description

**Table B-5 Column Description for AXF\_COMMANDS Table**

Column	Description
SOLUTION_NAMESPACE	The name of the solution, as defined in the <a href="#">AXF_SOLUTIONS Table</a> .
COMMAND_NAMESPACE	Defines the unique name of the command within the solution.
COMMAND_CLASS	The fully qualified class name in which the command is defined. This class is loaded and the execute() method representing the command is executed.

### Example Implementation

This example shows the Managed Attachments command defined for the Managed Attachments solution.

**Table B-6 Example AXF\_COMMANDS Table**

SOLUTION_NAMESPACE	COMMAND_CLASS	COMMAND_NAMESPACE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_Managed_Attachments

## B.1.4 AXF\_SOLUTION\_PARAMETERS Table

This table defines command parameters for the solution and AXF command.

### Column Description

**Table B-7 Column Description for AXF\_SOLUTION\_PARAMETERS Table**

Column	Description
SOLUTION_NAMESPACE	Identifies the solution namespace, as defined in the <a href="#">AXF_SOLUTIONS Table</a> .
COMMAND_NAMESPACE	Specifies the command name, as defined in the <a href="#">AXF_COMMANDS Table</a> .
CONFIGURATION_NAMESPACE	Used to implement the command. Specify the complete package name of the implementation class. This namespace path provides the physical Java class to instantiate. The namespace also differentiates commands within the same solution namespace.

**Table B-7 (Cont.) Column Description for AXF\_SOLUTION\_PARAMETERS Table**

Column	Description
PARAMETER_KEY	<p>Specifies the parameter key to use in the AXF command. Parameters include:</p> <ul style="list-style-type: none"> <li>• RIDC_CONNECTION_STR: Specifies the RIDC connection string used to execute the AF_GRANT_ACCESS Content Server service. Includes the host name or IP address of the system on which Content Server is running, and the Content Server port that receives RIDC calls. (To find the value for the Content Server port, locate the IntradocServerPort config value in config.cfg.)</li> <li>• UCM_CONNECTION_STR: Specifies the base URL that executes the Content Server attachments framework search, which lists associated documents. This parameter also sets the following values: Host name or IP address of the system on which Content Server is running Port on which the web server is listening. Content Server profile (default profile is <b>EBSProfile</b> or <b>PSFTProfile</b>. If using the universal adapter described in <a href="#">Configuring the Enterprise Application Adapter Framework</a>, specify <b>UniversalProfile</b>.) GET_SEARCH_RESULTS_FORCELOGIN service ResultTemplate (default template is <b>EBS_LIST</b> or <b>PSFT_LIST</b>. If using the universal adapter described in <a href="#">Configuring the Enterprise Application Adapter Framework</a>, use <b>UNIVERSAL_LIST</b>).</li> <li>• UCM_ADMIN_USER: Specifies the administrative Content Server user that executes the AF_GRANT_ACCESS service for the user logged into the business application.</li> <li>• MA_CSF_KEY: Stores the admin user credentials in the credential store framework (CSF) using a configurable key name. You can change the key name if needed. The same key name is used to create the credential in CSF, as described in <a href="#">Configuring a CSF Credential for Managed Attachments</a>.</li> </ul>
PARAMETER_VALUE	Specifies the value of the parameter key.

**Example Implementation**

These examples define the UCM\_Managed\_Attachments command for the UCM\_Managed\_Attachments solution. [Table B-8](#) provides an Oracle E-Business Suite example and [Table B-9](#) provides an Oracle PeopleSoft example. These values were set in [Configuring Elements for UCM Web Service Implementation of Managed Attachments](#) and [Configuring Communication for Managed Attachments Web Service](#) respectively.

- The first row specifies the RIDC connection string that executes the AF\_GRANT\_ACCESS Content Server service.

- The second row specifies the Managed Attachments URL that invokes the Content Server attachments framework search.
- The third row specifies the Content Server administrative user who runs the AF\_GRANT\_ACCESS service; this user name is dynamically retrieved.
- The fourth row specifies the CSF key. The username stored in the CSF is compared with the username value in the incoming request from the business application.

Fields not shown: SOLUTION\_NAMESPACE=UCM\_Managed\_Attachments

**Table B-8 Example AXF\_SOLUTION\_PARAMETERS Table for Oracle E-Business Suite Managed Attachments Solution (AXF for BPEL)**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	RIDC_CONNECTIO N_STR	<i>idc://Content Server host name or IP address:Content Server RIDC port</i>
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_CONNECTIO N_STR	<i>http://Content Server Host name or IP address: Content Server Port/cs/ idcplg/_p/min/af/ trigger-EBSProfile? IdcService=GET_SEARC H_RESULTS_FORCELOGIN &amp;ResultTemplate=EBS_ LIST</i>
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_ADMIN_USE R	<i>Content Server admin user</i>
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	MA_CSF_KEY	MA_CSF_KEY

**Table B-9 Example AXF\_SOLUTION\_PARAMETERS Table for Oracle PeopleSoft Managed Attachments Solution (AXF for BPEL)**

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	RIDC_CONNECTIO N_STR	<i>idc://Content Server host name or IP address:Content Server RIDC port</i>
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_CONNECTIO N_STR	<i>http://Content Server Host name or IP address: Content Server Port/cs/ idcplg/_p/min/af/ trigger-PSFTProfile? IdcService=GET_SEARC H_RESULTS_FORCELOGIN &amp;ResultTemplate=PSFT _LIST</i>

**Table B-9 (Cont.) Example AXF\_SOLUTION\_PARAMETERS Table for Oracle PeopleSoft Managed Attachments Solution (AXF for BPEL)**

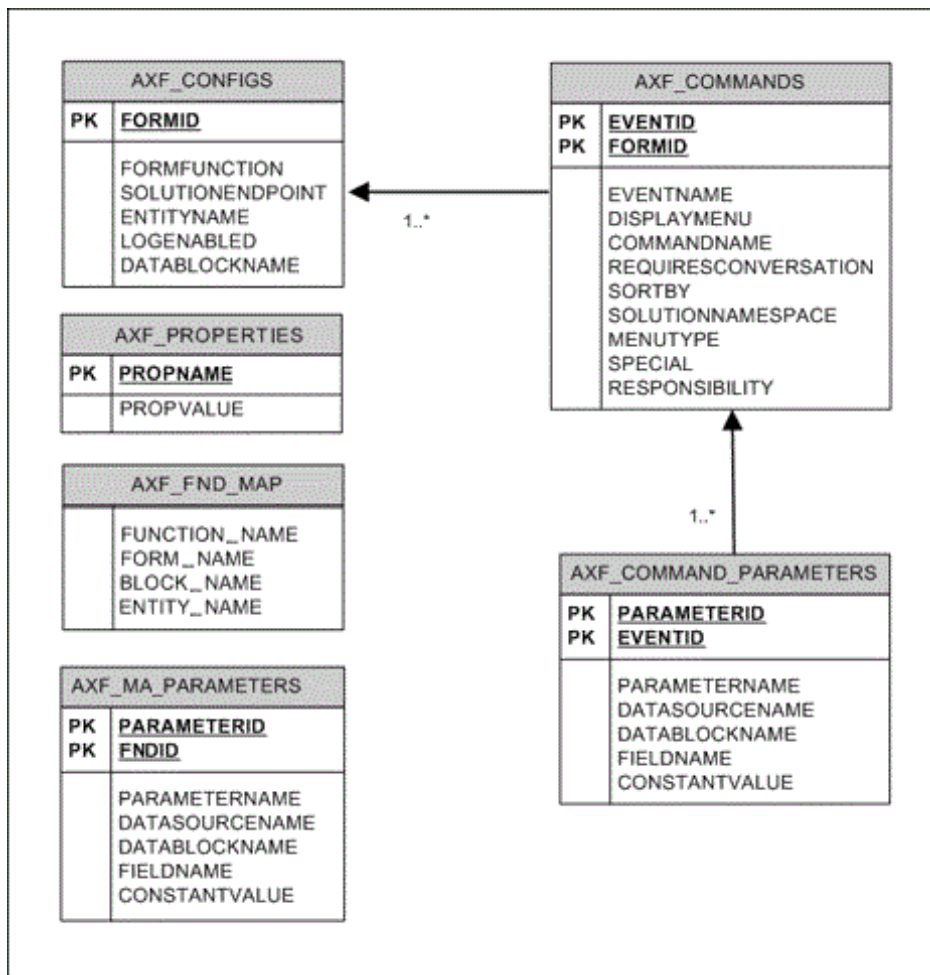
COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm. AfGrantAccessCommand	UCM_ADMIN_USE R	<i>Content Server admin user</i>
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm. AfGrantAccessCommand	MA_CSF_KEY	MA_CSF_KEY

## B.2 Oracle E-Business Suite Forms Tables For the Managed Attachments Solution

Oracle E-Business Suite Forms tables define how the Managed Attachments page is activated through the Zoom menu on selected Oracle E-Business Suite forms. Each Oracle E-Business Suite form enabled for the AF integration requires an AXF Oracle E-Business Suite configuration that defines a Zoom Menu item with the label Managed Attachments and a set of parameters that include the Oracle E-Business Suite instance name, business object type, business object key(s), and user friendly description of the business object instance.

The diagram that follows displays the Oracle E-Business Suite Forms configuration tables used for the Managed Attachments solution and their relationships.

**Figure B-2 Oracle E-Business Suite Forms Tables For the Managed Attachments Solution**



Oracle E-Business Suite Forms Tables	Description
<a href="#">AXF_CONFIGS Table (Oracle E-Business Suite Forms)</a>	Enables the AXF solution on various Oracle E-Business Suite Forms.
<a href="#">AXF_PROPERTIES Table (Oracle E-Business Suite Forms)</a>	Defines properties for AXF integration for Oracle E-Business Suite.
<a href="#">AXF_FND_MAP Table (Oracle E-Business Suite Forms)</a>	Defines Oracle E-Business Suite form values to pass to the AfGrantAccessCommand when a user activates the Managed Attachments functionality from an Oracle E-Business Suite form.
<a href="#">AXF_COMMANDS Table (Oracle E-Business Suite Forms)</a>	Describes the actions to take based on user activity.
<a href="#">AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite Forms)</a>	Defines the information sent for the AfGrantAccess command.



Oracle E-Business Suite Forms Tables	Description
<a href="#">AXF_MA_PARAMETERS Table (Oracle E-Business Suite Forms)</a>	Defines the information sent for additional parameters for Managed Attachments.

## B.2.1 AXF\_CONFIGS Table (Oracle E-Business Suite Forms)

Use the AXF\_CONFIGS table to enable the AXF solution on various Oracle E-Business Suite Forms. This table provides a fine level of granularity when selecting which forms to AXF-enable.

When an action occurs, the customized code launches the specified solution and command configured for the event. When configured for the Oracle E-Business Suite adapter for Content Server, this table invokes the AfGrantAccess command.

### Column Description

**Table B-10 Column Description for AXF\_CONFIGS Table**

Column Name	Description
FORMID	Specifies the primary key of the table.
FORMFUNCTION	Distinguishes each Oracle E-Business Suite Form based on the form's functionality.
SOLUTIONENDPOINT	Specifies a URL to AXF, and defines if using the AXF for BPEL infrastructure.  This value should start as <code>https://</code> if SecureMode is on. See <a href="#">Securing Communications Through SSL (Oracle E-Business Suite)</a> .
ENTITYNAME	Used by the attachment functionality as a unique name, which links attachments to the correct Forms.
LOGENABLED	Enables or disables the log for the specified form. See <a href="#">Configuring Oracle E-Business Suite Logging</a> . Specify one of the following: <ul style="list-style-type: none"> <li>1/TRUE/YES</li> <li>0/FALSE/NO</li> </ul>
DATABLOCKNAME	Specify the data block on the form to enable.  Note that you can also specify <code>AXF_DEFAULT</code> to enable all data blocks on the form.  A Form may be reused by Oracle E-Business Suite (for example, Invoice Entry and Invoice Query); the FORMFUNCTION and DATABLOCKNAME together uniquely identify each form.

### Example Implementation

These examples define the AfGrantAccess command in the AXF\_CONFIGS table for a form.

Fields not shown: ENTITYNAME=(null), LOGENABLED=YES, and DATABLOCKNAME=(null)

**Table B-11 Example AXF\_CONFIGS Table (AXF for BPEL)**

FORMID	FORMFUNCTION	SOLUTIONENDPOINT
1	AXF_MANAGED_ATTACHMENTS	https:// ApplicationServerName:Port/ axf-ws/ AxfSolutionMediatorService

## B.2.2 AXF\_PROPERTIES Table (Oracle E-Business Suite Forms)

Use the AXF\_PROPERTIES table to define properties for AXF integration for Oracle E-Business Suite. You can also use its AXF\_PAPERCLIP property to enable or disable the paperclip (display attached document) feature, as described in [Enabling the Paperclip with Attachments \(Oracle E-Business Suite Forms Only\)](#).

### Column Description

**Table B-12 Column Description for AXF\_PROPERTIES Table (Oracle E-Business Suite)**

Column	Description
PROPNAME	Specifies properties to use. Properties include: <ul style="list-style-type: none"> <li>SecureMode: To enable SSL, set this property to ON, and set values for AXFWalletPath and AXFWalletKey properties.</li> <li>AXFWalletPath: Certificate location (path).</li> <li>AXFWalletKey: Specify the key for the AXF wallet password, to be retrieved from the Oracle E-Business Suite vault.</li> <li>AXF_VERSION: Specify 2 for 12c.</li> <li>AXF_SOAP_POLICY: Specify the name of the SOAP policy to use. The currently supported policy is USER_NAME_TOKEN.</li> <li>AXF_SOAP_SECURITY: Specify TRUE to enable SOAP security, as described in <a href="#">Securing Communications Through SOAP Security</a>. This setting is required.</li> <li>AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in <a href="#">Securing Communications Through SOAP Security</a>.</li> <li>AXF_PAPERCLIP: Set to TRUE to enable the Oracle E-Business Suite native attachments paperclip option, or FALSE (default) to disable it. See <a href="#">Enabling the Paperclip with Attachments (Oracle E-Business Suite Forms Only)</a>.</li> </ul>
PROPVALUE	Specifies the property's value.

### Example Implementation

This example table shows the default properties values.

**Table B-13 Example AXF\_PROPERTIES Table**

PROPNAME	PROPVALUE
SecureMode	OFF
AXFWalletPath	file:walletpath

**Table B-13 (Cont.) Example AXF\_PROPERTIES Table**

PROPNAME	PROPVALUE
AXFWalletKey	AXFWalletKey
AXF_VERSION	2
AXF_SOAP_POLICY	USER_NAME_TOKEN
AXF_SOAP_SECURITY	TRUE
AXF_SOAP_USER	weblogic
AXF_PAPERCLIP	FALSE

## B.2.3 AXF\_FND\_MAP Table (Oracle E-Business Suite Forms)

This table relates to an Oracle E-Business Suite form's values passed to the AfGrantAccessCommand when a user activates the Managed Attachments functionality from an Oracle E-Business Suite form. The adapter looks up values for the Oracle E-Business Suite form in this table and passes them to the AfGrantAccessCommand for executing the Content Server AF\_GRANT\_ACCESS service and attachments framework search.

### Column Description

**Table B-14 Column Description for AXF\_FND\_MAP Table**

Column	Description
FUNCTION_NAME	Defines the Oracle E-Business Suite Form based on its functionality.
FORM_NAME	Defines the name of the Oracle E-Business Suite form to enable.
BLOCK_NAME	Defines the data block on the form to enable.
ENTITY_NAME	Used by the attachment functionality as a unique name, which links attachments to the correct forms.

### Example Implementation

The AXF\_FND\_MAP example that follows displays fields configured for the AfGrantAccess command for the Invoice Entry form.

**Table B-15 Example Implementation for AXF\_FND\_MAP Table**

FUNCTION_NAME	FORM_NAME	BLOCK_NAME	ENTITY_NAME
AP_APXINWKB	APXINWKB	INV_SUM_FOL DER	AP_INVOICES

## B.2.4 AXF\_COMMANDS Table (Oracle E-Business Suite Forms)

Use the AXF\_COMMANDS table to describe the actions to take based on user activity. This table works with the [AXF\\_CONFIGS Table \(Oracle E-Business Suite Forms\)](#).

### Column Description

**Table B-16 Column Description for AXF\_COMMANDS Table**

Column Name	Description	Nullable
FORMID	Links to the <a href="#">AXF_CONFIGS Table (Oracle E-Business Suite Forms)</a> .	No
EVENTID	Primary key of the table.	Yes
EVENTNAME	Name of the Event command to invoke (ZOOM for this adapter).	Yes
DISPLAYMENU	Displays text of the menu for the command.	Yes
COMMANDNAMESPACE	Request command to pass to the back-end when a user selects the menu.	Yes
REQUIRESCONVERSATION	Indicates if the command requires a valid conversation or not. For this adapter, this value must be NO.	Yes
SORTBY	Order in which the menu is displayed.	Yes
SOLUTIONNAMESPACE	Name of the solution.	Yes
MENUTYPE	Specify the menu type to display to users in Oracle E-Business Suite. ZOOM displays a Zoom menu in the toolbar.	Yes
SPECIAL	Create new menu entries by entering a unique number for the Special type menu. (Not applicable for this adapter.)	Yes
RESPONSIBILITY	Use this column to filter the menu options based on user responsibility. Enter a value to display the menu only to end users with responsibilities associated with that value. (Not applicable for this adapter.)	Yes

#### Example Implementation

The example AXF\_COMMANDS table that follows displays fields for an AfGrantAccess command configuration for the Invoice Entry form.

Fields not shown: SPECIAL=(null), RESPONSIBILITY=(null)

**Table B-17 Example AXF\_COMMANDS Table for Invoice Entry Form**

EVENT ID	FORM ID	EVENT NAME	DISPLAY MENU	COMMAND NAMESPACE	REQUIRES CONVERSATION	SORTBY	SOLUTION NAMESPACE	MENU TYPE
8	1	ZOOM	Managed Attachments	UCM_Managed_Attachment	NO	3	UCM_Managed_Attachments	ZOOM

## B.2.5 AXF\_COMMAND\_PARAMETERS Table (Oracle E-Business Suite Forms)

Use the AXF\_COMMAND\_PARAMETERS table to define the information sent for each defined command. Each command may require or omit a different set of parameters.

### Column Description

**Table B-18 Column Description for AXF\_COMMAND\_PARAMETERS Table**

Column	Description
PARAMETERID	Defines a unique ID for the parameter.
EVENTID	Defines a unique ID for the event. Comes from the <a href="#">AXF_COMMANDS Table (Oracle E-Business Suite Forms)</a> .
PARAMETERNAME	The name of the parameter to pass, where: <ul style="list-style-type: none"> <li>application: Specifies the business application, as defined in the <a href="#">AFObjets Table</a>. This name/value pair is passed as a configuration parameter to the Content Server AF_GRANT_ACCESS service and attachments framework search.</li> <li>extraParamName: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See <a href="#">Passing Extra Metadata Values From a Business Application to Content Server</a>.</li> </ul>
DATASOURCENAME	Data Source for the parameter value. You can specify <i>Data</i> or <i>Constant</i> .
DATABLOCKNAME	Data Block of the Form from which the value is fetched
FIELDNAME	Field Name in the form from which the value is fetched.
CONSTANTVALUE	Must be set to a value that uniquely identifies the Oracle E-Business Suite instance.

### Example Implementation

The AXF\_COMMAND\_PARAMETERS example that follows displays fields configured for the AfGrantAccess command for the Invoice Entry form. The second example row passes a context value, as described in [Customizing Settings Based on Users' Business Context](#). Note that you can specify a value using a constant value or a data block/fieldname.

**Table B-19 Example AXF\_COMMAND\_PARAMETERS Table for 12c**

PARAMETER ID	EVENTID	PARAMETERNAME	DATASOURCE NAME	DATABLOCK NAME	FIELDNAME	CONSTANT VALUE
1	8	application	CONSTANT	(null)	(null)	EBS_instanc eA
2		businessObjectConte xt	CONSTANT			ScanContext

## B.2.6 AXF\_MA\_PARAMETERS Table (Oracle E-Business Suite Forms)

Use the AXF\_MA\_PARAMETERS table to define the information sent for additional parameters for Managed Attachments.

### Column Description

**Table B-20 Column Description for AXF\_MA\_PARAMETERS Table**

Column	Description
PARAMETERID	Defines a unique ID for the parameter.
FNDID	Defines a unique ID for the fnd map table. Comes from the <a href="#">AXF_FND_MAP Table (Oracle E-Business Suite Forms)</a> .
PARAMETERNAME	The name of the parameter to pass, where: <ul style="list-style-type: none"> <li>application: Specifies the business application, as defined in the <a href="#">AFOjects Table</a>. This name/value pair is passed as a configuration parameter to the Content Server AF_GRANT_ACCESS service and attachments framework search.</li> <li>extraParamName: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See <a href="#">Passing Extra Metadata Values From a Business Application to Content Server</a>.</li> </ul>
DATASOURCENAME	Data Source for the parameter value. You can specify <i>Data</i> or <i>Constant</i> .
DATABLOCKNAME	Data Block of the Form from which the value is fetched
FIELDNAME	Field Name in the form from which the value is fetched.
CONSTANTVALUE	Must be set to a value that uniquely identifies the Oracle E-Business Suite instance.

### Example Implementation

The AXF\_MA\_PARAMETERS example that follows displays fields configured for the AfGrantAccess command for the Invoice Entry form.

**Table B-21 Example AXF\_MA\_PARAMETERS Table**

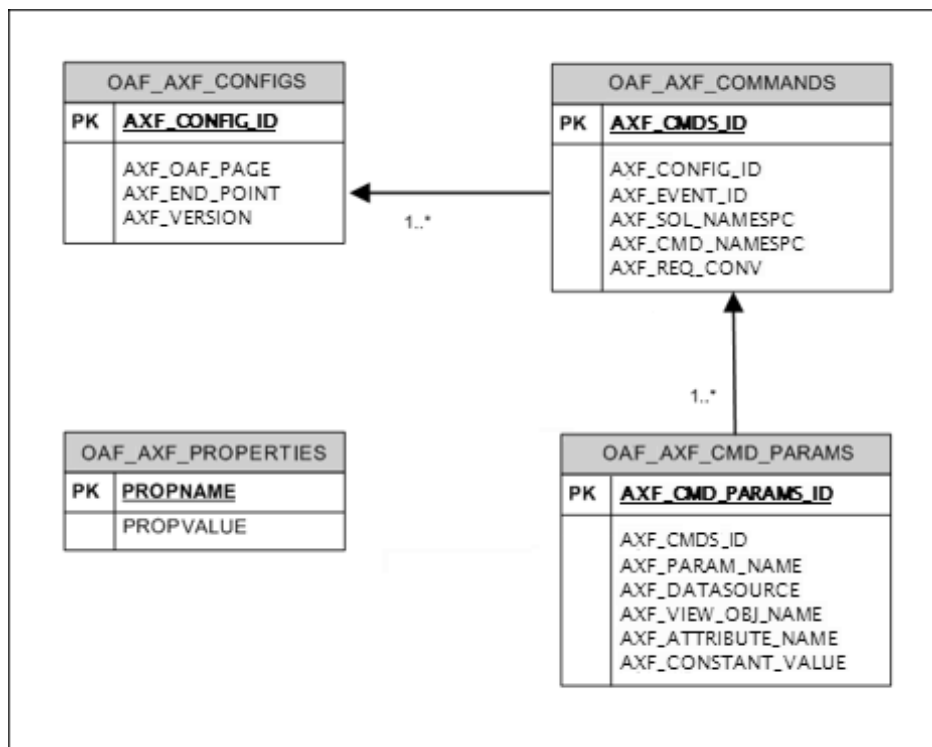
PARAMETERID	FNDID	PARAMETERNAME	DATASOURCE NAME	DATABLOCK NAME	FIELDNAME	CONSTANT VALUE
1	5	Company	CONSTANT	(null)	(null)	MyCompany

## B.3 Oracle E-Business Suite OAF Tables For the Managed Attachments Solution

Oracle E-Business Suite OAF tables define how the Managed Attachments page is activated through a button added via personalization to selected OAF pages, which redirects to the Managed Attachments URL in Content Server.

The diagram that follows displays the Oracle E-Business Suite OAF configuration tables used for the Managed Attachments solution and their relationships.

**Figure B-3 Oracle E-Business Suite OAF Tables For the Managed Attachments Solution**



Oracle E-Business Suite OAF Table	Description
<a href="#">OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF)</a>	Enables the AXF solution on various Oracle E-Business Suite OAF pages.
<a href="#">OAF_AXF_PROPERTIES Table (Oracle E-Business Suite OAF)</a>	Defines properties for AXF integration for Oracle E-Business Suite.
<a href="#">OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF)</a>	Describes the actions to take based on user activity.
<a href="#">OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF)</a>	Defines the information sent for the AfGrantAccess command.

### B.3.1 OAF\_AXF\_CONFIGS Table (Oracle E-Business Suite OAF)

Use the OAF\_AXF\_CONFIGS table to store the AXF endpoints for a particular OAF page. You can define multiple endpoints for the same page.

When an action occurs, the customized code launches the specified solution and command configured for the event. When configured for the Oracle E-Business Suite adapter for Content Server, this table invokes the AfGrantAccess command.

### Column Description

**Table B-22 Column Description for OAF\_AXF\_CONFIGS Table**

Column Name	Description
AXF_CONFIG_ID	Specifies the primary key of the table.
AXF_OAF_PAGE	Specifies the full path name of the Oracle E-Business Suite OAF page. See <a href="#">Identifying Key Values for Your OAF Pages</a> .
AXF_END_POINT	Specifies a URL to the AXF endpoint to which to connect. This value should start as <code>https://</code> if SecureMode is on. See <a href="#">Securing Communications Through SSL (Oracle E-Business Suite)</a> .
AXF_VERSION	Specifies the AXF version of the connection, where 2 indicates 12c.

**Table B-23 Column Description for OAF\_AXF\_CONFIGS Table**

Column Name	Description
AXF_CONFIG_ID	Specifies the primary key of the table.
AXF_OAF_PAGE	Specifies the full path name of the Oracle E-Business Suite OAF page. See <a href="#">Identifying Key Values for Your OAF Pages</a> .
AXF_END_POINT	Specifies a URL to the AXF endpoint to which to connect. This value should start as <code>https://</code> if SecureMode is on. See <a href="#">Securing Communications Through SSL (Oracle E-Business Suite)</a> .
AXF_VERSION	Specifies the AXF version of the connection, where 2 indicates 12c.

### Example Implementation

This example enables the AXF solution on the specified Oracle E-Business Suite OAF pages. Notice that the first two rows show two commands for the same page, each pointing to a different endpoint. These commands should be configured to perform different operations, such as a Managed Attachments button and an Invoice Processing button. (Note that it is recommended to place only one Managed Attachments button on an OAF page.)

Field not shown: AXF\_VERSION=2

**Table B-24 Example OAF\_AXF\_CONFIGS Table**

AXF_CONFIG_ID	AXF_OAF_PAGE	AXF_END_POINT
1	/oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG	http://ImagingServerHostname1:Port1/axf- ws/AxfSolutionMediatorService
2	/oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG	http://ImagingServerHostname2:Port2/axf- ws/AxfSolutionMediatorService



Table B-24 (Cont.) Example OAF\_AXF\_CONFIGS Table

AXF_CONFIG_ID	AXF_OAF_PAGE	AXF_END_POINT
3	/oracle/apps/po/document/order/webui/OrderPG	http://ImagingServerHostname1:Port1/axfws/AxfSolutionMediatorService
4	/oracle/apps/pos/changeorder/webui/PosViewPOPG	http://ImagingServerHostname1:Port1/axfws/AxfSolutionMediatorService
5	/oracle/apps/pos/supplier/webui/QuickUpdatePG	http://ImagingServerHostname1:Port1/axfws/AxfSolutionMediatorService
6	/oracle/apps/pon/negotiation/creation/webui/ponDefineHdrPG	http://ImagingServerHostname1:Port1/axfws/AxfSolutionMediatorService
7	/oracle/apps/pon/negotiation/creation/webui/ponItemHeaderPG	http://ImagingServerHostname1:Port1/axfws/AxfSolutionMediatorService
8	/oracle/apps/pa/project/webui/ProjAttachmentPG	http://ImagingServerHostname1:Port1/axfws/AxfSolutionMediatorService

## B.3.2 OAF\_AXF\_PROPERTIES Table (Oracle E-Business Suite OAF)

Use the OAF\_AXF\_PROPERTIES table to define properties for AXF integration for Oracle E-Business Suite OAF applications.

### Column Description

Table B-25 Column Description for OAF\_AXF\_PROPERTIES Table (Oracle E-Business Suite)

Column	Description
PROPNAME	<p>Specifies properties to use. Properties include:</p> <ul style="list-style-type: none"> <li>SecureMode: To enable SSL, set this property to ON, and set values for AXFWalletPath and AXFWalletKey properties.</li> <li>AXFWalletPath: Certificate location (path).</li> <li>AXFWalletKey: Specify the key for the AXF wallet password, to be retrieved from the Oracle E-Business Suite vault.</li> <li>AXF_SOAP_POLICY: Specify the name of the SOAP policy to use. The currently supported policy is USER_NAME_TOKEN.</li> <li>AXF_SOAP_SECURITY: Specify TRUE to enable SOAP security, as described in <a href="#">Securing Communications Through SOAP Security</a>. This setting is required.</li> <li>AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in <a href="#">Securing Communications Through SOAP Security</a>.</li> <li>AXF_OAF_REDIRECT_PAGE_URL: Specifies the URL to the custom intermediate OAF page. This URL is configured in <a href="#">Compiling Java Files_ Copying Class Files_ and Importing XML Files</a>. It begins with https:// if SSL is configured on the Oracle E-Business Suite instance.</li> </ul>
PROPVVALUE	Specifies the property's value.

### Example Implementation

This example table shows the default properties values.

**Table B-26 Example OAF\_AXF\_PROPERTIES Table**

PROPNAME	PROPVALUE
SecureMode	OFF
AXFWalletPath	file:walletpath
AXFWalletKey	AXFWalletKey
AXF_SOAP_POLICY	USER_NAME_TOKEN
AXF_SOAP_SECURITY	TRUE
AXF_SOAP_USER	weblogic
AXF_OAF_REDIRECT_PA GE_URL	http://EBS Host : EBS Port/OA_HTML/OA.jsp?page=/oracle/ apps/ak/ucm/axf/webui/RedirectToAxfPG

### B.3.3 OAF\_AXF\_COMMANDS Table (Oracle E-Business Suite OAF)

This table stores the different commands configured for a particular OAF page. Each command is associated with an EVENT\_ID, which refers to the ID of the button/link embedded on an OAF page via personalization (configured in [Configuring Oracle Application Framework \(OAF\) Pages Via Personalization](#)).

#### Column Description

**Table B-27 Column Description for OAF\_AXF\_COMMANDS Table**

Column Name	Description
AXF_CMDS_ID	Specifies the primary key of the table, used to identify the unique command.
AXF_CONFIG_ID	Specifies the foreign key to the <a href="#">OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF)</a> , which associates this unique command with a particular page and component on the page.
AXF_EVENT_ID	Specifies the event being executed in the user interface. The AXF_EVENT_ID corresponds to the ID for the button or link added via personalization to invoke AXF functionality. Available options include: <ul style="list-style-type: none"> <li>• MAButton (for Managed Attachments)</li> <li>• IPM_BUTTON (for imaging)</li> </ul>
AXF_SOL_NAMESPC	Identifies the solution namespace for the command to execute.
AXF_CMD_NAMESPC	Identifies the command namespace for the command to execute.
AXF_REQ_CONV	Specifies if a conversation is required for this command before execution.

#### Example Implementation

This example shows the UCM\_Managed\_Attachments command defined for multiple OAF pages. Each command is associated with an EVENT\_ID, which refers to the ID of the button/link embedded on an OAF page via personalization. Notice that the second row configures an Imaging (IPM) button that links to the SupplierMaintenance command of the Imaging solution; this type of configuring is described in [Configuring Other Services on OAF Pages \(Optional\)](#).

Field not shown: AXF\_REQ\_CONV=N

**Table B-28 Example OAF\_AXF\_COMMANDS Table**

AXF_CMDS_ID	AXF_CONFIG_ID	AXF_EVENT_ID	AXF_SOL_NAMESP	AXF_CMD_NAMESPC
1	1	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
2	2	IPM_BUTTON	SupplierMaintenance	StartSupplierMaintenance
3	3	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
4	4	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
5	5	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
6	6	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
7	7	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
8	8	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments

### B.3.4 OAF\_AXF\_CMD\_PARAMS Table (Oracle E-Business Suite OAF)

Each command is associated with different parameters that are required for the SOAP call. The parameters can be constant values or they can refer to the view attribute name. The attributes values can be obtained from the view object from the page context.

#### Column Description

**Table B-29 Column Description for OAF\_AXF\_CMD\_PARAMS Table**

Column	Description
AXF_CMD_PARAMS_ID	Specifies the primary key of the table.
AXF_CMDS_ID	Specifies the foreign key to the <a href="#">OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF)</a> , which associates the unique parameter with a specific command.

**Table B-29 (Cont.) Column Description for OAF\_AXF\_CMD\_PARAMS Table**

Column	Description
AXF_PARAM_NAME	<p>Defines the parameter name, where:</p> <ul style="list-style-type: none"> <li>application: Specifies the business application, as defined in the <a href="#">AFObjets Table</a>.</li> <li>businessObjectType: Specifies the business application's object type, as defined in the <a href="#">AFObjets Table</a>.</li> <li>businessObjectKey: Specifies the business application's object key, as defined in the <a href="#">AFObjets Table</a>.</li> <li>businessObjectValue1...5: Represents the primary key value for the document.</li> <li>labelValue1...5: Labels displayed on Managed Attachments user interface for displaying key values for the attachments integration.</li> <li>extraParamName: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See <a href="#">Passing Extra Metadata Values From a Business Application to Content Server</a>.</li> </ul>
AXF_DATASOURCE	<p>Specifies where the parameter value is retrieved.</p> <ul style="list-style-type: none"> <li>DATA: Retrieves the value in Oracle PeopleSoft defined by the AXF_RECORD_NAME and AXF_FIELD_NAME fields.</li> <li>CONSTANT: Uses the value defined in the AXF_CONSTANT_VALUE.</li> </ul>
AXF_VIEW_OBJ_NAME	<p>Specifies the OAF ViewObject name, which is used to obtain the command parameter values at runtime. See <a href="#">Identifying Key Values for Your OAF Pages</a>.</p>
AXF_ATTRIBUTE_NAME	<p>Used when the AXF_DATASOURCE is set to DATA. This attribute name retrieves the actual runtime value from the view object in the controller class.</p>
AXF_CONSTANT_VALUE	<p>Used as the constant value when AXF_DATASOURCE is set to CONSTANT.</p>

**Example Implementation**

The OAF\_AXF\_CMD\_PARAMS example that follows displays fields configured for the AfGrantAccess command for multiple OAF pages whose key values you identified in [Identifying Key Values for Your OAF Pages](#).

**Table B-30 Example OAF\_AXF\_CMD\_PARAMS Table**

AXF_CMD_PARAMS_ID	AXF_CMD_S_ID	AXF_PARAM_NAME	AXF_DATASOURCE	AXF_VIEW_OBJ_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
1	1	application	CONSTANT			EBS_instanceA
2	1	businessObjectType	CONSTANT			REQ_HEADERS
3	1	businessObjectKey1	CONSTANT			REQUISITION_HEADER_ID
4	1	businessObjectValue1	DATA	ReqHeaderVO	RequisitionHeaderId	

Table B-30 (Cont.) Example OAF\_AXF\_CMD\_PARAMS Table

AXF_CMD_PARAMS_ID	AXF_CMD_S_ID	AXF_PARAM_NAME	AXF_DATA_SOURCE	AXF_VIEW_OBJECT_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
5	1	labelValue1	DATA	ReqHeaderVO	PreparerName	
6	1	labelValue2	DATA	ReqHeaderVO	ReqNum	
7	1	businessObjectContext	CONSTANT			ScanContext
8	3	application	CONSTANT			EBS_instanceA
9	3	businessObjectType	CONSTANT			PO_HEADERS_MERGE_V
10	3	businessObjectKey1	CONSTANT			PO_HEADER_ID
11	3	businessObjectValue1	DATA	POHeaderMergeVO	POHeaderId	
12	4	application	CONSTANT			EBS_instanceA
13	4	businessObjectType	CONSTANT			PO_HEADERS
14	4	businessObjectKey1	CONSTANT			PO_HEADER_ID
15	4	businessObjectValue1	DATA	PosViewHeadersVO	PO_HEADER_ID	
16	5	application	CONSTANT			EBS_instanceA
17	5	businessObjectType	CONSTANT			PO_VENDORS
18	5	businessObjectKey1	CONSTANT			VENDOR_ID
19	5	businessObjectValue1	DATA	SupplierVO	VendorID	
20	6	application	CONSTANT			EBS_instanceA
21	6	businessObjectType	CONSTANT			PON_AUCTION_HEADERS_ALL
22	6	businessObjectKey1	CONSTANT			AUCTION_HEADER_ID
23	6	businessObjectValue1	DATA	AuctionHeadersAllVO	AuctionHeaderId	
24	7	application	CONSTANT			EBS_instanceA
25	7	businessObjectType	CONSTANT			PON_AUCTION_ITEM_PRICES_ALL
26	7	businessObjectKey1	CONSTANT			AUCTION_HEADER_ID
27	7	businessObjectValue1	DATA	ActionItemPricesAllVO	AuctionHeaderId	

Table B-30 (Cont.) Example OAF\_AXF\_CMD\_PARAMS Table

AXF_CMD_PARAMS_ID	AXF_CMD_S_ID	AXF_PARAM_NAME	AXF_DATA_SOURCE	AXF_VIEW_OBJECT_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
28	7	businessObjectKey2	CONSTANT			LINE_NUMBERS
29	7	businessObjectValue2	DATA	AuctionItemPricesAI IVO	LineNumbers	
30	8	application	CONSTANT			EBS_instanceA
31	8	businessObjectKey1	CONSTANT			PA_PROJECTS
32	8	businessObjectKey1	CONSTANT			PROJECT_ID
33	8	businessObjectValue1	DATA	ProjAttachmentsVO	PROJECT_ID	

## B.4 Oracle PeopleSoft Tables For the Managed Attachments Solution

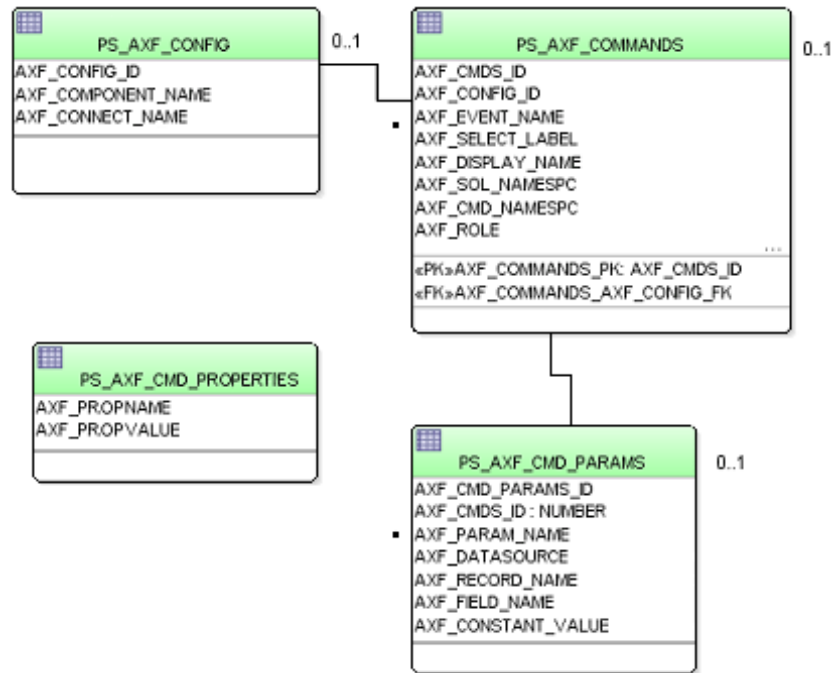
Oracle PeopleSoft tables define how the Managed Attachments page is activated through a button, link, or menu on selected Oracle PeopleSoft pages.

Configuring AXF for Oracle PeopleSoft requires configuring these AXF-related tables in Oracle PeopleSoft:

- [PS\\_AXF\\_CONFIG Table](#)
- [PS\\_AXF\\_COMMANDS Table](#)
- [PS\\_AXF\\_CMD\\_PARAMS Table](#)
- [PS\\_AXF\\_PROPERTIES Table](#)

The following diagram shows how the tables used by the Oracle PeopleSoft system in AXF solutions are related.

**Figure B-4 Oracle PeopleSoft Tables For the Managed Attachments Solution**



**Note:**

All AXF table fields require non-null values. You can include a space for fields that do not apply.

### B.4.1 PS\_AXF\_CONFIG Table

Use the PS\_AXF\_CONFIG table to enable the AXF solution on various Oracle PeopleSoft components. This table provides a fine level of granularity when selecting which pages and components to AXF-enable.

Events are automatically invoked when an action is performed on an Oracle PeopleSoft page. The AXF\_PS\_Integration project component catches PRE- and POST- save events and makes them available for customization. You can decide which events to use and how and when to use them.

#### Column Description

**Table B-31 Column Description for PS\_AXF\_CONFIG Table**

Column	Description
AXF_CONFIG_ID	Specifies the primary key of the table.
AXF_COMPONENT_NAME	Specifies the name of the Oracle PeopleSoft component being enabled.

**Table B-31 (Cont.) Column Description for PS\_AXF\_CONFIG Table**

Column	Description
AXF_CONNECT_NAME	Specifies the Oracle PeopleSoft Integration Broker Connection name (service operation to call), as defined in the Oracle PeopleSoft Integration Broker administration interface.  The default service operation is AXF_EXECUTE. You can set up and use other connections.
AXF_VERSION	Specifies the AXF version of the connection. This value should be set to 12c.

**Example Implementation**

This example defines that the WM\_WO (work order) component is AXF-enabled.

**Table B-32 Example PS\_AXF\_CONFIG Table**

AXF_CONFIG_ID	AXF_COMPONENT_NAME	AXF_CONNECT_NAME	AXF_VERSION
101	WM_WO	AXF_EXECUTE	12c
102	CA_HDR_PNG	AXF_EXECUTE	12c
103	REQUISITIONS	AXF_EXECUTE	12c

## B.4.2 PS\_AXF\_COMMANDS Table

Use the PS\_AXF\_COMMANDS table to describe the actions to take based on user activity. This table works with the [PS\\_AXF\\_CONFIG Table](#).

**Column Description**

**Table B-33 Column Description for PS\_AXF\_COMMANDS Table**

Column	Description
AXF_CMDS_ID	Specifies the primary key of the table, used to identify the unique command.
AXF_CONFIG_ID	Specifies the foreign key to the <a href="#">PS_AXF_CONFIG Table</a> , which associates this unique command with a particular page and component.
AXF_EVENT_NAME	Specifies the event being executed. The AXF_EVENT_NAME corresponds to the subpage incorporated into an existing Oracle PeopleSoft page, such as a button, link, or menu added to an Oracle PeopleSoft page to invoke AXF functionality such as the Image Viewer or Task List. Available options include: <ul style="list-style-type: none"> <li>• AXF_BUTTON_1, ..., AXF_BUTTON_5</li> <li>• AXF_LINK_1, ..., AXF_LINK5</li> <li>• AXF_COMBO_1, ..., AXF_COMBO_5</li> <li>• AXF_PRE_SAVE_SBP</li> <li>• AXF_POST_SAVE_SBP</li> </ul>
AXF_SELECT_LABEL	Represents the label that for display if using a drop-down component (for example, AXF_COMBO_1).



**Table B-33 (Cont.) Column Description for PS\_AXF\_COMMANDS Table**

Column	Description
AXF_DISPLAY_NAME	Defines the name of the button or link to display on the Oracle PeopleSoft page.
AXF_SOL_NAMESPC	Identifies the solution namespace for the command to execute.
AXF_CMD_NAMESPC	Identifies the command namespace for the command to execute.
AXF_PSFT_ROLE	Identifies the Oracle PeopleSoft roles with access to the command. Include roles in a comma-delimited list with each role enclosed in single quotes (for example, 'Role1','Role2','Role3')
AXF_SORT_ORDER	Specifies the order of items displayed in a selection field. Sort order applies to selection fields only.
AXF_REQ_CONV	Specifies if a conversation is required for this command before execution. For example, execution of the UpdateTask command requires a conversation be running in order for the user to select a current task.

**Example Implementation**

This example shows the UCM\_Managed\_Attachments command added as a link to an Oracle PeopleSoft page.

You must specify an Oracle PeopleSoft Role in the AXF\_PSFT\_ROLE field to give permissions to use the commands. If a person does not have proper permissions to use the commands, the commands do not display. If the commands display but do not function, this indicates that the commands are not configured properly.

**Table B-34 Example PS\_AXF\_COMMANDS Table**

AXF_CMD_S_ID	AXF_CO_NFIG_ID	AXF_EVENT_NAME	AXF_SELECT_LABEL	AXF_DISPLAY_NAME	AXF_SOL_NAMESPACE	AXF_CMD_NAMESPACE	AXF_PSFT_ROLE	AXF_SORT_ORDER	AXF_REQ_CONV
101	101	AXF_LINK_1	(null)	Managed Attachments	UCM_Managed_Attachments	UCM_Managed_Attachments	'Employee'	1	N
102	102	AXF_LINK_1	(null)	Managed Attachments	UCM_Managed_Attachments	UCM_Managed_Attachments	'Employee'	1	N
103	103	AXF_LINK_1	(null)	Managed Attachments	UCM_Managed_Attachments	UCM_Managed_Attachments	'Employee'	1	N

**B.4.3 PS\_AXF\_CMD\_PARAMS Table**

Use the PS\_AXF\_COMMAND\_PARAMS table to specify the information sent for each defined command. Each command may require or omit a different set of parameters.

Use the PS\_AXF\_CMD\_PARAMS Table to configure a label for the list of attachments. You can use a combination of constant and data values to display key information. Similar to configuring labels, you can also add rows to pass in extra

metadata values, as described in [Passing Extra Metadata Values From a Business Application to Content Server](#).

### Column Description

**Table B-35 Column Description for PS\_AXF\_CMD\_PARAMS Table**

Column	Description
AXF_CMD_PARAM_ID	Specifies the primary key of the table.
AXF_CMD_ID	Specifies the foreign key to the <a href="#">PS_AXF_COMMANDS Table</a> , which associates the unique parameter with a specific command.
AXF_PARAM_NAME	Defines the parameter name, where: <ul style="list-style-type: none"> <li>application: Specifies the business application, as defined in <a href="#">AFOjects Table</a>.</li> <li>businessObjectType: Specifies the business application's object type, as defined in <a href="#">Placing AXF Components on Oracle PeopleSoft Pages</a>.</li> <li>businessObjectKey1...5: Represents the primary key name for the document.</li> <li>businessObjectValue1...5: Represents the primary key value for the document.</li> <li>labelValue1...5: Labels displayed on Managed Attachments user interface for displaying key values for the attachments integration.</li> <li>extraParamName: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See <a href="#">Passing Extra Metadata Values From a Business Application to Content Server</a>.</li> </ul>
AXF_DATASOURCE	Specifies where the parameter value is retrieved. <ul style="list-style-type: none"> <li>DATA: Retrieves the value in Oracle PeopleSoft defined by the AXF_RECORD_NAME and AXF_FIELD_NAME fields.</li> <li>CONSTANT: Uses the value defined in the AXF_CONSTANT_VALUE field.</li> </ul>
AXF_RECORD_NAME	Identifies the record of the field in the Oracle PeopleSoft page to use as the target value to retrieve when AXF_DATASOURCE is set to DATA.
AXF_FIELD_NAME	Used as the constant value when AXF_DATASOURCE is set to DATA.
AXF_CONSTANT_VALUE	Used as the constant value when AXF_DATASOURCE is set to CONSTANT.

### Example Implementation

This example shows the information sent for the UCM\_Managed\_Attachments command, including its application and business object type.

- The labelValue entries are configured to display key labels/values for the attachment. For example, the labelValues configuration in this table might display the following for work orders on the Managed Attachments page:  
[Business Unit], [US001], [Work Order], [123456]

**Table B-36 Example PS\_AXF\_CMD\_PARAMS Table**

AXF_CMD_PARAM_ID	AXF_CMD_ID	AXF_PARAM_NAME	AXF_DATA_SOURCE	AXF_RECORD_NAME	AXF_FIELD_NAME	AXF_CONSTANT_VALUE
101	101	application	CONSTANT			PSFT_INST ANCE_A
102	101	businessObjectType	CONSTANT			WM_WO_H DR
103	101	businessObjectKey1	CONSTANT			BUSINESS_ UNIT
104	101	businessObjectValue1	DATA	WM_WO_HDR	BUSINESS_UN IT	
105	101	businessObjectKey2	CONSTANT			WO_ID
106	101	businessObjectValue2	DATA	WM_WO_HDR	WO_ID	
107	101	labelValue1	CONSTANT			Business Unit
108	101	labelValue2	DATA	WM_WO_HDR	BUSINESS_UN IT	
109	101	labelValue3	CONSTANT			Work Order
110	101	labelValue4	DATA	WM_WO_HDR	WO_ID	
111	101	businessObjectContext	CONSTANT			ScanContext
112	102	application	CONSTANT			PSFT_INST ANCE_A
113	102	businessObjectType	CONSTANT			CA_CONTR _HDR
114	102	businessObjectKey1	CONSTANT			BUSINESS_ UNIT
115	102	businessObjectValue1	DATA	CA_CONTR_HDR	BUSINESS_UN IT	
116	102	businessObjectKey2	CONSTANT			CONTRACT _NUM
117	102	businessObjectValue2	DATA	CA_CONTR_HDR	CONTRACT_N UM	
118	102	labelValue1	CONSTANT			Business Unit
119	102	labelValue2	DATA	CA_CONTR_HDR	BUSINESS_UN IT	
120	102	labelValue3	CONSTANT			Contract Number
121	102	labelValue4	DATA	CA_CONTR_HDR	CONTRACT_N UM	
122	103	application	CONSTANT			PSFT_INST ANCE_A

**Table B-36 (Cont.) Example PS\_AXF\_CMD\_PARAMS Table**

AXF_CMD_PARAM_ID	AXF_CMD_ID	AXF_PARAM_NAME	AXF_DATA_SOURCE	AXF_RECORD_NAME	AXF_FIELD_NAME	AXF_CONSTANT_VALUE
123	103	businessObjectType	CONSTANT			REQ_HDR
124	103	businessObjectKey1	CONSTANT			BUSINESS_UNIT
125	103	businessObjectValue1	DATA	REQ_HDR	BUSINESS_UNIT	
126	103	businessObjectKey2	CONSTANT			REQ_ID
127	103	businessObjectValue2	DATA	REQ_HDR	REQ_ID	
128	103	labelValue1	CONSTANT			Business Unit
129	103	labelValue2	DATA	REQ_HDR	BUSINESS_UNIT	
130	103	labelValue3	CONSTANT			Requisition
131	103	labelValue4	DATA	REQ_HDR	REQ_ID	

## B.4.4 PS\_AXF\_PROPERTIES Table

Use the PS\_AXF\_PROPERTIES table to define properties for AXF integration with Oracle PeopleSoft. See [Resizing Oracle PeopleSoft Popup Solution Windows](#).

### Column Description

**Table B-37 Column Description for PS\_AXF\_PROPERTIES Table**

Column	Description
AXF_PROPNAME	Specifies properties to use. Properties include: <ul style="list-style-type: none"> <li>WINDOW_HEIGHT: Specify the popup window's height in pixels. (This refers to any popup window that displays as part of the solution.)</li> <li>WINDOW_WIDTH: Specify the popup window's width in pixels.</li> </ul>
AXF_PROPVALUE	Specifies the property's value.

### Example Implementation

This example table shows the default properties values.

**Table B-38 Example PS\_AXF\_PROPERTIES Table**

AXF_PROPNAME	AXF_PROPVALUE
WINDOW_HEIGHT	600

**Table B-38 (Cont.) Example PS\_AXF\_PROPERTIES Table**

AXF_PROPNAME	AXF_PROPVALUE
WINDOW_WIDTH	800

## B.5 Content Server Tables For the Managed Attachments Solution

Content Server tables define how Content Server documents are mapped to Oracle E-Business Suite or Oracle PeopleSoft business objects and how users are temporarily granted access to documents associated with a particular business object.

The adapter utilizes the following additional database tables:

- [AFGrants Table](#)
- [AFObjects Table](#)
- [AFRelationshipAttributes Table](#)
- [AFKeys Table](#)

These tables are automatically populated at run-time. AFGrants is initially populated when the user accesses Content Server from the business application and the AF\_GRANT\_ACCESS service is run. AFObjects is populated when the user checks in a document to Content Server from the Managed Attachments page.

### B.5.1 AFGrants Table

This table stores the grants given to users, allowing them to temporarily access documents associated with a particular business object.

#### Column Description

**Table B-39 Column Description for AFGrants Table**

Columns	Description
dUserName	Stores the name of the user.
dAFApplication	Stores the business application's instance name (for example, PSFT_Instance1).
dAFBusinessObject	Stores the business application's object
dAFBusinessObjectType	Stores the business application's object type
dPrivilege	Stores the privilege to grant to the user: R (read), W (write), D (delete), or A (admin).  This parameter is required. If not specified, the access level specified for the AppAdapterGrantPrivilege configuration variable is used, as described in <a href="#">Configuring Managed Attachments Settings</a> .
dExpirationDate	Stores the date and time at which to expire this grant.

**Table B-39 (Cont.) Column Description for AFGGrants Table**

Columns	Description
dMaxExpiration	Stores the time at which the maximum access period (in hours) expires.

## B.5.2 AFObjects Table

This table maps Content Server documents to AF business objects, in an N-to-N relationship, which enables multiple content items to be associated with a single business object and multiple business objects to contain the same content item.

Each time a user attaches or detaches a document, a record is added or updated in this table.

### Column Description

**Table B-40 Column Description for AFObjects Table**

Column	Description
dAFID	Stores the unique ID of each attachment.
dAFApplication	Stores the business application's instance name (for example, PSFT_Instance or EBS_Instance).
dAFBusinessObjectType	Stores the business application's object type (for example, CallRecords or HRMS).
dAFBusinessObject	Stores the business object's ID in the business application instance.
dDocName	Stores a content item's ID associated with the business object.
DID	Stores the ID of the document associated with the business entity. In revision-specific attachments mode, this ID is used in returning a specific version of the document. For more information, see <a href="#">Configuring Revision-Specific Mode</a> .

## B.5.3 AFRelationshipAttributes Table

This table stores relationship attributes associated with an attachment. For more information, see [Configuring Attachment Relationship Attributes](#). Depending on the configuration of relationship attributes, a document can have zero or more relationship attributes.

### Column Description

**Table B-41 Column Description for AFRelationshipAttributes Table**

Columns	Description
dAFID	Stores the unique ID of each attachment.
attribute	Stores the relationship attribute name.
value	Stores the value of the relationship attribute the user selected.

## B.5.4 AFKeys Table

This table stores individual key values for later reference.

The business applications support up to five primary key/value combinations, which can be used instead of dAFBusinessObject to represent a business entity. In a Managed Attachments solution, these keys are mapped to dAFBusinessObject by concatenating the PK\_Value fields separated by a | (pipe) character. The original PK\_Key and PK\_Values are logged to the AFKeys table before performing the mapping operation.

### Column Description

**Table B-42 Column Description for AFKeys Table**

Columns	Description
dAFApplication	Stores the business application's instance name.
dAFBusinessObjectType	Stores the business application's object type.
dAFBusinessObject	Stores the business object's ID in the business application instance.
PK1_Key ... PK5_Key	Stores up to five key/value combinations.
PK1_Value ... PK5_Value	Stores up to five key/value combinations.