Oracle® Fusion Middleware

Administrator's Guide for Oracle Application Adapters for Oracle Enterprise Content Management

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Oracle Fusion Middleware Administrator's Guide for Oracle Application Adapters for Oracle Enterprise Content Management, 11*g* Release 1 (11.1.1)

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Preface

The *Administrator's Guide for Oracle Application Adapters for Oracle Enterprise Content Management* describes Oracle business application solution configurations for Oracle Enterprise Content Management systems.

Audience

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

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For end-user adapter information, see the *Oracle Fusion Middleware User's Guide for Oracle Application Adapters for Oracle Enterprise Content Management*.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Solutions Overview

This guide describes the Oracle Application Adapters for Oracle Enterprise Content Management (Oracle ECM). The adapters include the following optional solutions for Oracle E-Business Suite and Oracle PeopleSoft:

- **Imaging Solution**, which provides imaging, capture, and workflow capabilities using Oracle Imaging and Process Management (Oracle I/PM). See Section 1.2, "About the Imaging Solution."
- **Managed Attachments Solution**, which enables business users to attach, scan, and retrieve document attachments stored in an Oracle Universal Content Management (Oracle UCM) repository. See Section 1.3, "About the Managed Attachments Solution."

This chapter covers the following topics:

1.1 About Application Extension Framework (AXF)

Oracle Enterprise Content Management 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 Oracle I/PM or Oracle UCM. (Oracle UCM uses Oracle Content Server as its repository.)

An **AXF solution** is a micro-application whose components are created using the 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 open Java-based architecture of AXF enables integrators to configure and modify multiple business process solutions separate from the systems themselves, and to upgrade systems without affecting implemented AXF solutions.

Note: AXF is included in Oracle I/PM installation.

The Application Extension Framework includes the following components:

AXF Solution Implementation Accelerators

Oracle provides implementation accelerators for specific functions, such as automating invoice and receipt processing using BPEL-based 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.

AXF Commands

AXF provides reusable commands for implementing functionality.

- The Imaging solution uses multiple AXF commands, as described in Section 1.2.3.
- The Managed Attachments solution uses a single AXF command that implements Oracle UCM services that temporarily display and provide access to documents associated with a business application entity.

AXF Web Tools

AXF provides web interface components for display to users, such as a task list and task viewer. These web tools are used in the Imaging solution and configured through the AXF tables. They are described in Section 1.2.4.

AXF Configuration Database Tables

You configure AXF solutions, commands, and web tools by configuring the AXF database tables. The solutions use the AXF tables in different ways.

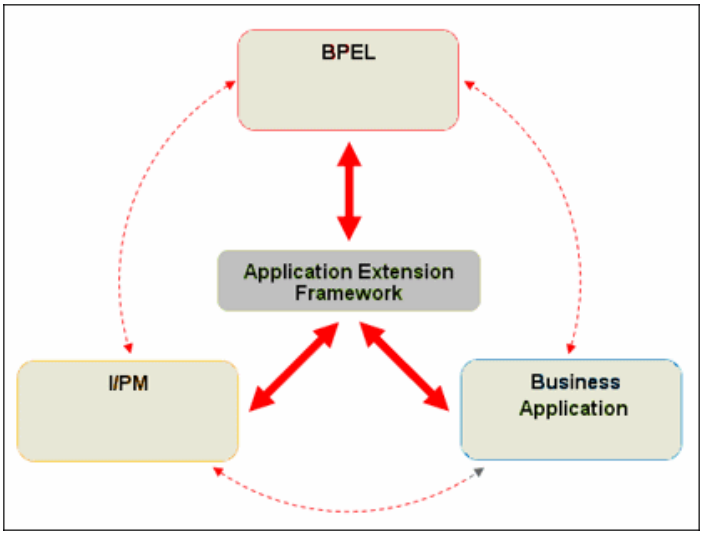
In addition, AXF-related business application tables are configured for the selected solution:

- In Oracle E-Business Suite, AXF-related tables specify which screens are enabled to execute AXF commands.
- In Oracle PeopleSoft, AXF-related tables enable AXF components on Oracle PeopleSoft pages.

1.2 About the Imaging Solution

A workflow Imaging solution is an integration between a business application and BPEL (Oracle BPEL Process Manager), using Oracle I/PM as the imaging source, as illustrated 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, Oracle I/PM, and BPEL Systems



This section covers the following topics:

- Section 1.2.1, "Business User View For the Imaging Solution"
- Section 1.2.2, "Imaging Solution System Architecture"
- Section 1.2.3, "About AXF Commands Used By the Imaging Solution"
- Section 1.2.4, "About AXF Web User Tools"
- Section 1.5, "About Adapter Security and Authentication"

1.2.1 Business User View For the Imaging Solution

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

- Launch AXF from their business application, and select and perform workflow tasks. For example, users performing Invoice Processing tasks select a custom button, link, or menu command integrated into their business application called Invoice Processing, initiating the following processes:
  - A SOAP request is generated and sent to AXF, passing the selected command along with additional parameters such as an AXF solution (Invoice Processing), an AXF command (Open_Tasklist), and a user name.
  - AXF returns an OPEN_BROWSER command with the URL to launch, such as an AXF Task List.
  - The business application opens the Task List URL in a new browser window, enabling the user to start processing invoice images.
- View attached images and metadata values. Use Oracle I/PM'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 Oracle I/PM 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

An 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 Oracle I/PM, and vice versa.

> **Note:** For details about Imaging Solution user tasks, see the *Oracle Fusion Middleware User's Guide for Oracle Application Adapters for Oracle Enterprise Content Management*.

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 Distributed Document 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 index values (metadata) in Oracle Distributed Document Capture to store with the images.

5. The user clicks **Send**, which transmits the captured document images and their metadata from Oracle Distributed Document Capture to Oracle I/PM.

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 Oracle I/PM 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

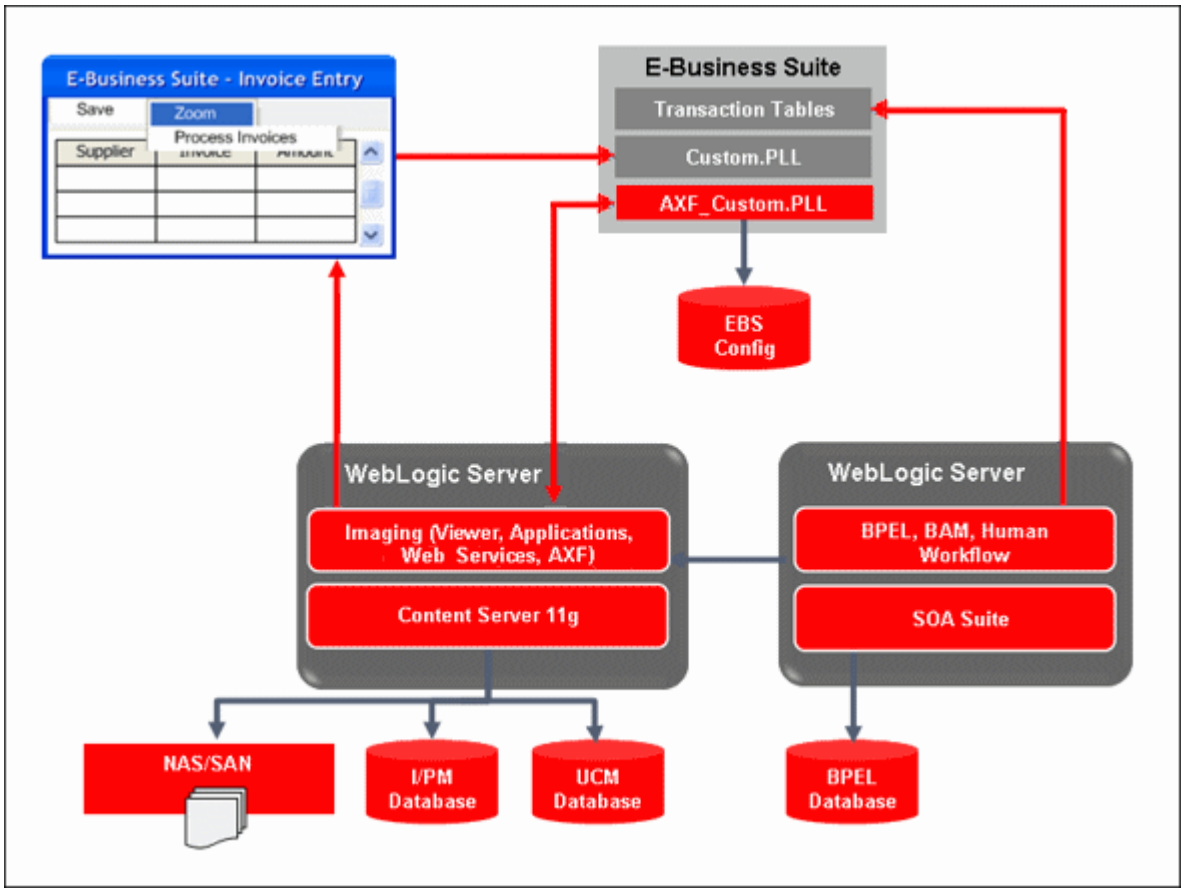
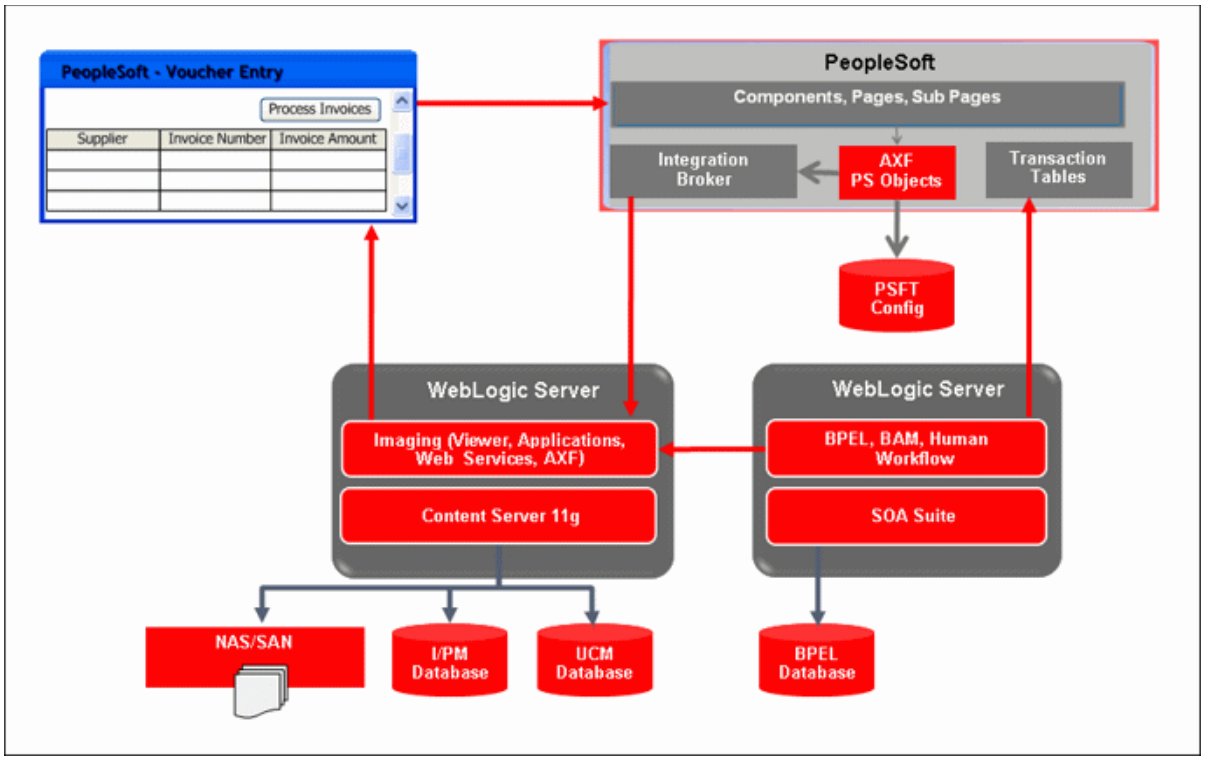


Figure 1–3 illustrates an Imaging solution configuration for the Oracle PeopleSoft adapter.

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



1.2.3 About AXF Commands Used By the 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 Section A.3.

AXF Command	Description
Open Task	Displays the AXF Task Viewer web page and claims a human workflow task. See Section A.3.1.
Autotask	Displays autotask mode, in which a new human workflow task is automatically claimed in the AXF Task Viewer without displaying the Task List. See Section A.3.2.
Release Task	Releases a human workflow task, and, if configured, executes additional actions. See Section A.3.3.
Complete Task	Completes a human workflow task, and, if configured, updates BPEL payload attribute values and executes additional actions. See Section A.3.4.
Redirect	Redirects the current AXF web page to any URL or AXF web page specified in the configuration. See Section A.3.5.
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. See Section A.3.6.
Update Task From Procedure	Calls a stored procedure using a specified data source and updates values in the BPEL payload using XPATH. See Section A.3.7.

AXF Command	Description
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. See Section A.3.9.

Note: You can also deploy custom commands and chained commands to execute through AXF. See Section 5.4.5, "Deploying Custom Commands" and Section 5.4.6, "Configuring Chained Commands and Web Tools."

1.2.4 About AXF Web User Tools

The Imaging Solution provides the following user interface components. These are web interface components displayed to users and configured through the AXF tables.

- Section 1.2.4.1, "About the Task List"
- Section 1.2.4.2, "About the Task Viewer"
- Section 1.2.4.3, "About the Enumeration Picker"
- Section 1.2.4.4, "About the Identity Picker"
- Section 1.2.4.5, "About Comments"

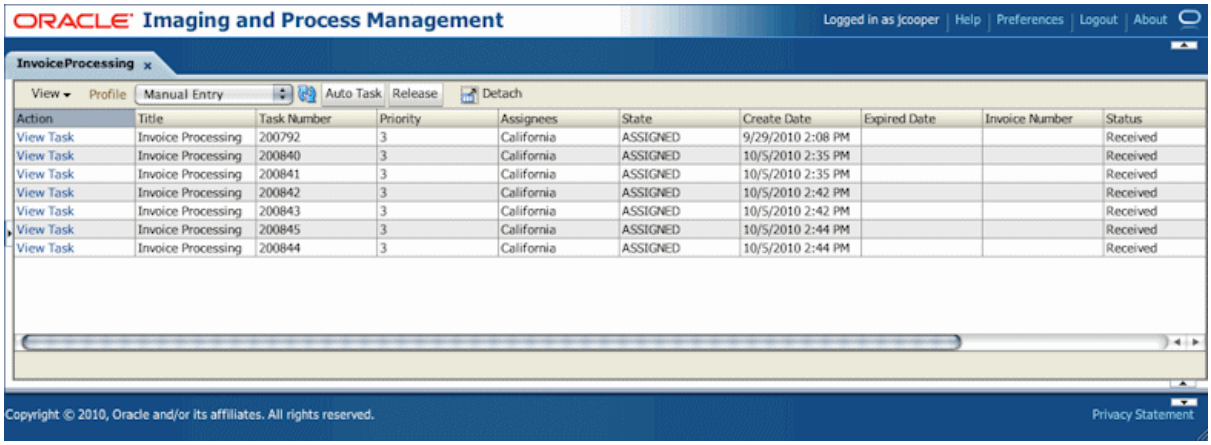
1.2.4.1 About the Task List

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.

Note: Use the BPM Worklist application to create views and share them with other users or groups.

For configuration information, see Section A.2.1, "Task List Web Tool."

Figure 1–4 Task List Web Tool



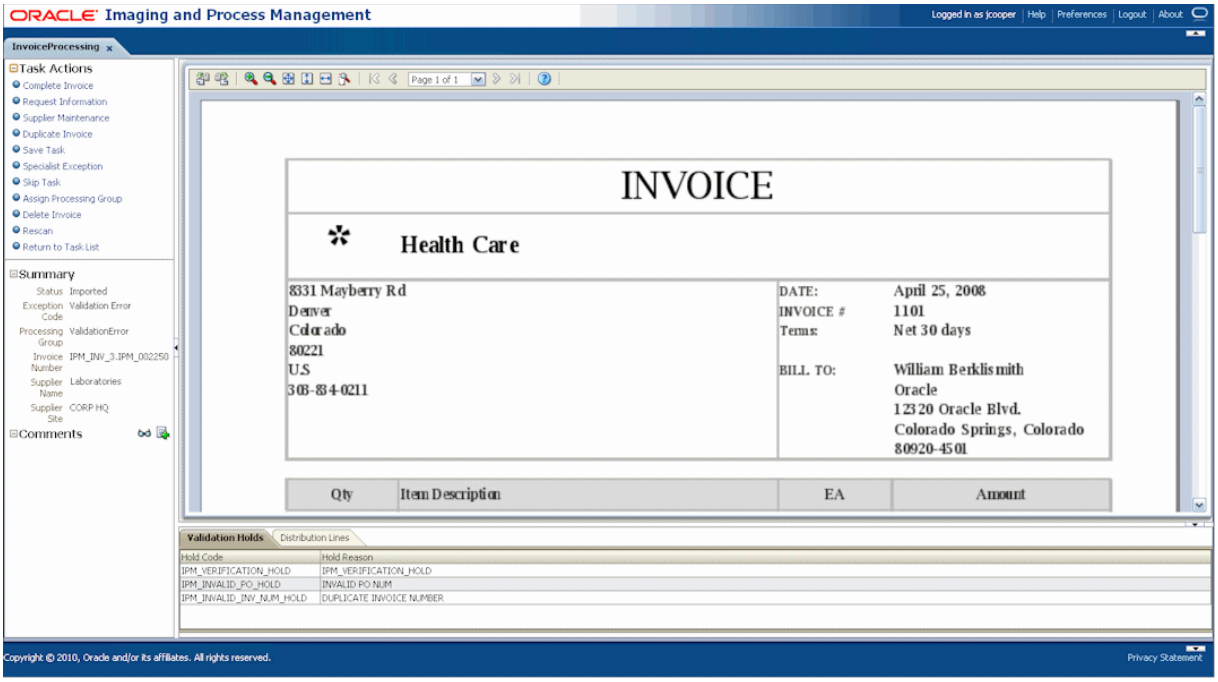
The Task List web tool can also display a list of AXF actions, using AXF action commands. These action commands are menu components configured in the AXF_ACTIONS Table for display on an AXF web page.

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, Oracle I/PM, and the business application. It also typically displays a side menu containing AXF action commands configured in the AXF_ACTIONS Table. It may also include a summary section with metadata values, a comments section, and a dynamic data table.

For configuration information, see Section A.2.2, "Task Viewer Web Tool."

Figure 1–5 Task Viewer Web Tool

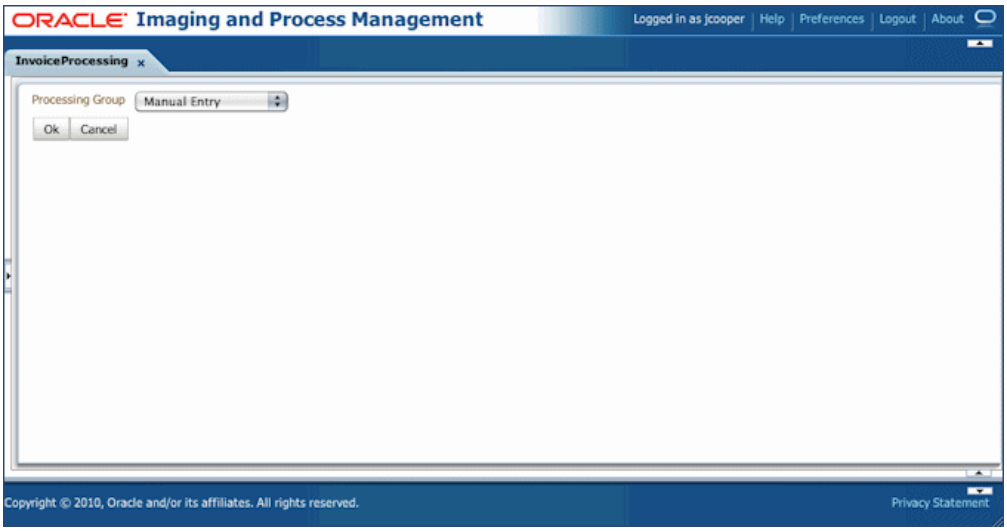


1.2.4.3 About the Enumeration Picker

The Enumeration Picker web page shown in Figure 1–6 enables users to select from a list of enumerated values configured in the AXF database tables.

For configuration information, see Section A.2.3, "Enumeration Picker Web Tool."

Figure 1–6 Enumeration Picker Web Tool

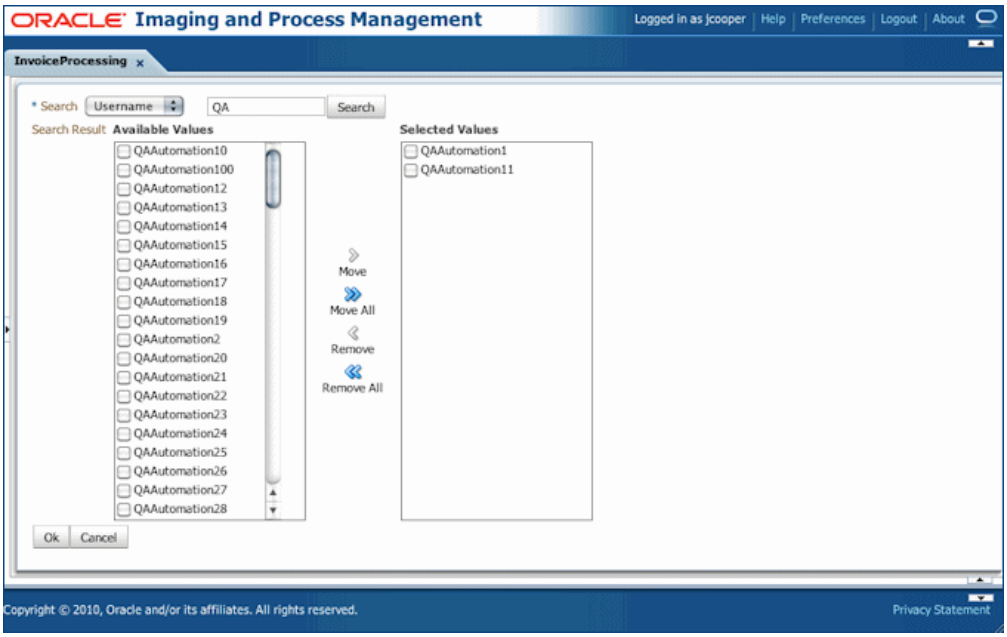


1.2.4.4 About the Identity Picker

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 Section A.2.4, "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

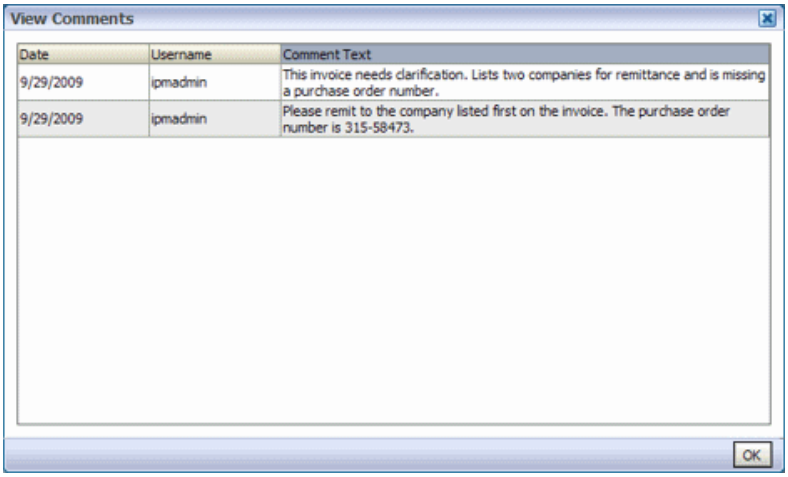
comments on any AXF web page that shows data from a single task, such as the Task Viewer shown in Figure 1–5. Comments persist for the entire process, allowing users to view and add comments. BPEL workflow task saves comments using its native comments capabilities.

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

For configuration information, see Section A.2.2.3 and Section A.2.2.1.2.

Figure 1–9 Comments Web Tool

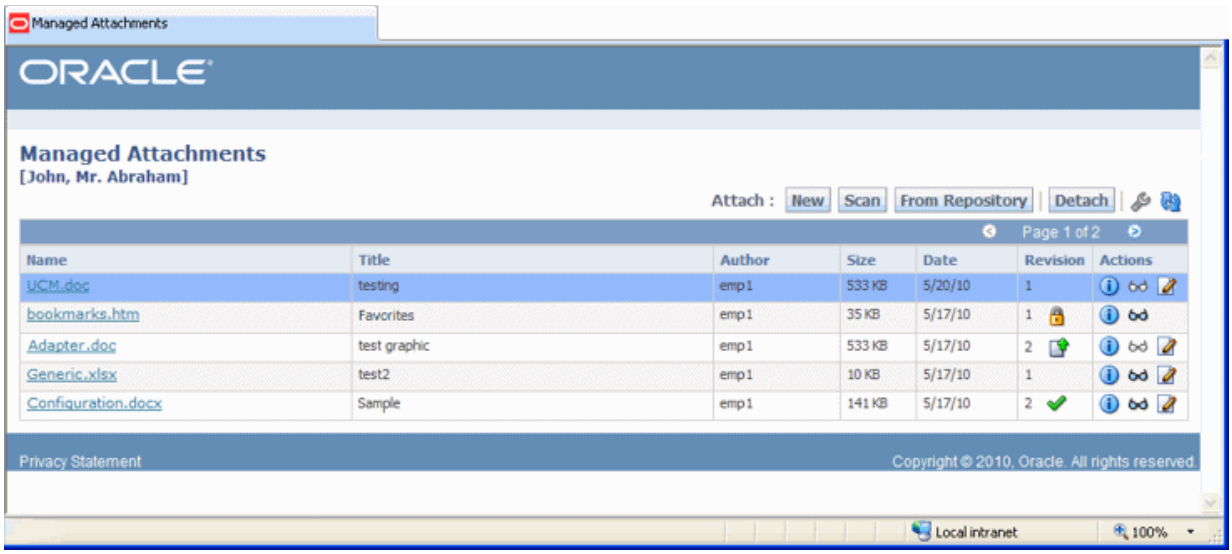


1.3 About the Managed Attachments Solution

With this solution, Oracle UCM documents are listed as managed attachments to business application entities in a customizable screen 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 or link, and attaches a passport image and supporting identity documents.

The Managed Attachments Solution shown in Figure 1–10 enables business users to attach, scan, and retrieve attachments stored in an Oracle UCM Content Server repository. An Oracle UCM 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 Screen



This section covers the following topics:

- Section 1.3.1, "Business User View For the Managed Attachments Solution"
- Section 1.3.2, "About the AXF Command and Service Used By the Attachments Solution"
- Section 1.3.3, "Managed Attachments Solution System Architecture"

1.3.1 Business User View For the Managed Attachments Solution

Business application users can perform these tasks in the Managed Attachments Solution:

- Check in new documents to Oracle UCM and attach them to the selected business application entity
- Scan and import documents using Oracle Distributed Document 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 Oracle UCM and attach documents to the selected business application entity from the Oracle UCM 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 the *Oracle Fusion Middleware User's Guide for Oracle Application Adapters for Oracle Enterprise Content Management*.

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 Distributed Document 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 index values (metadata) in Oracle Distributed Document Capture to store with the images.
5. The user clicks **Send**, which transmits the captured document images and their metadata from Oracle Distributed Document Capture to Oracle UCM.
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 screen 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 Oracle UCM (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 Oracle UCM 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 Oracle UCM service temporarily grants a user who has logged into the business application access to all Oracle UCM 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 Oracle UCM **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.

How Oracle UCM 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

Figure 1–11 illustrates the Managed Attachments architecture when installed for Oracle E-Business Suite use.

Figure 1–11 System Architecture for an Oracle E-Business Suite Adapter Managed Attachments Solution

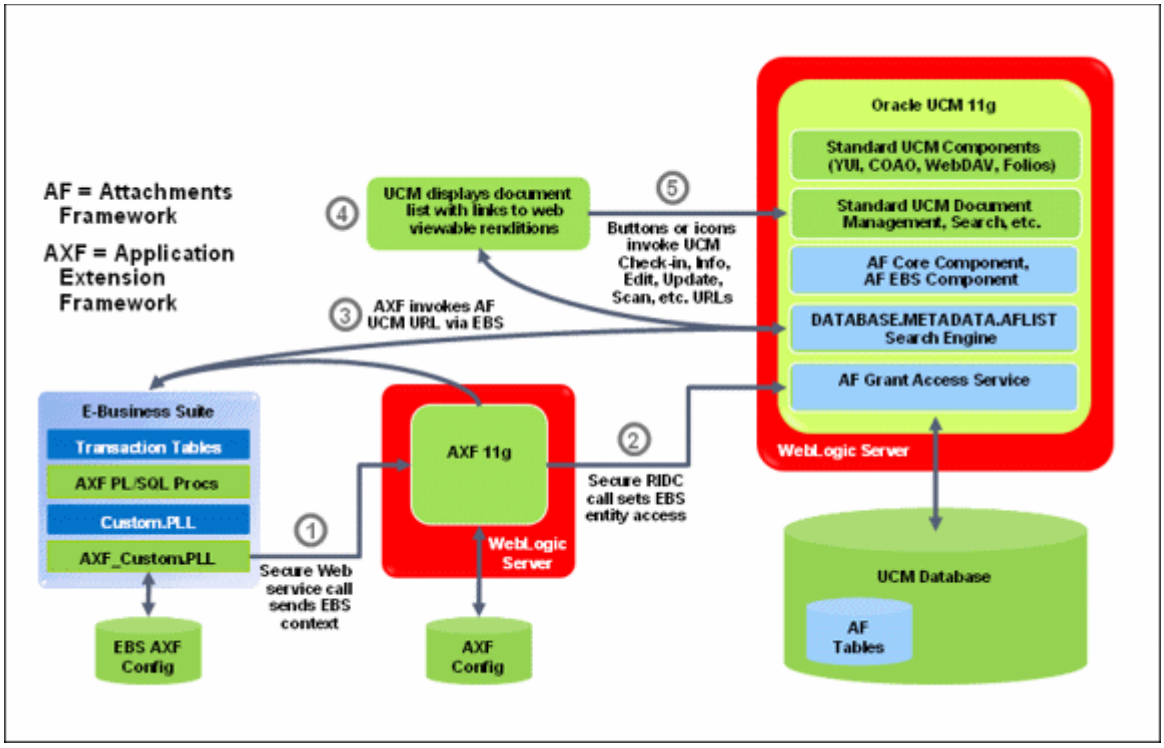
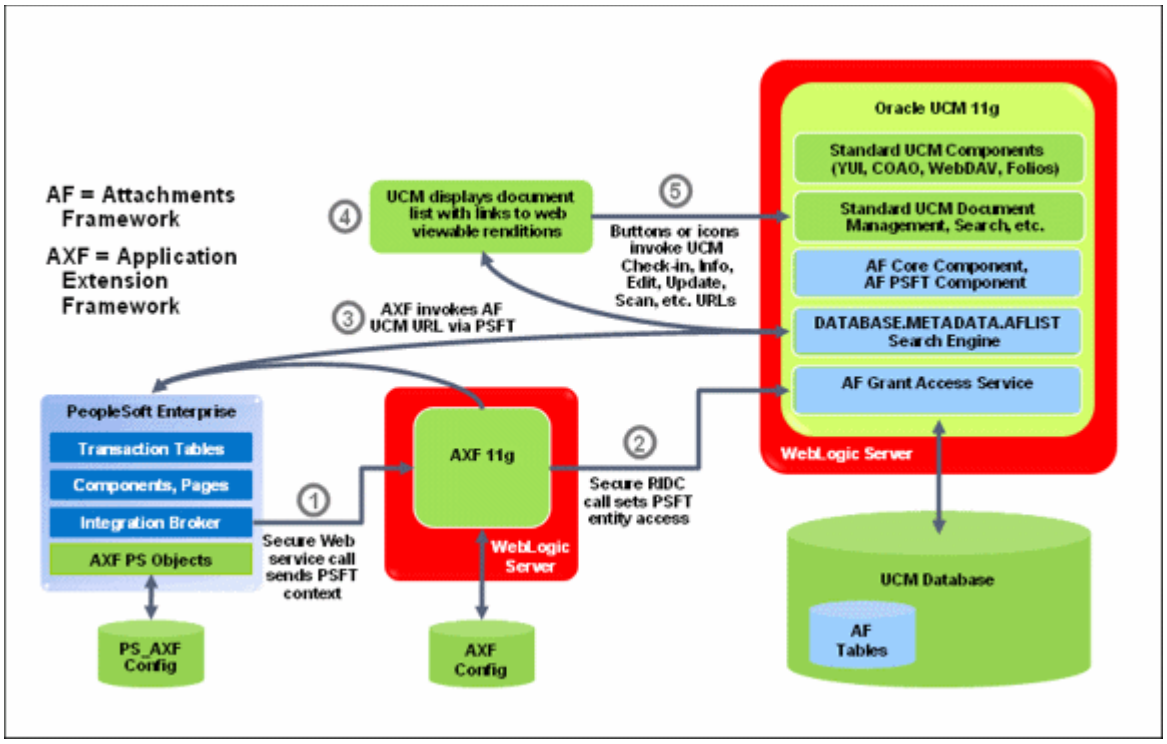


Figure 1–12 illustrates Managed Attachments architecture when installed for Oracle PeopleSoft use.

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



1.4 About the Adapter Components

The adapter includes the following main components:

Application Extension Framework (AXF)

AXF is included in ECM installation. AXF solution tables are automatically created during installation.

Business Application Plug-In

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

- 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. You also upload files to the Oracle E-Business Suite system that integrate custom actions with pre-existing Oracle E-Business Suite Forms. See Section 2, "Configuring the Oracle E-Business Suite Plug-In."
- 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 Section 3, "Configuring the Oracle PeopleSoft Suite Plug-In."

Oracle UCM Components

If using the Managed Attachments solution, this portion includes Oracle UCM components bundled in ZIP files that you install and enable using Component Manager. They include the AppAdapter framework core files. See Section 6.3, "Configuring the Oracle UCM Components."

1.5 About Adapter Security and Authentication

The adapters provide multiple security and authentication levels, which vary depending on the solution (Imaging or Managed Attachments) and the business application (Oracle E-Business Suite or Oracle PeopleSoft), as identified in Table 1–1.

Table 1–1 Security Controls for ECM Adapter

Authentication/ Security Level	Business Applications	Supported Solutions	Description	Configuration Information
Browser Level Authentication	Oracle E-Business Suite and Oracle PeopleSoft	Imaging and Managed Attachments	Occurs when end-users invoke the solution from an Oracle E-Business Suite form or Oracle PeopleSoft page configured for access. ■ For the Imaging solution, occurs when users access an AXF web tool or the Oracle I/PM viewer. ■ For the Managed Attachments solution, occurs when users access the Managed Attachments screen.	Authentication at this level is handled by Oracle WebLogic Server and configured during ECM installation.
Web Service Authentication (WSS/SOAP)	Oracle E-Business Suite and Oracle PeopleSoft	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. ■ In Oracle E-Business Suite, set username token authentication using an AXF_SOAP_POLICY key in the AXF_PROPERTIES table. ■ In Oracle PeopleSoft, configure the Integration Broker node that communicates to AXF with username token authentication.	For Oracle E-Business Suite, see Section 2.2.1, "Securing Communications Through SOAP Security." For Oracle PeopleSoft, see Section 3.2.2.1, "Configuring Communication With an 11g AXF Server."
SSL	Oracle E-Business Suite and Oracle PeopleSoft	Imaging and Managed Attachments	For Oracle E-Business Suite, configure SSL settings through the AXF_CONFIGS and AXF_PROPERTIES tables. 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 ECM side.	For Oracle E-Business Suite, see Section 2.2.2, "Securing Communications Through SSL." For Oracle PeopleSoft, see Section 3.2.1, "Securing Communications Through SSL."
AXF to Oracle UCM	Oracle E-Business Suite and Oracle PeopleSoft	Managed Attachments	Enable trusted communication between the host on which AXF is running and the Oracle UCM server.	See Section 6.4.3, "Securing Communications Between AXF and Oracle UCM."
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 Oracle UCM). ■ Users can access private documents only through the Managed Attachments screen. ■ Any Oracle UCM user with the document's security group access can access shared documents.	See Section 6.4.2, "Configuring Document Security."

1.6 Adapter System Requirements

The adapter is composed of optional solutions installed over a base configuration of AXF, Oracle I/PM, and Oracle UCM files standard to adapters that use AXF functionality. Requirements for the adapter are listed below.

> **Note:** Supported configuration and certification information is available at:
>
> http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html

> **Note:** The Managed Attachments Solution has additional requirements, listed in Section 6.1.

Oracle E-Business Suite Release 11.5.10+, 12.0.4+ or 12.1.1+

A fully functioning Oracle E-Business Suite system.

- Oracle E-Business Suite Forms Builder is required for .PLL compilation.
  - For Oracle E-Business Suite 11i, Forms 6.0 Version 6.0.8.25.2+
  - For Oracle E-Business Suite 12, Forms Builder Version 10.1.2.0.2+
- To avoid duplicate logins, Oracle Single Sign-On or Oracle Access Manager is required. For more information, see the *Oracle Fusion Middleware Application Security Guide*.

> **Note:** The Oracle E-Business Suite Adapter for ECM supports Oracle E-Business Suite Forms only. OAF web pages are not currently supported.
>
> In this release, the adapter is localized for English only.

Oracle PeopleSoft Enterprise

A fully functioning Oracle PeopleSoft system.

- PeopleTools 8.48.x, 8.49.x, or 8.50.x.
- To avoid duplicate logins, Oracle Single Sign-On or Oracle Access Manager is required. For more information, see the *Oracle Fusion Middleware Application Security Guide*.

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

Oracle SOA Suite 11*g* (Imaging Solution Only)

For the Imaging Solution, SOA 11*g*R1 (with patchset 1) is required, along with a BPEL server instance. BPEL is part of SOA 11*g*R1. Oracle SOA Suite is not needed if configuring the Managed Attachments Solution only.

1.7 Adapter Configuration Roadmap

This section lists the major configuration steps for the adapter.

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	Section 2.1.2
Compile Oracle E-Business Suite Forms by modifying PLL files	Section 2.1.3
Secure Oracle E-Business Suite to AXF communications via SOAP security and SSL	Section 2.2
Configure AXF-related Oracle E-Business Suite tables to enable one or both solutions on Oracle E-Business Suite Forms	Section 2.3

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

Tasks	Refer To
Import the Oracle PeopleSoft integration project	Section 3.1
Configure Integration Broker to communicate with AXF	Section 3.2.2
Configure AXF access for Oracle PeopleSoft users	Section 3.2.3
Place AXF components on Oracle PeopleSoft pages	Section 3.3
Configure AXF-related Oracle PeopleSoft tables to enable one or both solutions on Oracle PeopleSoft pages	Section 3.4

3. **Configure AXF settings.**

Tasks	Refer To
Configure AXF logging	Section 4.1

4. **If configuring the Imaging solution, complete these steps.**

Tasks	Refer To
Configure the BPEL connection	Section 5.1
Configure the AXF tables or apply a solution implementation accelerator	Section 5.2
Test functionality using the AXF driver page	Section 5.3
Customize Imaging functionality as needed	Section 5.4

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

Tasks	Refer To
Run Managed Attachments installation scripts	Section 6.2
Install and configure Oracle UCM components	Section 6.3
Configure authentication and security	Section 6.4

Tasks	Refer To
Configure document viewing with AutoVue (optional)	Section 6.5
Configure document scanning/importing with Oracle Distributed Document Capture (optional)	Section 6.6
Customize Managed Attachments functionality as needed	Section 6.7

2

Configuring the Oracle E-Business Suite Plug-In

This chapter describes how to configure the Oracle E-Business Suite plug-in for use by one or more Oracle ECM adapter solutions. It covers the following topics:

- Section 2.1, "Configuring Oracle E-Business Suite Solution Components"
- Section 2.2, "Securing Adapter Communications for Oracle E-Business Suite"
- Section 2.3, "Configuring AXF-Related Oracle E-Business Suite Tables"
- Section 2.4, "Configuring Oracle E-Business Suite Logging"
- Section 2.5, "Uninstalling AXF From Oracle E-Business Suite"

> **Note:** If installing adapter solutions for Oracle PeopleSoft but not Oracle E-Business Suite, skip this chapter and complete the steps described in Chapter 3, "Configuring the Oracle PeopleSoft Suite Plug-In."

2.1 Configuring Oracle E-Business Suite Solution Components

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

This section describes how to configure Oracle E-Business Suite components for the solutions. It covers the following topics:

- Section 2.1.1, "Creating the AXF Oracle E-Business Suite Configuration Schema User (AXF)"
- Section 2.1.2, "Configuring the Oracle E-Business Suite Database"
- Section 2.1.3, "Compiling Oracle E-Business Suite Forms"
- Section 2.1.4, "Setting User Locales"

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

The adapter uses an Oracle E-Business Suite database to store PL/SQL procedures and Oracle E-Business Suite configuration information. 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 public synonym
   - Create session
   - Create procedure
   - Unlimited tablespace

2.1.2 Configuring the Oracle E-Business Suite Database

The following PL/SQL procedures are provided. (In some cases, separate Oracle E-Business Suite release 11 and 12 versions are provided.) See Section 2.1.3, "Compiling Oracle E-Business Suite Forms."

PL/SQL Procedure	Purpose
AXF_CREATE_TABLES_SYNONYM	Creates the tables and synonyms used by AXF.
AXF_EBS_PROPERTIES_DATA	Populates the AXF_PROPERTIES table with security information for various Oracle E-Business Suite calls to AXF.
AXF_APPS_INIT	Required for Oracle E-Business Suite attachment.
AXF_ADD_EBS_ATTACHMENT_PROC_R11 AXF_ADD_EBS_ATTACHMENT_PROC_R12	Creates a stored procedure that adds an attachment to a transaction in Oracle E-Business Suite.
AXF_MANAGED_ATTACHMENT_DATA AXF_MANAGED_ATTACH_AVAIL AXF_MANAGED_ATTACH_VALUES	Required for document attachment.
AXF_SOAP_CALL_PROC	Creates a stored procedure to make SOAP calls from PL/SQL.

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 releases 11 and 12.

   MW_HOME`/`*ECM_HOME*`/axf/adapters/ebs/R12/`

   MW_HOME`/`*ECM_HOME*`/axf/adapters/ebs/R11/`

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 Section 2.1.1.

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, 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
   ```

5. Log in as the APPS user.

6. 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
   ```

7. 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.

8. 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
   ```

9. 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
   ```

2.1.3 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: For information on using Oracle Forms Builder, see the following Oracle E-Business Suite documentation:

`http://www.oracle.com/technology/documentation/applications.html`

---

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/ECM_HOME*`/axf/adapters/ebs/R12/AXF_CUSTOM.pld`

   Oracle E-Business Suite 11: *MW_HOME/ECM_HOME*`/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**.

Notes:

- 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.

2.1.4 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 Oracle UCM locale.

2.2 Securing Adapter Communications for Oracle E-Business Suite

This section covers the following topics:

- Section 2.2.1, "Securing Communications Through SOAP Security"
- Section 2.2.2, "Securing Communications Through SSL"

2.2.1 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.

1. Enable SOAP security by specifying `TRUE` for the AXF_SOAP_SECURITY property in the AXF_PROPERTIES Table (Oracle E-Business Suite).
2. Set the AXF_SOAP_POLICY property to `USER_NAME_TOKEN`.
3. Set the AXF_SOAP_USER value (for example, to `weblogic`).
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.
5. Verify the previous command with this statement:

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

2.2.2 Securing Communications Through SSL

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

- Section 2.2.2.1, "Configuring the Oracle Wallet"

- Section 2.2.2.2, "Configuring the Integration for SSL"

2.2.2.1 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*).

2.2.2.2 Configuring the Integration for SSL

For more information, see "Configuring SSL" in *Oracle Fusion Middleware Securing Oracle WebLogic Server*.

1. On the Oracle E-Business Suite database, run the SQL statements listed below.

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

2. In the Oracle E-Business Suite AXF_CONFIGS table, update the SOLUTIONENDPOINT value to reflect the SecureMode setting and secure port. When SecureMode is on, the integration attempts to connect to the AXF application using SSL (https).
   - Begin the value with `https://` if SecureMode is on. Begin with `http://` if SecureMode is off.
   - Change *`Port`* to match the secure port on the ECM side.

   For the Imaging solution, see Section A.4.2. For the Managed Attachments solution, see Section B.2.1.
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 ECM side.

   For information, see "Configuring SSL for Oracle ECM Applications" in *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite*.
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 ECM side of the integration. This keystore must be enabled for both the Administration and Oracle I/PM servers. In addition, you must export the server certificate from the Oracle Weblogic Server and import it into the Oracle Wallet.

2.3 Configuring AXF-Related Oracle E-Business Suite Tables

Configure the AXF-related Oracle E-Business Suite tables to enable the AXF solution on Oracle E-Business Suite Forms using a Zoom menu and command.

- For the Imaging solution, see Section A.4.
- For the Managed Attachments solution, see Section B.2.

2.4 Configuring Oracle E-Business Suite Logging

You enable logging for specific forms in the AXF_CONFIGS table. For the Imaging solution, see Section A.4.2; for the Managed Attachments solution, see Section B.2.1.

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 Uninstalling AXF From Oracle E-Business Suite

Follow these steps to uninstall AXF from Oracle E-Business Suite.

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/ECM_HOME*`/axf/adapters/ebs/R12/AXF_DROP_TABLES_SYNONYM.sql`

   Oracle E-Business Suite 11: *MW_HOME/ECM_HOME*`/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 7 in Section 2.1.3.
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.

3

Configuring the Oracle PeopleSoft Suite Plug-In

This chapter describes how to configure the Oracle PeopleSoft plug-in for use by one or more Oracle ECM adapter solutions. It covers the following topics:

- Section 3.1, "Importing the Oracle PeopleSoft Project"
- Section 3.2, "Configuring and Securing Adapter Communications for Oracle PeopleSoft"
- Section 3.3, "Placing AXF Components on Oracle PeopleSoft Pages"
- Section 3.4, "Configuring AXF-Related Oracle PeopleSoft Tables"
- Section 3.5, "Configuring Oracle PeopleSoft Logging"
- Section 3.6, "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 Chapter 2, "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.

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.
3. From the menu, select **Tools**, then **Copy Project**, then **From File**. The Copy From File screen displays.
4. Locate the following directory.

   MW_HOME/ECM_HOME/axf/adapters/psft/
5. Select the **psft** directory, then 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 screen.
6. Click **Select**, select all definition types, and click **Copy**. The project files begin copying.
7. After all files have copied, select **Build**, then **Project** from the menu. The Build screen 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**.

3.2 Configuring and Securing Adapter Communications for Oracle PeopleSoft

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

This section covers the following topics:

- Section 3.2.1, "Securing Communications Through SSL"
- Section 3.2.2, "Configuring Integration Broker to Communicate With AXF"
- Section 3.2.3, "Configuring AXF Access For Oracle PeopleSoft Users"

3.2.1 Securing Communications Through SSL

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 ECM side.

   For information, see "Configuring SSL for Oracle ECM Applications" in *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite*.

3. Exchange server certificates between the web servers.

   For information, see "exportKeyStoreObject" in *Oracle Fusion Middleware Administrator's Guide*.

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.

For the appropriate AXF Server version, follow the steps listed to configure communication between the Integration Broker and AXF:

- Section 3.2.2.1, "Configuring Communication With an 11g AXF Server"
- Section 3.2.2.2, "Configuring Communication With a 10g AXF Server"

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

- Section 3.2.2.3, "Encrypting the Gateway Password"
- Section 3.2.2.4, "Setting Up the Service Operation Routings"
- Section 3.2.2.5, "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 With an 11g AXF Server

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_SOLUTION_MEDIATOR_11G** link.
5. On the Node Definitions tab, select the **Active Node** field. Enter a valid user name and password in the **External User ID** and **External Password** fields.

   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 AXF Server name or IP address.

8. In the **Property Value** column, set the **URL**.
   - 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 ECM side.

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

     For example:

     `https://myserver.us.oracle.com:16001/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 example:

     `http://myserver.us.oracle.com:16000/axf-ws/AxfSolutionMediatorService`
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. Proceed to Section 3.2.2.4, "Setting Up the Service Operation Routings" and Section 3.2.2.5, "Validating Domain Status."
    - If *Success* is not displayed, return to the Node Configuration page to reenter values until you can ping the node successfully.
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 Configuring Communication With a 10g AXF Server

1. In Oracle PeopleSoft Server, open **PeopleTools**, then **Integration Broker**, then **Integration Setup**. The Integration setup menu expands to show the 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 Node Name field, and click **Search**.
4. From the search results, click the **AXF_SOLUTION_MEDIATOR_10G** link.
5. Click the Connectors tab.
6. In the **Property Name** column, set **Host** to the AXF Server name or IP address.
7. In the **Property Name** column, set **URL** to the following URL:

   `http://AXF_Server name or IP address:port_number/imaging-bai-axf/AxfSolutionMediator`
8. Click **Save**.
9. 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. Proceed to Section 3.2.2.4, "Setting Up the Service Operation Routings" and Section 3.2.2.5, "Validating Domain Status."
- If *Success* is not displayed, see Section 3.2.2.3. Return to the Node Configuration page to reenter values until you can ping the node successfully.

10. Click the WS Security tab and verify that the **Authentication Token Type** field is set to None.

3.2.2.3 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. In the Gateway Properties screen, paste the encrypted password after **secureFileKeystorePasswd=** and click **OK**.

3.2.2.4 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 **11g 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**.
   - If communicating with a **10g AXF Server**, verify that the AXF_SM_ROUTING_10G 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.

3.2.2.5 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:

- Section 3.2.3.1, "Verifying the AXF_ROLE for Oracle PeopleSoft Users"
- Section 3.2.3.2, "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. The AXF_ROLE should be displayed. If it is not, follow the steps below to add it.

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 for Oracle PeopleSoft Screens

If needed, follow these steps to determine the primary keys for specific Oracle PeopleSoft screens.

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 screen.
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.
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

Screen	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
Asset Management / Asset Transactions / Owned Assets	ASSET_GENERAL_01	ASSET	BUSINESS_UNIT

Table 3–1 (Cont.) Sample Primary Keys

Screen	Page Name	Record Name	Primary Key
Asset Management / Asset Transactions / Owned Assets	ASSET_GENERAL_01	ASSET	ASSET_ID
Quick Invoice Entry	VCHR_QV_SBP_HDR	VCHR_HDR_QV	BUSINESS_UNIT
Quick Invoice Entry	VCHR_QV_SBP_HDR	VCHR_HDR_QV	VOUCHER_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_POSTSAVE_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

1. Open the AXF_PS_Integration Project in Oracle PeopleSoft Application Designer.
2. Open an Oracle PeopleSoft page to enable. For example, open VCHR_HEADER_QV2.
3. From the Pages folder, select a button or link and drag it onto the Oracle PeopleSoft page in an appropriate location.
4. Save the page.

3.4 Configuring AXF-Related Oracle PeopleSoft Tables

After placing a component on an Oracle PeopleSoft page, 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 AXF-related Oracle PeopleSoft tables as described in Section A.5.
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 AXF-related Oracle PeopleSoft tables as described in Section B.3.
2. Enter the primary screen keys you noted in Section 3.3.
3. Specify an Oracle PeopleSoft role in the PS_AXF_COMMANDS Table to grant users permission to use a specified user interface item.

3.5 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*/class 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=%d{DATE} [%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.

3.6 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 ECM installation. This chapter describes additional AXF-related configuration tasks to perform. It includes the following section:

- Section 4.1, "Configuring AXF Logging"

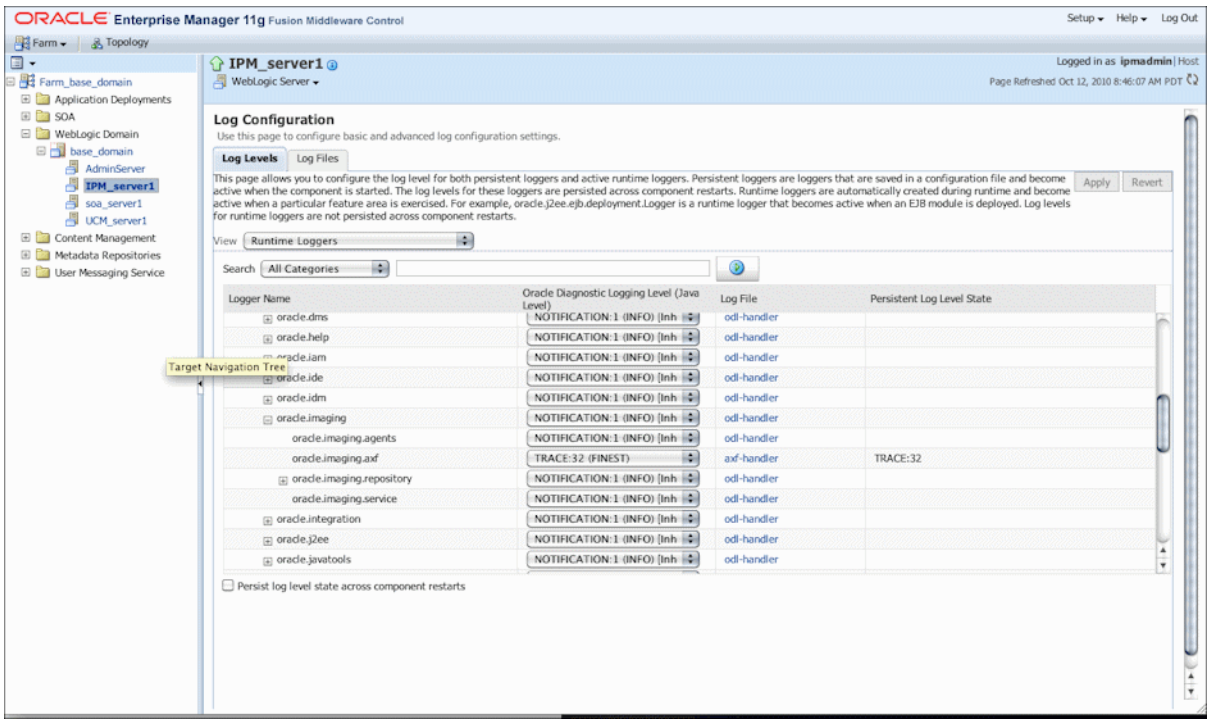
4.1 Configuring AXF Logging

You can configure logging using either of these methods:

- Section 4.1.1, "Using Enterprise Manager"
- Section 4.1.2, "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 **Logging**, then **Configure Logging**. For more information, see the Oracle Enterprise Manager documentation.



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
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.

5 Configuring the Imaging Solution

This chapter describes how to configure the following Imaging solution components:

- Section 5.1, "Configuring the BPEL Connection"
- Section 5.2, "Configuring the AXF Tables or Applying a Solution Accelerator"
- Section 5.3, "Testing Functionality Using the AXF Driver Page"
- Section 5.4, "Configuring Imaging Solution Options"

5.1 Configuring the BPEL Connection

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

- Section 5.1.1, "Creating a CSF Credential Alias"
- Section 5.1.2, "Creating a Connection in Oracle I/PM Imaging Connections"
- Section 5.1.3, "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 Oracle I/PM connection configuration. With a CSF alias, you supply a key instead of a user name and password, and use this key in creating an Oracle I/PM connection. (You can use one CSF key for multiple imaging connections.)

For information about creating keys and aliases, see the *Oracle Fusion Middleware Administrator's Guide*.

5.1.2 Creating a Connection in Oracle I/PM 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 Oracle I/PM 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 Section 5.1.1)
- 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 Oracle I/PM imaging connection to the AXF solution, as described in Section 5.1.2. 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 Appendix A, "Imaging Solution Tables."

  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 Installation with HelloWorld" in *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite*.

5.4 Configuring Imaging Solution Options

This section describes the following optional configurations for the Imaging solution:

- Section 5.4.1, "Configuring Automatic Oracle I/PM Viewer Login"
- Section 5.4.2, "Configuring Autotask Locking"
- Section 5.4.3, "Updating the Task Payload Using XPATH"

- Section 5.4.4, "Adding a Validation"
- Section 5.4.5, "Deploying Custom Commands"
- Section 5.4.6, "Configuring Chained Commands and Web Tools"
- Section 5.4.7, "Configuring a Dynamic Data Table"
- Section 5.4.8, "Reenabling PaperClip Attachments (Oracle E-Business Suite and Imaging Only)"

5.4.1 Configuring Automatic Oracle I/PM Viewer Login

Follow the steps in this section to prevent users from having to log in to Oracle I/PM the first time they access the Oracle I/PM viewer per session. You set the front end HTTP host and port so that the Oracle I/PM 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 Oracle I/PM 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 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 Section A.3.2.) 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

5.4.3 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 Section A.3.7.

5.4.3.1 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 and return a VARCHAR2. The name of the function is in the AXF configuration.

```
create or replace FUNCTION axfretrieveuserlist(  xmlPayload IN VARCHAR2 ) RETURN VARCHAR2 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);

BEGIN

    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
      userList := 'jlondon';
    else
      userList := 'jcooper,mtwain';
    end if;

    RETURN userList;

END;
```

5.4.4 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 Section A.3.9.

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 5–1 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 5–2 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 5–2 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.

3. 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 5–3 AXF_ACTIONS Table

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

5.4.5 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.

5.4.6 Configuring Chained Commands and Web Tools

Some AXF commands have parameter keys that specify what occurs after the command completes, allowing you to chain them. For example, Table 5–4 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 5–4 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
DuplicateInvoice	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	CMD_AUTOTASK_ON	AutoOpenTask
DuplicateInvoice	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	OUTCOME	DUPLICATE_INVOICE

5.4.7 Configuring 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 Section 5.4.7.1; also see Section A.2.2, "Task Viewer Web Tool."

The bottom row of Table 5–5 shows an example dynamic data table called *GL Lines* configured.

Table 5–5 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 5–6 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 5–6 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

5.4.7.1 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
```

5.4.8 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 reenable 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 Section A.4.2.2, "Example Implementation."

   For example, rename the entry as follows:

   `AXF_MANAGED_ATTACHMENTS-DISABLED`

Note: To reenable 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 Section A.4.5.

Table 5–7 AXF_PROPERTIES Values For PaperClip Use

PROPNAME	PROPVALUE
AXF_PAPERCLIP	Set to `TRUE` to enable the paperclip option, or `FALSE` to disable it.

6

Configuring the Managed Attachments Solution

This chapter describes how to configure the Managed Attachments solution. It covers the following topics:

6.1 System Requirements For Managed Attachments Solution

In addition to all other requirements listed in Section 1.6, the Managed Attachments solution includes the requirements listed in this section. For other system requirements, such as browsers, see the certification matrix at the following location:

`http://www.oracle.com/technetwork/middleware/content-management/oracle-ecm-11gr1-.xls`

Oracle I/PM 11g Release 1 (11.1.1 or higher)

Installation of Oracle I/PM 11g is required, even if configuring the Managed Attachments solution only. This is because AXF is part of the Oracle I/PM deployment.

Oracle UCM 11g Release 1 (11.1.1 or higher)

The Managed Attachments solution supports the following Oracle UCM search engines.

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

6.2 Running Managed Attachments Installation Scripts

This section describes running the following configuration scripts for the Managed Attachments solution:

- AXF_ATTACHMENTS_CONFIG.sql, an AXF script that configures AXF elements such as solutions and commands.
- AXF_EBS_ATTACHMENTS_CONFIG.sql, an Oracle E-Business Suite plug-in script that configures the Zoom menu to enable the Managed Attachments solution. (Applies to Oracle E-Business Suite use only.)

Follow these steps to run the scripts.

1. Locate the scripts in the folders specified below.
   - For Oracle E-Business Suite:

     MW_HOME/ECM_HOME/axf/adapters/ebs/R11/

     MW_HOME/ECM_HOME/axf/adapters/ebs/R12/
   - For Oracle PeopleSoft:

     MW_HOME/ECM_HOME/axf/adapters/psft/
2. Modify parameters in the **AXF_ATTACHMENTS_CONFIG.sql** script to match your environment.
   - Change the system name and port for the UCM_CONNECTION_STR parameter to match your Oracle UCM installation. The port number should correspond to that of the Oracle UCM Content Server's web server port. Change the */idc/* portion of the URL to match your Oracle UCM installation's web root (*/ucm_web_root/*).
   - Change the system name and port for the RIDC_CONNECTION_STR parameter to match your Oracle UCM installation. The port number should correspond to that of the Oracle UCM Content Server's Intradoc server port that receives RIDC calls. (To find the value for the Oracle UCM server port, locate the IntradocServerPort config value in config.cfg.)
3. Log in to the AXF Configuration Database *as the user who owns the Oracle I/PM schema* and run the AXF_ATTACHMENTS_CONFIG.sql script.

   To execute the script, enter:

   ```
   @AXF_ATTACHMENTS_CONFIG.sql
   ```

   Note: For information about creating schemas during ECM installation, see "Creating Oracle Enterprise Content Management Suite Schemas" in *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite*.
4. If configuring the adapter for Oracle E-Business Suite, modify parameters in the **AXF_EBS_ATTACHMENTS_CONFIG.sql** script to match your environment.
   - Change the system name and port in the SolutionEndPoint parameter to match your AXF system and port.
   - Modify the EBS_instanceA value to one that uniquely identifies the Oracle E-Business Suite instance you are configuring.

5. If configuring the adapter for Oracle E-Business Suite, log in to the Oracle E-Business Suite database *as the Oracle E-Business Suite plug-in schema user (AXF)* and run the AXF_EBS_ATTACHMENTS_CONFIG.sql script.

   To execute the script, enter:

   ```
   @AXF_EBS_ATTACHMENTS_CONFIG.sql
   ```

6.3 Configuring the Oracle UCM Components

Follow the sections listed below to configure Managed Attachments solution Oracle UCM components and test the completed solution.

- Section 6.3.1, "Enabling Oracle UCM Components"
- Section 6.3.2, "Verifying Required Oracle UCM Components and Configuration"
- Section 6.3.3, "Configuring the Preferences.hda File"
- Section 6.3.4, "Testing the Managed Attachments Solution"

6.3.1 Enabling Oracle UCM Components

Oracle UCM components for the Managed Attachments solution include:

- AppAdapterCore.zip (required)
- AppAdapterEBS.zip (required only for Oracle E-Business Suite integration)
- AppAdapterPSFT.zip (required only for Oracle PeopleSoft integration)

Follow these steps to enable the Oracle UCM components using Component Manager.

1. If upgrading from an earlier installation of the adapter, back up previous customizations, as described in Section 6.3.1.1.
2. Log in to Content Server as an administrator.
3. Select **Admin Server** from the Administration menu.

   The Component Manager page displays.
4. Choose **Integration**.

   The AppAdapterCore, AppAdapterEBS, and AppAdapterPSFT components are listed as Integration options.
5. Select the **AppAdapterCore** component to enable it. Also select the appropriate business application component (**AppAdapterEBS.zip** for Oracle E-Business Suite or **AppAdapterPSFT.zip** for Oracle PeopleSoft).
6. Click **Update**.
7. Restart Content Server.
8. 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 Oracle UCM components, as indicated in step 1 in Section 6.3.1.

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 Oracle UCM 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 Oracle UCM Components and Configuration

Follow these steps to verify that required Oracle UCM components are enabled on the Content Server.

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 Oracle UCM 11*g*R1 release 11.1.1.4:

   - 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, select 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 Configuring the Preferences.hda File

Installing and enabling the AppAdapter component creates a default configuration file called **preferences.hda**.

Follow these steps to modify the preferences.hda file.

1. Open the preferences.hda file in the following directory:

   UCM_Instance/data/appadapter

   This file provides Oracle UCM adapter configuration options in the ResultSet sections described in Table 6–1.

Table 6–1 ResultSet Sections in Preferences.hda File

Section	Description
AFEnvironmentConfiguration	Use to configure Oracle UCM environment variables for the adapter. For example, enable and configure scanning or AutoVue document viewing, and hide or display buttons for specified business entities. For more information, see Table 6–2 and Section 6.7, "Customizing the Managed Attachments Solution."
AFRelationshipAttributes	Use to configure custom relationships between attached documents and business entities. For example, enable attached document printing for certain business entities but not for other entities. For more information, see Section 6.7.8, "Configuring Relationship Attributes."
AFRevisionSpecificEntities	Use to enable users to access the document version that was attached, even if the document was later updated. For more information, see Section 6.7.9, "Configuring Revision-Specific Mode."

2. Scroll to the AFEnvironmentConfiguration ResultSet section, and edit the entries listed in Table 6–2 as needed. For more information about customizing the Managed Attachments solution using these variables, see Section 6.7.

> **Note:** You can specify preferences on a global, application, and application+business entity level. For more information and examples, see Section 6.7.1.

Table 6–2 Preferences.hda Environment Variables

Field	Default Value	Description
AppAdapterGrantPrivilege	W	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). For more information, see Section B.4.1, "AFGrants Table."
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 *numHours* parameter is not specified. Valid values are numbers with optional decimal. For more information, see Section B.4.1, "AFGrants Table."
AppAdapterMaxGrantHours	24	Specifies the maximum time in hours to grant the user access to the Managed Attachments screen. 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 screen from the business application at 12:00 (noon), dExpirationDate in the AFGrants Table 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 screen 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	|	This is the internal delimiter, used to concatenate primary keys and values passed as parameters. See Section B.4.1, "AFGrants Table." The default delimiter is a | (pipe) character.

ODDCURLPath		Enables document attachment scanning and importing through Oracle Distributed Document Capture. For configuration instructions, see Section 6.6. This entry specifies the web address to Oracle Distributed Document Capture.
		Format:
		`ODDCURLPath=http://ODDC_host/ODDC_webcapture_address`
		Example:
		`ODDCURLPath=http://xyz/webcapture.asp`

ODDCScanAction	1	Use to configure document attachment scanning and importing through Oracle Distributed Document Capture, as described in Section 6.6. In this entry, specify the scan action to perform, where: ■ 1 = Scan ■ 2 = Import

AutoVueURLPath		Enables AutoVue viewing of attached documents through Oracle AutoVue Web Version. For configuration instructions, see Section 6.5. This entry specifies the AutoVue servlet to run.
		Format:
		`AutoVueURLPath=http://ucm_host name:port/web_root/jsp/autovue/csiApplet.jsp`
		Example:
		`AutoVueURLPath=http://ucm1.mycompany.com/idc/jsp/autovue/csiApplet.jsp`

AppAdapterAutoVueIconVisible	false	Specifies if the **AutoVue** icon displays in the Actions column of the Managed Attachments screen. For more information, see Section 6.5.
AppAdapterDetachBtnVisible	true	Specifies if the **Detach** button displays in the Managed Attachments screen.

Table 6–2 (Cont.) Preferences.hda Environment Variables

Field	Default Value	Description
AppAdapterRefreshBtnVisible	true	Specifies if the **Refresh** button displays in the Managed Attachments screen.
AppAdapterCheckinNewBtnVisible	true	Specifies if the **New** button displays in the Managed Attachments screen.
AppAdapterRepoAttachBtnVisible	true	Specifies if the **From Repository** button displays in the Managed Attachments screen.
AppAdapterFrameLessWindowRequired	true	Specify if standard browser menu options are hidden in browser windows that open from the attachments display (true) or displayed (false).
AppAdapterConfigureBtnVisible	true	Specifies if the **Configure** button displays in the Managed Attachments screen.
AppAdapterScanBtnVisible	false	Specifies if the **Scan** button displays in the Managed Attachments screen.

3. Restart Content Server.

6.3.4 Testing the Managed Attachments Solution

Test the configuration for your selected business application by following the steps listed in the *Oracle Fusion Middleware User's Guide for Oracle Application Adapters for Oracle Enterprise Content Management*.

6.4 Configuring Authentication and Security

This section provides instructions on managing authentication and security for the Managed Attachments solution. It covers the following topics:

- Section 6.4.1, "Configuring User Authentication"
- Section 6.4.2, "Configuring Document Security"
- Section 6.4.3, "Securing Communications Between AXF and Oracle UCM"
- Section 6.4.4, "Managing Business Application and Oracle UCM Users"

6.4.1 Configuring User Authentication

Business application users must have an Oracle UCM Content Server account to display the Managed Attachments screen 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 Oracle UCM 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 Section 6.4, "Configuring Authentication and Security."

6.4.2 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 Oracle UCM user interface. This is the default security mode when checking in a new document through the Managed Attachments user interface.
- **shared**: These documents are more easily accessed than private documents, because their security is managed by Oracle UCM. In addition to access through their associated business application entity screens through the Managed Attachments user interface, any Oracle UCM user with a document's assigned security group access can search for and access the document using any standard Oracle UCM user interface.

Note: Users can view only shared documents in AutoVue (if configured). They cannot view private documents. For details, see Section 6.5.

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. 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 Oracle UCM user interface.

6.4.3 Securing Communications Between AXF and Oracle UCM

Follow these steps to enable trusted communication between the host on which AXF is running and the Oracle UCM server. On the Oracle UCM server, you have two options for this configuration step: either using the System Properties application or by editing the config.cfg file.

6.4.3.1 Using the Content Server System Properties Application

1. Open the System Properties utility for the Oracle UCM 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.

6.4.3.2 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.

6.4.4 Managing Business Application and Oracle UCM Users

Keep the following guidelines in mind when managing Oracle E-Business Suite or Oracle PeopleSoft 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 or Oracle PeopleSoft user names MUST match their Oracle UCM user names.
- When creating Oracle UCM users (global or local), add them with default roles. Do NOT select 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 Section B.4.1); or, if not specified, based on the configuration variable AppAdapterGrantPrivilege's value (see Section 6.3.3). 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.

6.5 Configuring Oracle AutoVue Document Viewing

This section covers the following topics:

- Section 6.5.1, "About Configuring Oracle AutoVue"
- Section 6.5.2, "Requirements For Oracle VueLink for Oracle UCM"
- Section 6.5.3, "Enabling AutoVue For the Adapter"

6.5.1 About Configuring Oracle AutoVue

The default document viewing option for the Managed Attachments screen is the standard web rendition provided by Oracle UCM. For enhanced viewing options, the adapter also supports Oracle AutoVue through VueLink for Oracle UCM, 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 Section 6.4.1.
- 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 in the preferences.hda file, 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 Oracle UCM. Once authenticated to Oracle UCM, 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.

6.5.2 Requirements For Oracle VueLink for Oracle UCM

Note: The requirements listed in this section apply only if providing optional document viewing with the adapter through Oracle AutoVue.

For complete installation requirements for integrating AutoVue viewing with Oracle UCM, see the system requirements section in the *Oracle VueLink 20 for Oracle UCM System Administrator Manual*. Requirements include:

- Oracle AutoVue 20 (and any service packs for AutoVue 20).
- Oracle UCM Release 11.1.1.4 (or Oracle UCM 11.1.1.3 plus Patch 9725318, UCM 11.1.1.3.0 patch (20100901-1504) available from My Oracle Support).
- Oracle VueLink 20 for Oracle UCM, the AutoVue VueLink integration for Oracle UCM.

6.5.3 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 Oracle UCM/AutoVue integration.

   Follow the procedures outlined in the *Oracle VueLink 20 for Oracle UCM System Administrator Manual*.

2. In the preferences.hda file, modify the global AutoVue setting, if needed. For general information, see Section 6.3.3.
3. 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

   Example 6–1 contains several AutoVue settings. The first entry hides the **View in AutoVue** icon globally. The next 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.

Example 6–1 AutoVue Entries in Preferences.hda File

```
AppAdapterAutoVueIconVisible
false

AutoVueURLPath
http://ucm1.mycompany.com/idc/jsp/autovue/csiApplet.jsp
PSFT_Instance_A

AppAdapterAutoVueIconVisible
true
PSFT_Instance_A

AutoVueURLPath
http://ucm1.mycompany.com/idc/jsp/autovue/csiApplet.jsp
PSFT_Instance_B
PIM

AppAdapterAutoVueIconVisible
true
PSFT_Instance_B
PIM
```

4. Restart the Content Server.

6.6 Configuring Oracle Distributed Document Capture

This section covers the following topics:

- Section 6.6.1, "About Document Scanning Using Oracle Distributed Document Capture"
- Section 6.6.2, "Oracle Distributed Document Capture and Related Components Requirements"
- Section 6.6.3, "Configuring Oracle Distributed Document Capture For the Adapter"
- Section 6.6.4, "Configuring Oracle UCM 11g for Distributed Document Capture Via Adapter"
- Section 6.6.5, "Testing the Oracle Distributed Document Capture Via Adapter Configuration"

Note: For installation requirements specific to Oracle Distributed Document Capture use with this adapter, see Section 6.6.2.

6.6.1 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 screen 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 screen. 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 (from those to which the user has access) for the shared document.

- 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 Oracle UCM 11g using a commit profile specified for the scan profile. (A Capture/Oracle UCM 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 screen and refreshes the display to view the newly scanned document or imported scanned image file.

6.6.2 Oracle Distributed Document Capture and Related Components Requirements

This section lists requirements for implementing scanning and importing functionality with Oracle Distributed Document Capture.

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, 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 UCM 11g.

  Alternately, you can install the earlier release, Oracle Distributed Document Capture 10.1.3.5, and then apply cumulative patch 9459254 or higher (available on My Oracle Support). This release does not contain the Oracle UCM 11g Commit Driver; download it from the following location, listed under Oracle Document Capture 10g Commit Drivers:

  `http://www.oracle.com/technology/software/products/content-management/index_dc.html`

- Internet Explorer 6 or above for end-users.

Note: The Mozilla Firefox browser is not supported for scan functionality via Oracle Distributed Document Capture, which currently requires Internet Explorer.

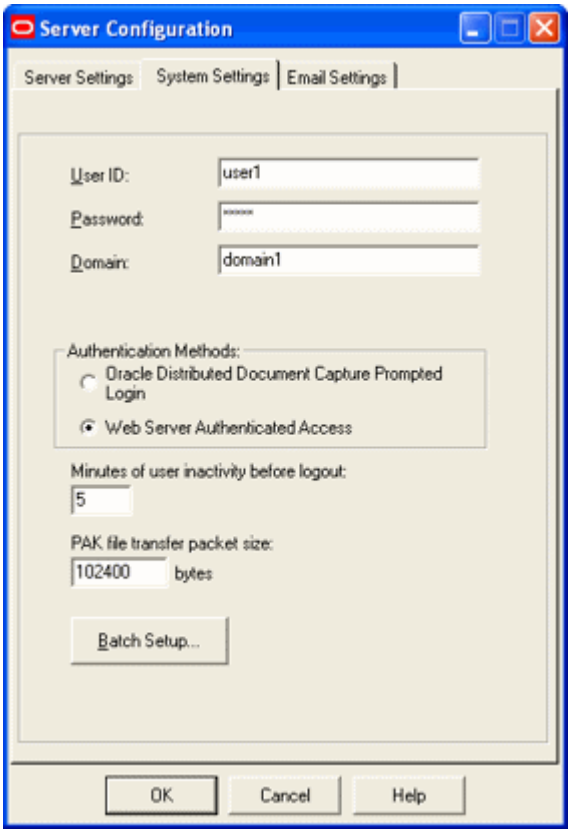
6.6.3 Configuring Oracle Distributed Document Capture For the Adapter

Follow these steps to configure attachment scanning on the Oracle Distributed Document Capture side.

1. Set Oracle Distributed Document Capture for automatic login (optional).

   On the System Settings tab of the Distributed Document Capture Server Configuration application shown in Figure 6–1, 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*.

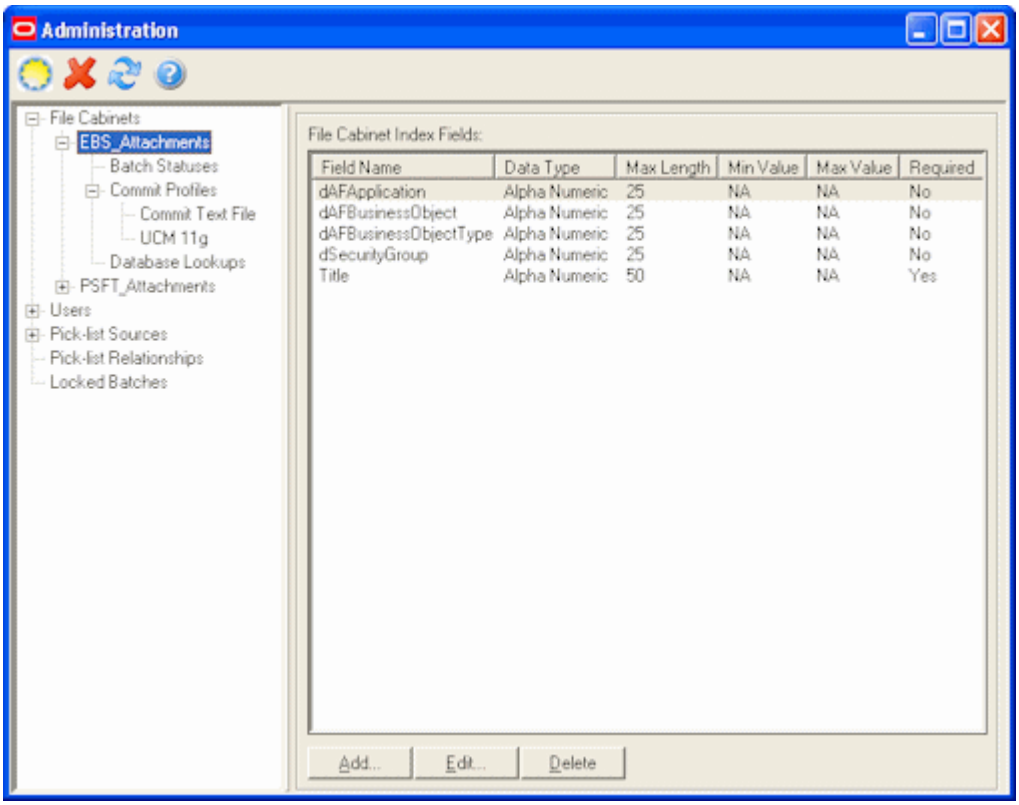
Figure 6–1 Distributed Document Capture Server Configuration, System Settings Tab



2. In Capture Administration, add index fields to a selected file cabinet for capturing values for new documents, as shown in Figure 6–2. For details, see the section on Capture Administration in the *Administrator's Guide for Oracle Distributed Document Capture*.

   - Create index fields for values you want saved 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.
   - Create the following alphanumeric index fields to contain the business application entity values and required fields:
     - dAFApplication
     - dAFBusinessObjectType
     - dAFBusinessObject
     - dSecurityGroup
     - Title

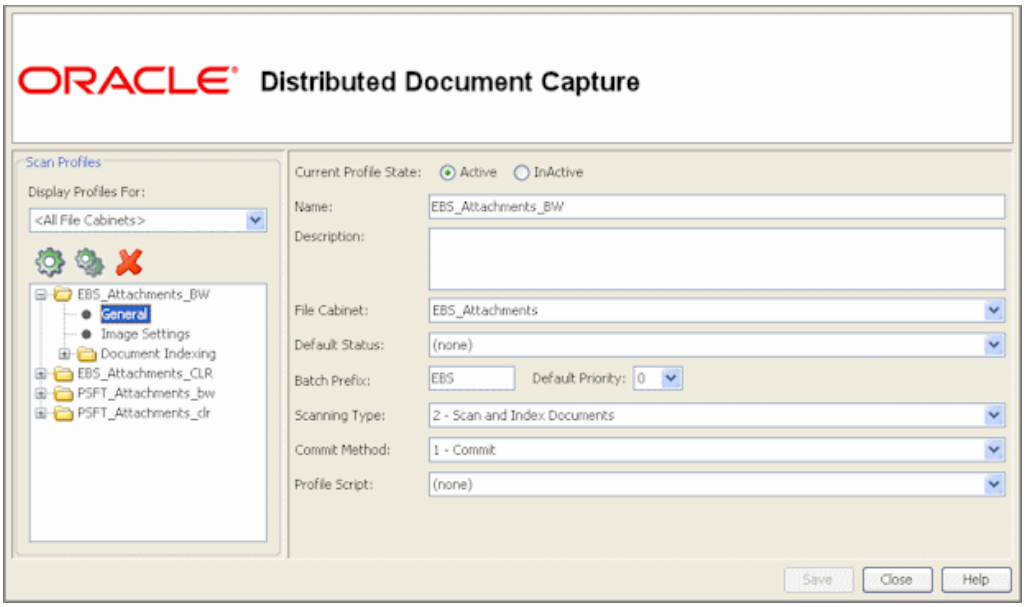
Figure 6–2 Capture Administration, Index Fields



3. In Oracle Distributed Document Capture's Profile Administration, create a scan profile, as shown in Figure 6–3. 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*.

   - 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.

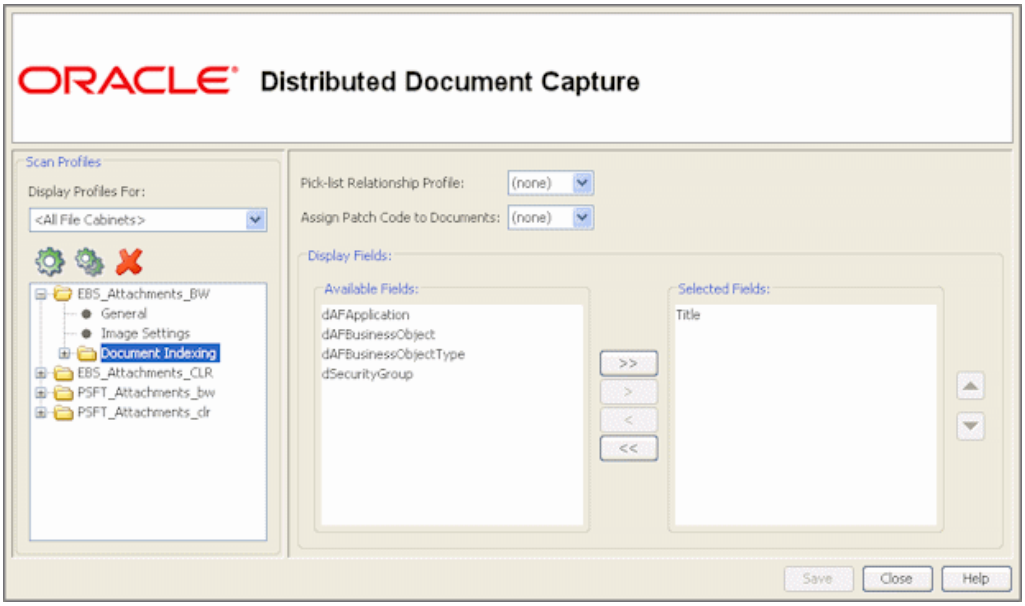
Figure 6–3 Scan Profiles, Oracle Distributed Document Capture Profile Administration



- On the Document Indexing pane, move all fields you want displayed 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 6–4 Scan Profiles, Oracle Distributed Document Capture Profile Administration



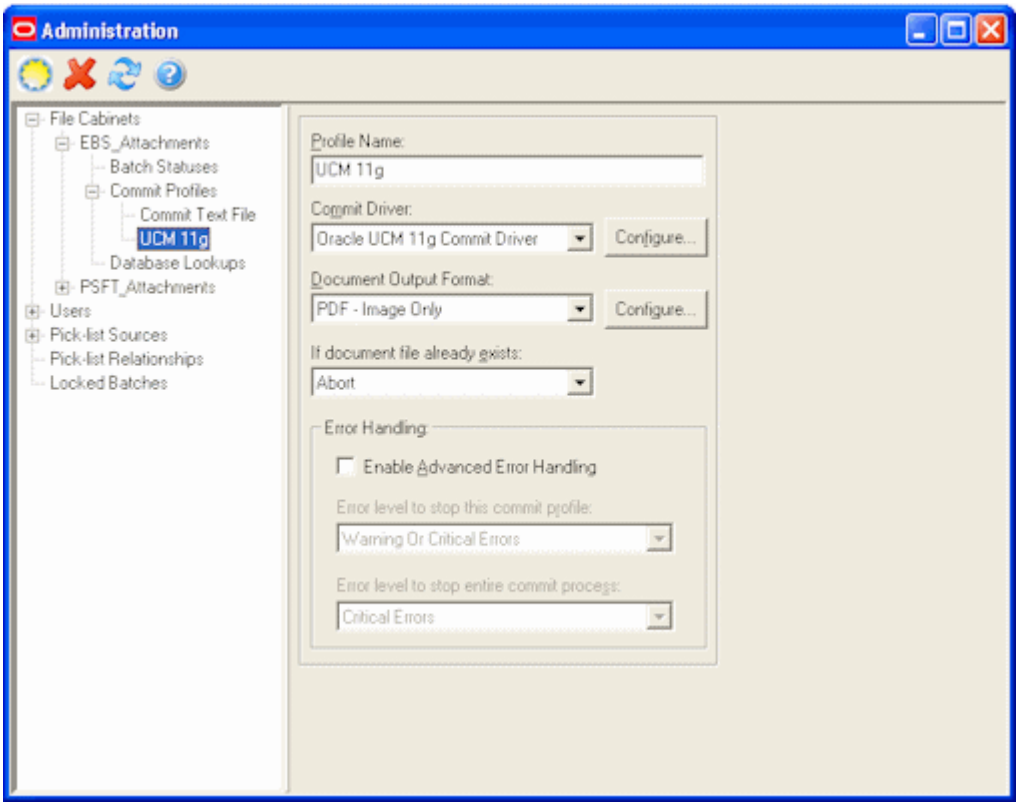
- On the Field Properties, Auto Populate, and Database Lookup panes, configure any pick-lists, database lookups, or autopopulating needed for indexing. Save the scan profile.

4. In Capture Administration, create an Oracle UCM 11g commit profile to commit the scanned or imported documents to Oracle UCM 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 Oracle UCM commit profiles, see the section on committing profiles in the *Administrator's Guide for Oracle Distributed Document Capture*.

   - 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 6–5 Commit Profile Settings



   - 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:

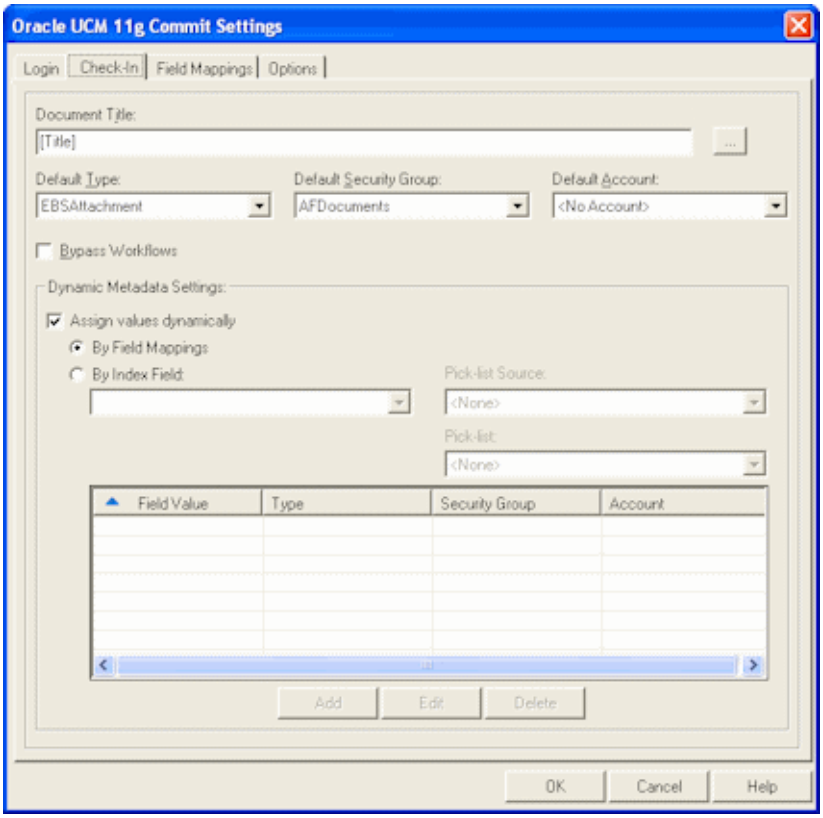
     `http://UCM host name or IP address:WebServerPort/ucm web root/idcplg`

     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.

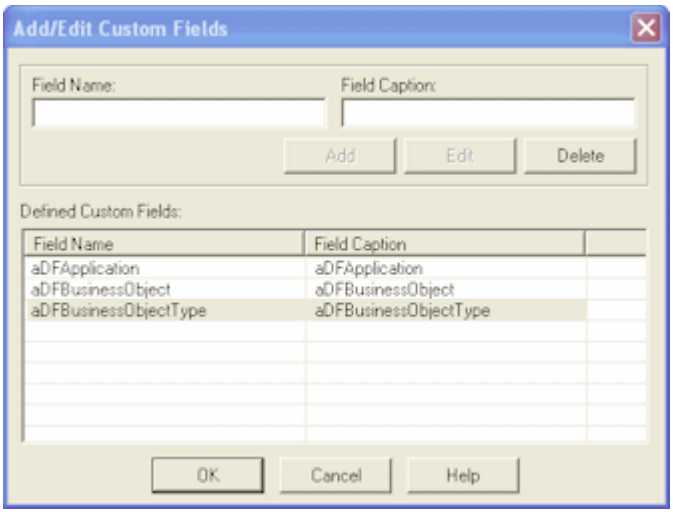
- On the Check-In tab, choose **Assign values dynamically** and **By Field Mappings** fields, as shown in Figure 6–6. Also specify how you want documents named in the **Document Title** field. It is recommended that you use the Title field.

Figure 6–6 Capture Administration, Check-In for Oracle UCM Commit Settings



- On the Field Mappings tab, click the **Add/Edit Custom Fields** button, and add the following custom fields in the Add/Edit Custom Fields screen shown in Figure 6–7:
  - dAFApplication
  - dAFBusinessObjectType
  - dAFBusinessObject

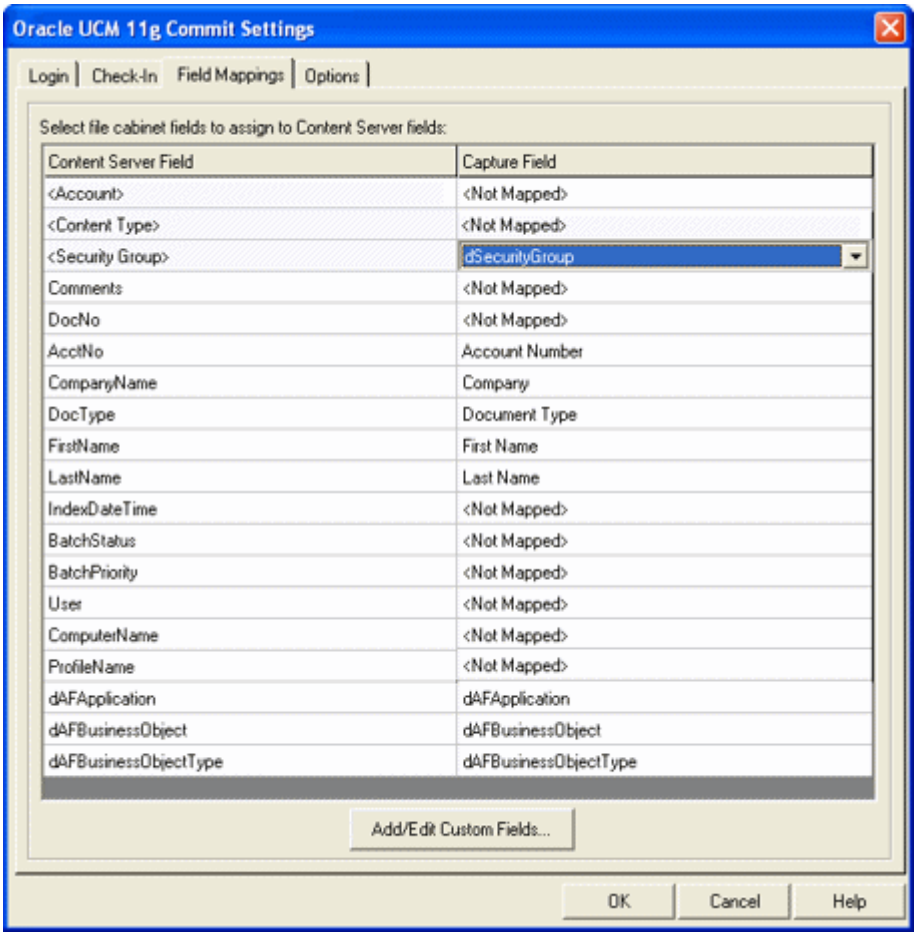
Figure 6–7 Capture Administration, Add/Edit Custom Fields



Click **OK**. The custom fields you added now display on the Field Mappings tab shown in Figure 6–8. Map these custom fields to the corresponding index fields you created in step 2, as they are required to attach the new Oracle UCM document to the business application entity. Also map other Capture fields whose values you want written to Content Server fields. Click **OK**.

- Activate the business application-Oracle UCM 11g commit profile by clicking **Commit Profiles** from the Administration tree and selecting the **Active** check box for the commit profile.

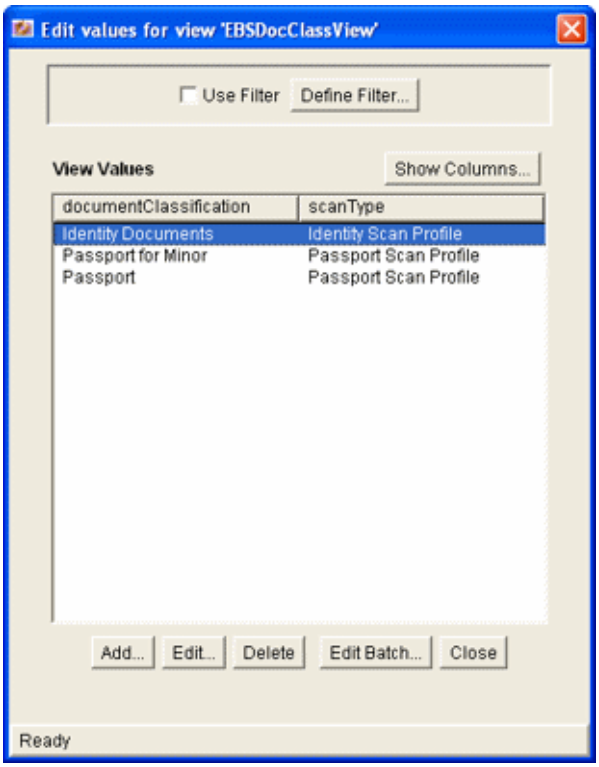
Figure 6–8 Capture Administration, Field Mappings for Oracle UCM Commit Settings



6.6.4 Configuring Oracle UCM 11g 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 Section 6.3.3.
   - `ODDCURLPath=http://ODDC_host/ODDC_webcapture_address`
   - `ODDCScanAction=ODDC Scan Action`
   - `AdapterAppScanBtnVisible=true`
2. Restart Content Server.
3. On Content Server, configure document classification and scan types.
   - From the Administration tray in Content Server, click the **Admin Applets** link.
   - Select the Configuration Manager applet. The Configuration Manager displays.
   - Click the Views tab, select the appropriate document classification view from the alphabetical list (**EBSDocClassView** for Oracle E-Business Suite or **PSFTDocClassView** for Oracle PeopleSoft), and click **Edit Values**.



4. In the Edit Values screen, 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, select **Publish schema** to publish the data.

6.6.5 Testing the Oracle Distributed Document Capture Via Adapter Configuration

Follow these steps to test the configuration as an end-user. For more information, see the *Oracle Fusion Middleware User's Guide for Oracle Application Adapters for Oracle Enterprise Content Management*.

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 only one document 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 screen and return to the Managed Attachments screen 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 display in the list. (It may take a few minutes to display.)

6.7 Customizing the Managed Attachments Solution

This section describes methods of customizing the Managed Attachments solution. It covers the following topics:

6.7.1 Customizing at Global, Application, and Business Entity Levels

You can customize settings at global, application, and business entity (application+business entity) levels in the preferences.hda file. (For general information, see Section 6.3.3.) This setting enables you to configure a global value and then customize for specific business entities, as illustrated in Table 6–3.

Notes: 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.

Table 6–3 Global, Application, and Business Entity Level Customization

Level	Customization Parameters	Example

Global	Modify the appropriate resultset setting in the preferences.hda file. Specify:
	`name`
	`value`
		This entry sets the **From Repository** button to display globally for the adapter:
		`AppAdapterRepoAttachBtnVisible`
		`true`

Application	Copy and customize a resultset row, setting dAFApplication for the application. Specify:
	`name`
	`value`
	`dAFApplication`
		This entry hides the **From Repository** button in the EBS_instance application.
		`AppAdapterRepoAttachBtnVisible`
		`false`
		`EBS_Instance`

Business Entity	Copy and customize a resultset row, setting dAFApplication and dAFBusinessObjectType for the business entity. Specify:
	`name`
	`value`
	`dAFApplication`
	`dAFBusinessObjectType`
		This entry displays the **From Repository** button for the ExpenseClaims business entity only.
		`AppAdapterRepoAttachBtnVisible`
		`true`
		`EBS_Instance`
		`ExpenseClaims`

6.7.2 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 Section 6.3.3.

3. Insert an entry that identifies the document type to use as the default type for a specified business entity, where:

   - name: afDocType
   - value: document type key
   - dAFApplication: Application to which to assign this document type
   - dAFBusinessObjectType: Business entity within application to which to assign document type

   Example 6–2 sets the document type *ExpenseClaimsType* as the default type when users attach documents to the ExpenseClaims business entity (within the PSFT_Instance application).

Example 6–2 Custom Default Document Type For Expenses Business Entity

```
afDocType
ExpenseClaimsType
PSFT_Instance
```

```
ExpenseClaims
```

4. Restart the Content Server.

6.7.3 Customizing the Content Server Profile Used

The adapter provides a default Content Server profile for each business application, called *EBSProfile* for Oracle E-Business Suite and *PSFTProfile* for Oracle PeopleSoft. You can copy and customize the profile, then assign it using one of the methods described below, depending on customization needs. For example, you might want to add metadata fields to the profile.

> **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.

6.7.3.1 Changing the Profile Globally

Follow these steps to change the global profile used.

1. From the Content Server Configuration Manager, copy the default profile provided (EBSProfile or PSFTProfile). 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 Section B.1.3.

6.7.3.2 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 or PSFTProfile). 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 Section 6.3.3.
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 6–3 sets a profile called *OrderPayableProfile* for use when users attach or scan documents in the OrderPayables business entity within the EBS_Instance application.

Example 6–3 Custom Content Server Profile For Expenses Business Entity

```
dpTriggerValue
OrderPayableProfile
EBS_Instance
OrderPayables
```

5. Restart the Content Server.

6.7.4 Hiding or Displaying Managed Attachments Screen Buttons

You can choose to disable (hide) or display the buttons listed in Table 6–4 to users on the Managed Attachments screen, by changing their environment variable setting to false. For details about Oracle UCM configuration variables, see Section 6.3.3.

Table 6–4 Environment Variables For Displaying or Hiding Managed Attachments Buttons

Environment Variable	Description
AppAdapterRepoAttachBtnVisible	Displays or hides the **From Repository** button
AppAdapterRefreshBtnVisible	Displays or hides the **Refresh** button
AppAdapterConfigureBtnVisible	Displays or hides the **Configure** button
AppAdapterDetachBtnVisible	Displays or hides the **Detach** button
AppAdapterCheckinNewBtnVisible	Displays or hides the **New** button
AppAdapterScanBtnVisible	Displays or hides the **Scan** button
AppAdapterAutoVueIconVisible	Displays or hides the **AutoVue** button in the Actions column

Follow these steps to hide or display a button globally, or for a specific business entity or application.

1. In the preferences.hda file, add a new row in the AFEnvironmentConfiguration resultset.
2. Insert an entry that identifies the button from the list in Table 6–4 to disable or enable, and the level.

   Example 6–4 displays the **From Repository** button globally but then hides it for the ExpenseClaims business entity (within the EBS_Instance application).

Example 6–4 Displaying and Hiding the From Repository Button

```
AppAdapterRepoAttachBtnVisible
true

AppAdapterRepoAttachBtnVisible
false
EBS_Instance
ExpenseClaims
```

3. Restart the Content Server.

6.7.5 Customizing Scanning

This section describes methods of customizing scanning functionality using Oracle Distributed Document Capture. It includes the following topics:

- Section 6.7.5.1, "Enabling or Disabling Scanning"
- Section 6.7.5.2, "Configuring an Alternate Scan Profile For a Business Entity"
- Section 6.7.5.3, "Modifying the Document Classification Used"

For information about configuring standard scanning options, see Section 6.6. For information about the preferences.hda file, see Section 6.3.3.

6.7.5.1 Enabling or Disabling Scanning

You can enable or disable scanning at the global, application, or business entity level. In Example 6–5, scanning is disabled globally but enabled for the OrderPayables business entity.

Example 6–5 Customized Scanning in Preferences.hda File

```
AppAdapterScanBtnVisible
false

AppAdapterScanBtnVisible
true
EBS_Instance
OrderPayables
```

6.7.5.2 Configuring an Alternate Scan Profile For a Business Entity

The adapter provides two default business application scan profiles. Each points to an application-specific field:

- *EBSScanProfile* references the EBSAppScanProfiles application field
- *PSFTScanProfile* references the PSFTAppScanProfiles 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.
2. Create all required schema elements, including the AppScanProfiles application field, table, and view.

   To change the application field reference, log in to Oracle UCM. In Configuration Manager, navigate to the Rules tab. Select **PSFTScanRule** or **EBSScanRule**, 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.

   Example 6–6 shows a scan profile called *MyPIMScanProfile* enabled for the PIM business entity only.

Example 6–6 Enabling Another Scan Profile for a Business Entity

```
afScanProfile
MyPIMScanProfile
PSFT_Instance
PIM
```

6.7.5.3 Modifying the Document Classification Used

The adapter provides two default business application document classifications for scanning. Each classification includes a set of Oracle UCM application fields, a table, and a view.

- For Oracle E-Business Suite, the adapter provides EBSAppScanProfiles (fields), EBSDocClass (table), and EBSDocClassView (view)
- For Oracle PeopleSoft, the adapter provides PSFTAppScanProfiles (fields), PSFTDocClass (table), and PSFTDocClassView (view)

To modify the classification, perform the following steps.

1. Log in to Oracle UCM. In Configuration Manager, navigate to the EBSDocClassView or PSFTDocClassView.
2. Edit the document classification and scan type values. For more information, see Section 6.6.4.

6.7.6 Customizing Managed Attachments Screen Images

The adapter provides standard images for Managed Attachments display, which you can customize. For example, you might change the Oracle blue waves image with one specific for your organization. To change images, override the resource include *af_ebs_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.

6.7.7 Customizing the Screen Style Sheet (CSS) Used

The adapter provides a standard style sheet for the Managed Attachments screen. 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.

6.7.8 Configuring Relationship Attributes

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 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 Relationship Attributes

- You can configure relationship attribute for new document check-in, but not for documents checked in through scanning.
- At run-time, relationship attribute values are stored in the AFRelationshipAttributes table; see Section B.4.3.

Follow these steps to configure 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. Open the preferences.hda file and add a new row in the AFRelationshipAttributes resultset. (For general information, see Section 6.3.3.)

   Each row in the resultset represents one relationship attribute associated with a business object, where:

   - *dAFApplication* refers to the Oracle E-Business Suite or Oracle PeopleSoft business application for which the relationship attribute is configured.
   - *dAFBusinessObjectType* refers to the Business Object for which to enable the relationship attribute.
   - *attribute* refers to the relationship attribute.

   Example 6–7 shows a relationship attribute (Print) configured for an WO1 business object for an Oracle PeopleSoft application.

Example 6–7 AFRelationshipAttributes Customization

```
@ResultSet AFRelationshipAttributes
3
dAFApplication
dAFBusinessObjectType
attribute
PSFT_Instance
WO1
Print
@end
```

6. Save and restart Content Server.

6.7.9 Configuring Revision-Specific Mode

By default, each attachment in the Managed Attachments screen 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. Open the preferences.hda file, and add a new row in the AFRevisionSpecificEntities resultset. (For general information, see Section 6.3.3.)

   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.

   Example 6–8 shows revision-specific mode configured for a CallRecords business object for an Oracle E-Business Suite application.

Example 6–8 AFRevisionSpecificEntities Customization

```
@ResultSet AFRevisionSpecificEntities
2
dAFApplication
dAFBusinessObjectType
EBS_Instance
CallRecords
@end
```

6.7.10 Changing the Result Count

The Managed Attachments screen 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 screen. By default, ResultCount is set to 5. You can change it to another number (such as 20) by specifying a new ResultCount number in the UCM_CONNECTION_STR parameter of the AXF_SOLUTION_PARAMETERS Table. Also see Section B.1.3.2, "Example Implementations."

6.7.11 Changing the Result Template

The Managed Attachments screen uses a result template to determine its display. The Content Server result template specifies the Managed Attachments user interface. The adapter provides two default 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**.

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 Oracle E-Business Suite or Oracle PeopleSoft 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

2. In the preferences.hda file, add an entry in the AFEnvironmentConfiguration section as follows:

```
ResultTemplate
<Template Reference>
<Application Name>
<Business Entity>
```

   In Example 6–9, 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.

Example 6–9 Preferences.hda Entry For Specifying a Custom Result Template

```
ResultTemplate
EBS_WORK_ORDER_LIST
EBS_Instance
WorkOrder
```

6.7.12 Setting Default Columns

You can specify the default columns to display to users in the Managed Attachments screen. (When the user clicks **Reset** in the Configure Fields for Display screen, default columns are listed in the Main Information section of the screen.)

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 Oracle UCM metadata field names.

   In Example 6–10, 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.

Example 6–10 Preferences.hda Entries For Specifying Default Columns

```
AppAdapterDefaultDisplayColumns
dDocTitle,dDocType,dDocAuthor,dInDate
EBS_Instance

AppAdapterDefaultDisplayColumns
dDocTitle,dDocType,dDocAuthor,dInDate,dRevision
EBS_Instance
CallRecords
```

6.7.13 Enabling the Paperclip with Attachments (Oracle E-Business Suite 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 below.

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

1. Add the following row to the AXF_PROPERTIES table:

Table 6–5 AXF_PROPERTIES Values For PaperClip Use

PROPNAME	PROPVALUE
AXF_PAPERCLIP	Set to `true` to enable the paperclip option, or `false` (default) to disable it.

For more information, see Section B.2.5.

6.8 Configuring Oracle UCM Logging

For information about Oracle UCM Content Server logging, see the *Oracle Fusion Middleware System Administrator's Guide for Universal Content Management*.

6.9 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

For details about these components, see Section 6.3.1.

1. Log in to Content Server as an administrator.
2. Select **Admin Server** from the Administration menu.

   The Content Admin Server page displays.
3. Click 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

Imaging Solution Tables

This appendix describes the AXF and business application configuration tables used for the Imaging solution, including commands, web user interface tools, and example implementations. This appendix covers the following topics:

A.1 AXF Tables For the Imaging Solution

This section describes the following AXF tables.

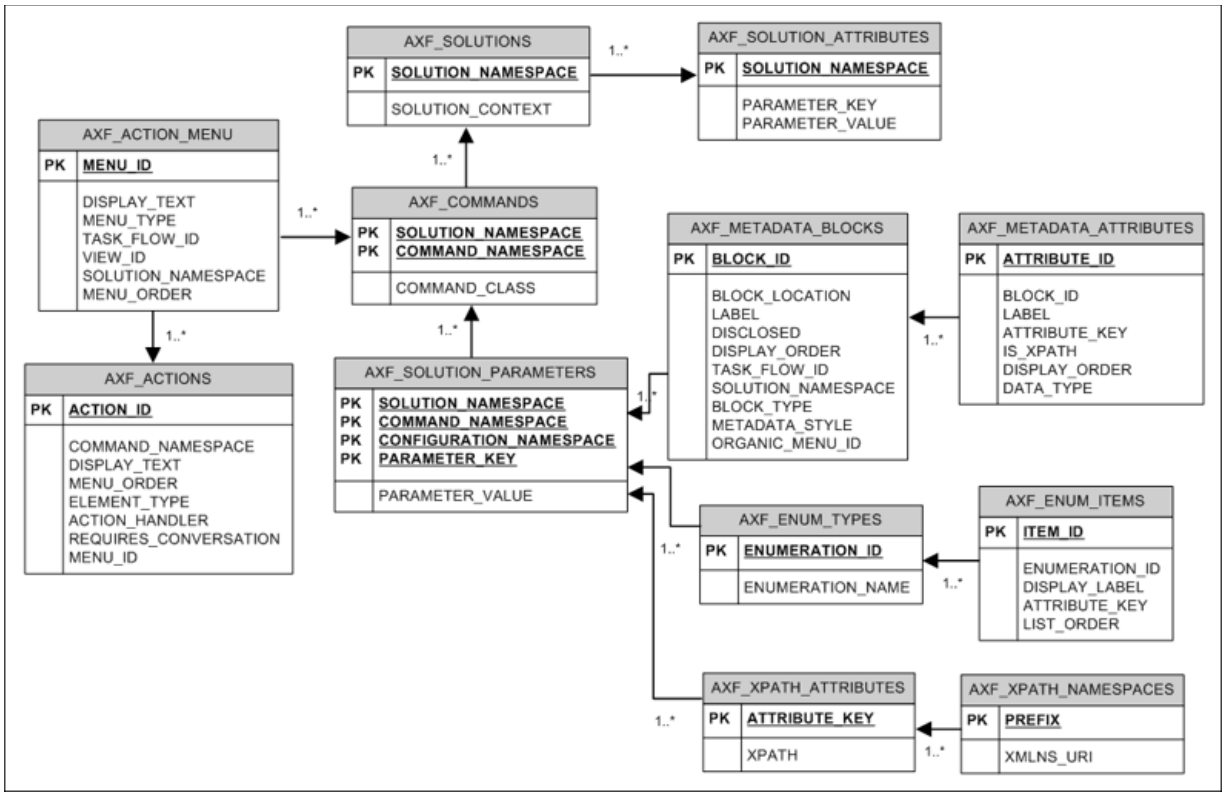
Note: Running an AXF and an Oracle BPM Worklist session at the same time can result in the session first opened ending. For example, launching an AXF session with an Oracle BPM Worklist session open ends the BPM Worklist session.

This conflict occurs because console session information is retained in browser cookies whose names are domain specific, but default to the same initial value. To prevent this conflict, set cookie names unique for each domain. To set cookie names, use the console on the advanced section of the Domain Configuration/General page.

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 Installation with HelloWorld" in *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite*.

The diagram that follows displays the AXF configuration tables and their relationships.

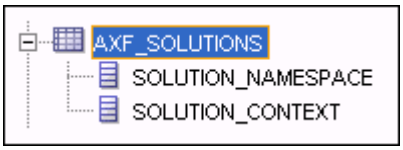
Figure A–1 AXF Configuration Tables (Imaging Solution)



AXF Table	Description
AXF_SOLUTIONS Table AXF_SOLUTION_ATTRIBUTES Table	Define AXF solutions, and general parameters for infrastructure, services, and solutions.
AXF_COMMANDS Table	Define AXF commands within solutions.
AXF_SOLUTION_PARAMETERS Table	Define parameters for AXF commands and AXF web tools.
AXF_ACTION_MENU Table AXF_ACTIONS Table	Define task action pane itself and links in the pane.
AXF_METADATA_BLOCKS Table, AXF_METADATA_ATTRIBUTES Table	Define optional sections, such as Summary, Comments, and dynamic data tables in the Task Viewer.
AXF_ENUM_TYPES Table, AXF_ENUM_ITEMS Table	Define enumeration pickers and their values.
AXF_XPATH_ATTRIBUTES Table, AXF_XPATH_NAMESPACES Table	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.



A.1.1.1 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.

A.1.1.2 Example Implementation

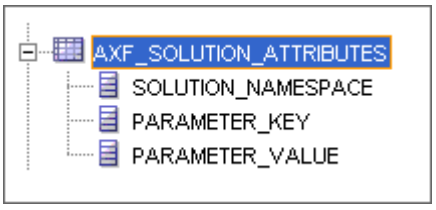
This example table shows the AXF solutions defined. Each of the solutions uses AxfCommandMediator as its solution implementation.

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.



A.1.2.1 Column Description

Table A–3 Column Description for AXF_SOLUTION_ATTRIBUTES Table

Column	Description
SOLUTION_NAMESPACE	Specifies the solution namespace that uses this parameter.

Table A–3 (Cont.) Column Description for AXF_SOLUTION_ATTRIBUTES Table

Column	Description
PARAMETER_KEY	Name of the parameter. Used when retrieving the parameter value from the database. Parameters include: ▪ BPEL_CONNECTION: Identifies the BPEL connection to use. ▪ CONNECTION_PROVIDER: Defines the connection (BPEL or custom). If specifying a BPEL connection, this value is *AxfWorkflowServiceModule*. ▪ ConversationTimeoutSeconds: Specifies the length of time for which a ConversationID (cid) is valid. The default is 43200 seconds of inactivity. ▪ 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 Section 5.4.2.
PARAMETER_VALUE	Value of the parameter.

A.1.2.2 Example Implementation

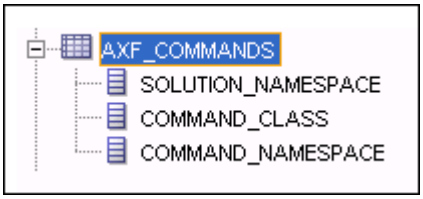
This example table sets solution attributes for the Invoice Processing solution.

Table A–4 Example AXF_SOLUTION_ATTRIBUTES Table

SOLUTION_ NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
InvoiceProcessing	BPEL_CONNECTION	axfconnection
InvoiceProcessing	CONNECTION_PROVIDER	oracle.imaging.axf.servicemodules.bpel.workflow.AxfWorkflowService Module
InvoiceProcessing	USE_AUTOTASK_LOCKING	TRUE

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.



A.1.3.1 Column Description

Table A–5 Column Description for AXF_COMMANDS Table

Column	Description
SOLUTION_NAMESPACE	The name of the solution, as defined in the AXF_SOLUTIONS Table.
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 Section A.3.

A.1.3.2 Example Implementation

This example shows commands defined for the Invoice Processing solution.

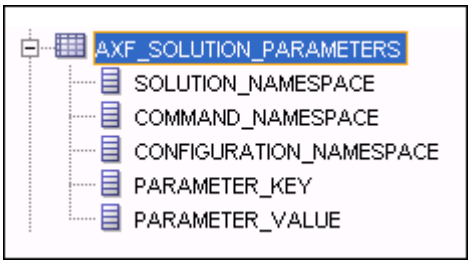
Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–6 Example AXF_COMMANDS Table

COMMAND_CLASS	COMMAND_NAMESPACE
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.bepl.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
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 web tools.



A.1.4.1 Column Description

Table A–7 Column Description for AXF_SOLUTION_PARAMETERS Table

Column	Description
SOLUTION_NAMESPACE	Identifies the solution namespace, as defined in the AXF_SOLUTIONS Table.
COMMAND_NAMESPACE	Specifies the command name, as defined in the AXF_COMMANDS Table.
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 command or web tool: Web Tools: ■ Section A.2.1, "Task List Web Tool" ■ Section A.2.2, "Task Viewer Web Tool" ■ Section A.2.3, "Enumeration Picker Web Tool" ■ Section A.2.4, "Identity Picker Web Tool" ■ Section A.2.2.3, "Comments" AXF Commands: ■ Section A.3.1, "Open Task Command" ■ Section A.3.2, "Autotask Command" ■ Section A.3.3, "Release Task Command" ■ Section A.3.4, "Complete Task Command" ■ Section A.3.5, "Redirect Command" ■ Section A.3.6, "Update Task Command" ■ Section A.3.7, "Update Task From Procedure Command" ■ Section A.3.9, "Validate Task Command"
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 AXF_XPATH_ATTRIBUTES Table.

A.1.4.2 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.

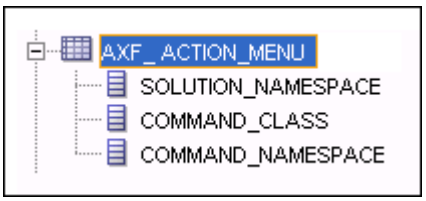
Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

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.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	NO_OF_LINES	20
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	SHOW_INBOX	FALSE
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	CONNECTION_ NAME	default
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.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 screen. 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.



A.1.5.1 Column Description

Table A–9 Column Description for AXF_ACTION_MENU Table

Column	Description
MENU_ID	Specifies a primary key to the AXF_ACTIONS Table, identifying the menu in which to place menu actions.
DISPLAY_TEXT	Specifies the pane's title (for example, *Task Actions*, *Shortcuts*, or *Re-Assignments*).
MENU_TYPE	Specifies where on the screen the menu is displayed and its type. (LEFT_SIDEBAR displays a side pane leftmost on the screen.)
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 `axf-tasklist-tfd`, which identifies the page that shows the menu.
VIEW_ID	(Reserved for future use.)

Table A–9 (Cont.) Column Description for AXF_ACTION_MENU Table

Column	Description
SOLUTION_NAMESPACE	Identifies the AXF solution, as defined in the AXF_SOLUTIONS Table.
MENU_ORDER	Defines the order in which the menu is displayed when multiple menus are set for display.

A.1.5.2 Example Implementation

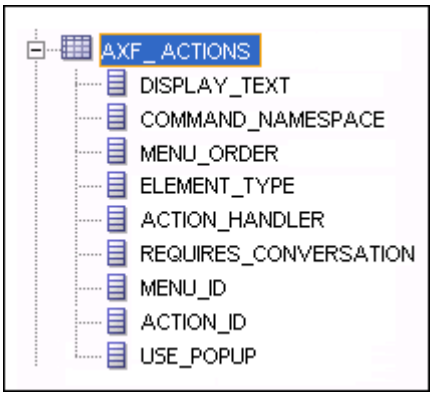
This example table implements a pane entitled *Task Actions* in the left side of the Task Viewer for the Invoice Processing solution.

Table A–10 Example AXF_ACTION_MENU

MENU_ID	DISPLAY_TEXT	MENU_TYPE	TASK_FLOW_ID	VIEW_ID	SOLUTION_NAMESPACE	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 Section A.2.2) or a Task List (see Section A.2.1). This table links to the AXF_COMMANDS Table.



A.1.6.1 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 AXF_COMMANDS Table.
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. **Note:** If left (null), this value defaults to COMMAND.
REQUIRES_ CONVERSATION	Specifies whether the action requires a conversation ID to already be initialized.

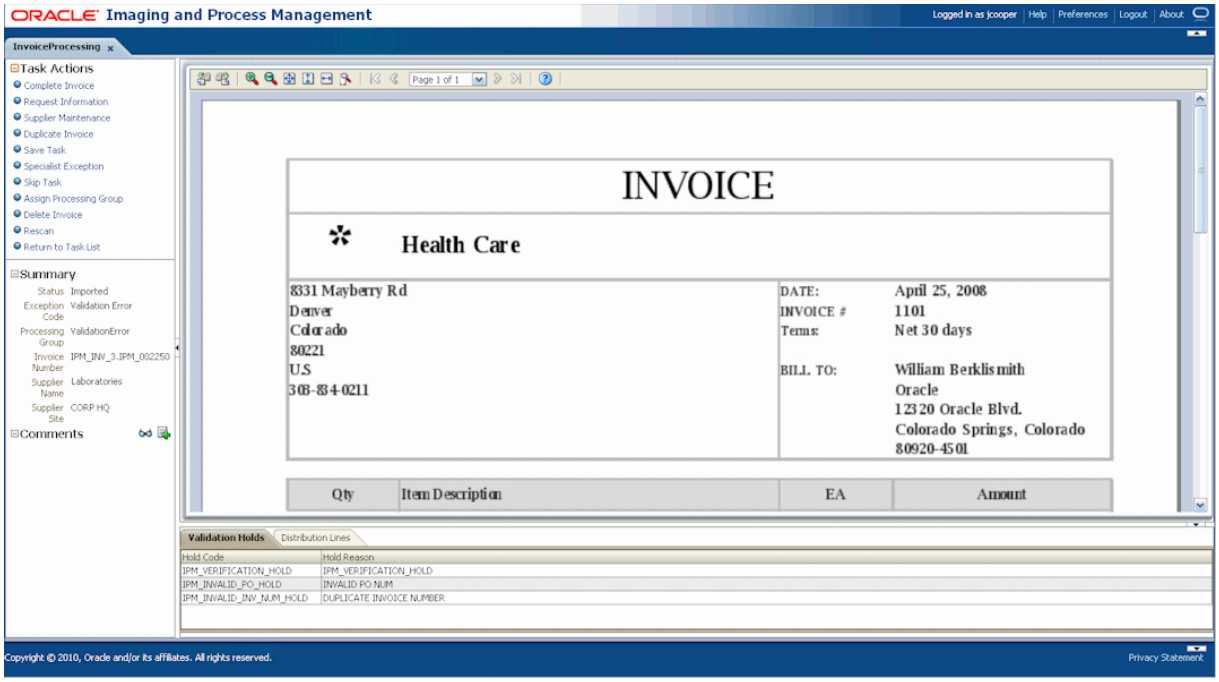
Table A–11 (Cont.) Column Description for AXF_ACTIONS Table

Column	Description
MENU_ID	Specifies the ID from the AXF_ACTION_MENU Table 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.

A.1.6.2 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:

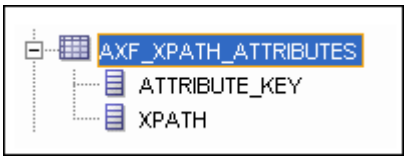
- ACTION_HANDLER=COMMAND
- REQUIRES_CONVERSATION=TRUE

Table A–12 Example AXF_ACTIONS Table

DISPLAY_TEXT	COMMAND_ NAMESPACE	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.



A.1.7.1 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 AXF_SOLUTION_PARAMETERS Table.
XPATH	XPATH expression used to locate the value in the payload.

A.1.7.2 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_ProcessingGroup

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

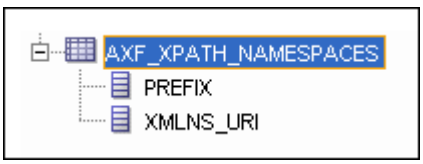
In the AXF_NAMESPACES table that follows, the XMLNS_URI column displays where within the XML file to locate the processingGroup task information.

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.



A.1.8.1 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.

A.1.8.2 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

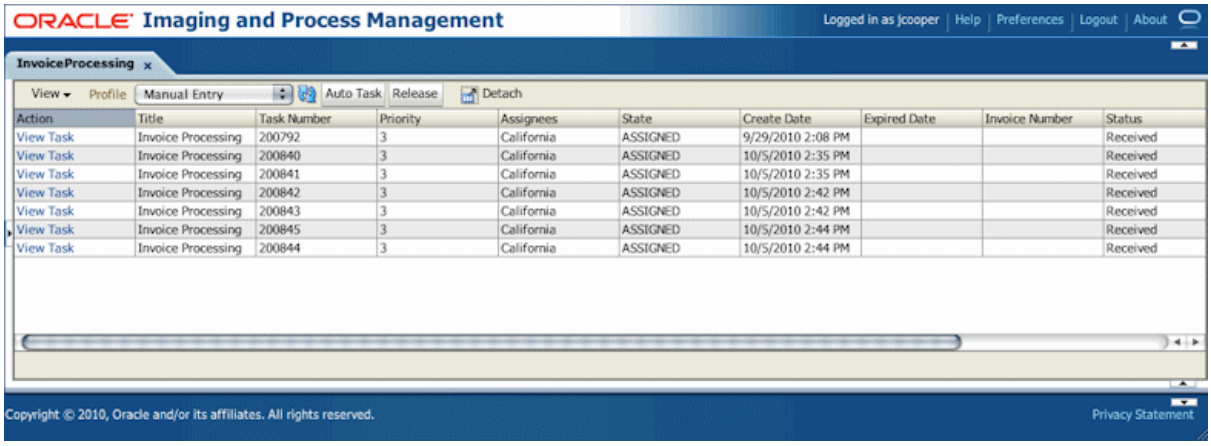
A.2 AXF Web User Tools For the Imaging Solution

This section covers the following topics:

- Section A.2.1, "Task List Web Tool"
- Section A.2.2, "Task Viewer Web Tool"
- Section A.2.3, "Enumeration Picker Web Tool,"
- Section A.2.4, "Identity Picker Web Tool"

A.2.1 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.



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

BPM Worklist application to create views and share them with other users or groups.)

- 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.
- 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.
- You can configure the Task List to include a side pane action list with links.

A.2.1.1 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.
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.

A.2.1.2 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

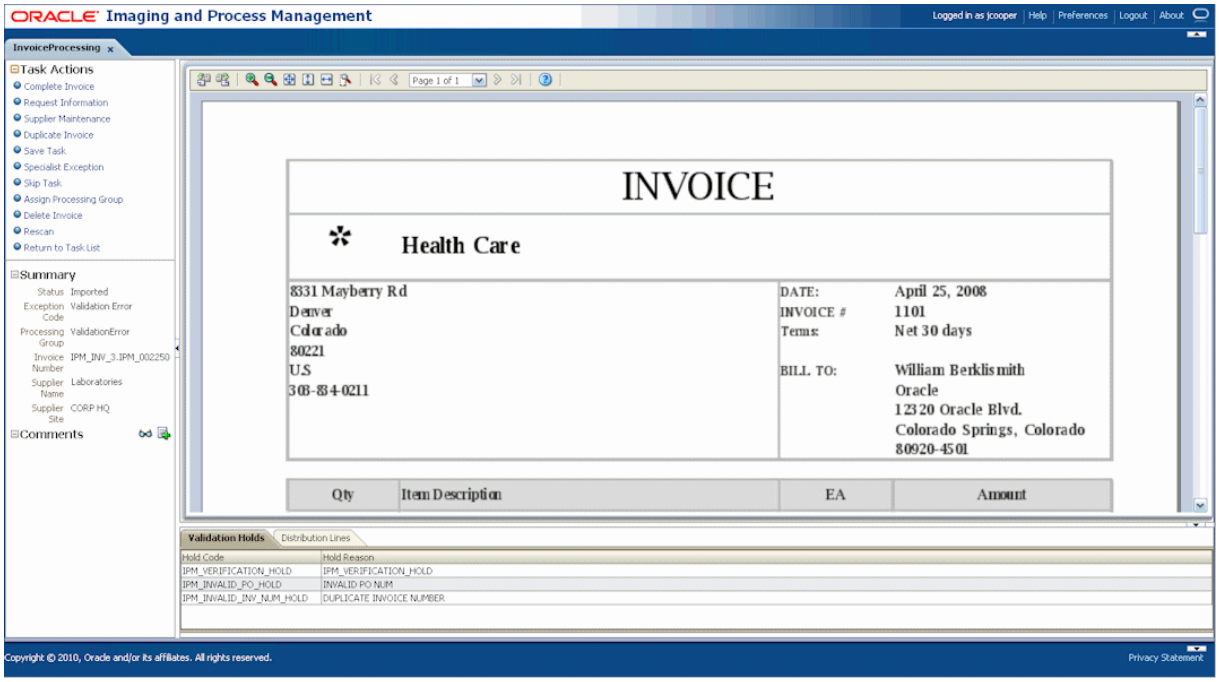
Table A–20 (Cont.) Example Task List Parameters in AXF_SOLUTION_PARAMETERS Table

COMMAND_ NAMESPACE	CONFIGURATION_ NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
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.2.2 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.

You can customize the web page through database configuration.



Task Viewer Features

- Users view Oracle I/PM image documents in the Image Viewer pane, using either the basic or advanced Oracle I/PM viewer mode. The Task Viewer uses the Oracle I/PM 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 Section 5.4.7.

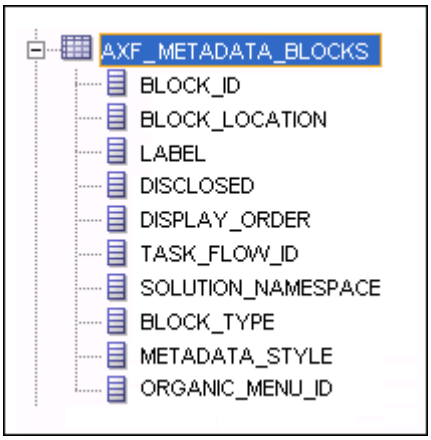
Configuring the Task Viewer

You configure the Task Viewer in the following tables:

- Section A.1.4, "AXF_SOLUTION_PARAMETERS Table"
- Section A.1.5, "AXF_ACTION_MENU Table"
- Section A.1.6, "AXF_ACTIONS Table"
- Section A.2.2.1, "AXF_METADATA_BLOCKS Table"
- Section A.2.2.2, "AXF_METADATA_ATTRIBUTES Table"

A.2.2.1 AXF_METADATA_BLOCKS Table

This table defines the task viewer itself and its sections for display on the Task Viewer page.



A.2.2.1.1 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 AXF_METADATA_ATTRIBUTES Table.
BLOCK_LOCATION	Specifies where the block displays on the Task Viewer page. *LEFT_SIDEBAR* displays a left sidebar pane.
LABEL	Defines the pane's label (for example, *Summary* or *Comments*).

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, *axf-taskviewer-tfd* or *axf-tasklist-tfd*).
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 `null` (not used) or `table`. Specify `table` to display a table of dynamic data from the BPEL payload XML in the bottom tabs. See Section 5.4.7.1, "Formatting XML Data For a Dynamic Data Table." Note that this block displays only if there is data available. To configure a dynamic table, the following values must be specified: BLOCK_LOCATION = `BOTTOM_PANEL` BLOCK_TYPE = `METADATA` METADATA_STYLE = `table`
ORGANIC_MENU_ID	Reserved for future use.

A.2.2.1.2 Example Implementation

This table displays the Summary and Comments section on the Task Viewer page.

Columns not shown: DISCLOSED=TRUE

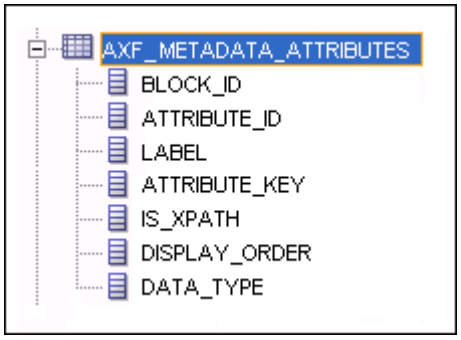
ORGANIC_MENU_ID=null

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.2.2.2 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.



A.2.2.2.1 Column Description

Table A–23 Column Description for AXF_METADATA_ATTRIBUTES Table

Column	Description
BLOCK_ID	References the AXF_METADATA_BLOCKS Table 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, *Status* 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 Section A.3.6.2) 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 AXF_XPATH_ATTRIBUTES Table 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.

A.2.2.2.2 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 Section 5.4.7, "Configuring a Dynamic Data Table."

Columns not shown:

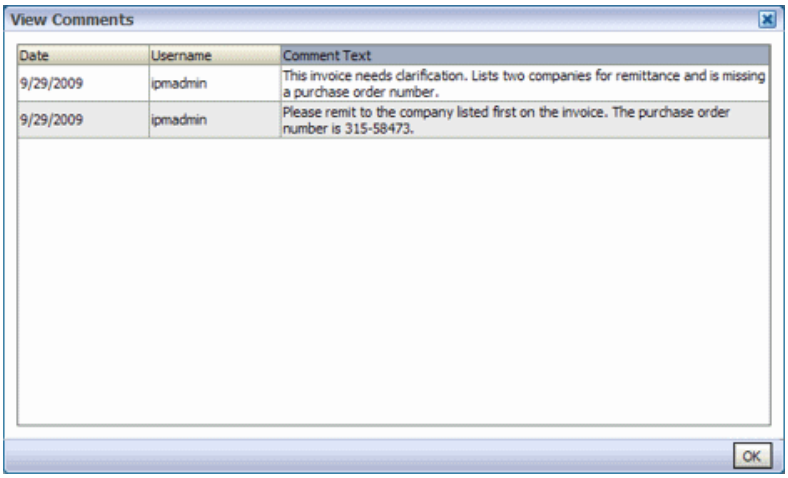
DATA_TYPE=String

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.2.2.3 Comments

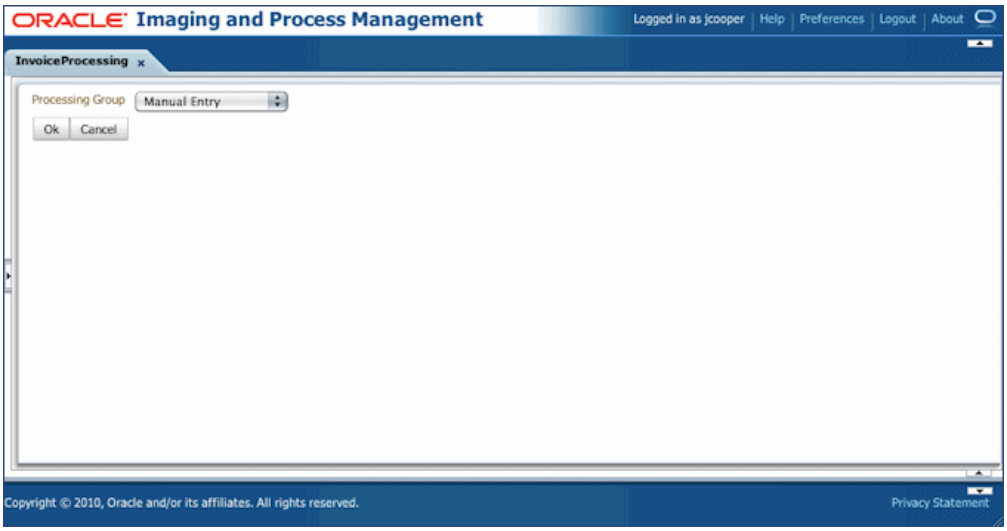
The Comments pane enables users to view and enter comments related to the human task during the transaction's processing. You configure comments in the AXF_METADATA_BLOCKS Table. Also see Section 1.2.4.5, "About Comments."



A.2.3 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 Processing Group dropdown field containing North, South, East, and West values.

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.

A.2.3.1 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 AXF_ENUM_TYPES Table, whose ID value links to the AXF_ENUM_ITEMS 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 Section A.3.6.2, "System Attributes." If the value has an XPATH: prefix, the value comes from the AXF_XPATH_ATTRIBUTES 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.
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.

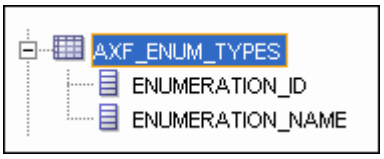
Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

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	AssignProcessingGroupComplete
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.2.3.2 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

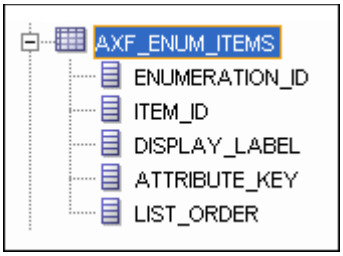
This example defines enumeration pickers for the Invoice Processing solution. You define each picker's items in the AXF_ENUM_ITEMS Table.

Table A–28 Example AXF_ENUM_TYPES Table

ENUMERATION_ID	ENUMERATION_NAME
1	ProcessingGroups
2	SupplierMaintenanceCodes
3	SpecialistExceptionCodes
4	RescanCodes

A.2.3.3 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 AXF_ENUM_TYPES Table.
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.
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

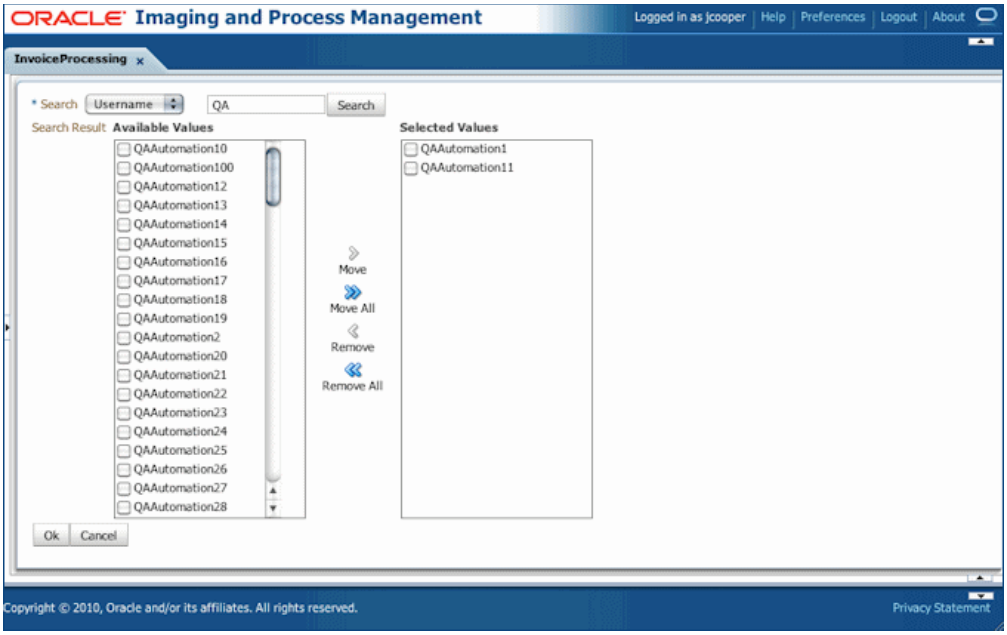
ENUMERATION_ID	ITEM_ID	DISPLAY_LABEL	ATTRIBUTE_KEY	LIST_ORDER
1	1	North	North	1
1	2	South	South	2
1	3	East	East	3
1	4	West	West	4
2	5	No Supplier	No Supplier	1
2	6	No Supplier Site	No Supplier Site	2
3	7	Duplicate Invoice	Duplicate Invoice	1
3	8	Invalid Invoice Number	Invalid Invoice Number	2
3	9	No 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.2.4 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.

Note: The Filter and Search Attribute settings use the BPEL Worklist views configuration. To change these settings, use the BPEL Workflow application.



A.2.4.1 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.

Table A–31 (Cont.) Identity Picker Parameters in AXF_SOLUTION_PARAMETERS Table

Parameter Key	Description
IDENTITY_FILTER	Define how the identity picker searches, where: ▪ USER: The picker searches for user information defined in BPEL. ▪ GROUP: The picker searches for group information defined in BPEL. **Note:** 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.
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 Section A.3.6.2. If the value has an XPATH: prefix, then the value comes from the AXF_XPATH_ATTRIBUTES Table and it is the XPATH to update the value in the task payload.

A.2.4.2 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	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.3 AXF Commands For the Imaging Solution

AXF commands include:

- Section A.3.1, "Open Task Command"
- Section A.3.2, "Autotask Command"
- Section A.3.3, "Release Task Command"
- Section A.3.4, "Complete Task Command"
- Section A.3.5, "Redirect Command"
- Section A.3.6, "Update Task Command"
- Section A.3.7, "Update Task From Procedure Command"
- Section A.3.8, "Terminate Conversation Command"
- Section A.3.9, "Validate Task Command"

Note: You can also deploy custom commands and chained commands to execute through AXF. See Section 5.4.5, "Deploying Custom Commands" and Section 5.4.6, "Configuring Chained Commands and Web Tools."

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.

A.3.1.1 Open Task Command Parameters

Table A–33 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

Table A–33 Parameters for OpenTask Command

Parameter Key	Description
TASK_VIEW_URL	This task flow is returned in the response command upon executing this command. 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 *taskflow:* is the protocol instead of *http*. ■ taskflow://WEB-INF/taskflows/axf-tasklist-tfd.xml#axf-tasklist-tfd (displays the Task List) ■ taskflow://WEB-INF/taskflows/axf-taskviewer-tfd.xml#axf-taskviewer-tfd (displays the Task Viewer) ■ taskflow://WEB-INF/taskflows/axf-identity-picker-tfd.xml#axf-identity-picker-tfd (displays the Identity Picker) ■ taskflow://WEB-INF/taskflows/axf-enumeration-picker-tfd.xml#axf-enumeration-picker-tfd (displays the Enumeration Picker) ■ taskflow://WEB-INF/taskflows/axf-comments-tfd.xml#axf-comments-tfd (displays Comments)

A.3.1.2 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–34 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 Section 5.4.2.

A.3.2.1 Autotask Command Parameters

Use the parameters in the AXF_SOLUTION_PARAMETERS Table to configure Autotask commands.

Table A–35 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.

A.3.2.2 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–36 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_ TASKS	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.

A.3.3.1 Release Task Command Parameters

Table A–37 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

Table A–37 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.

A.3.3.2 Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–38 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.

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.

A.3.4.1 Complete Task Command Parameters

Table A–39 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

Table A–39 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.

A.3.4.2 Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–40 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
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–41 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

A.3.5.1 Redirect Command Parameters

Table A–41 RedirectCommand Parameters

Parameter Key	Description
REDIRECT_URL	This URL is returned in the response command upon executing this command. It is either: ▪ a task flow String corresponding to a task flow ID which loads one or more pages on the task flow. ▪ a standard URL string that redirects to the specified URL.
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 Web site and all request parameters are appended in the URL.

A.3.5.2 Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–42 Example Redirect Command in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
StartInvoiceProcessing	oracle.imaging.axf.commands.system.RedirectCommand	EXTERNAL	FALSE
StartInvoiceProcessing	oracle.imaging.axf.commands.system.RedirectCommand	REDIRECT_URL	taskflow://WEB-INF/taskflows/axf-tasklist-tfd.xml#axf-tasklist-tfd

A.3.6 Update Task Command

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 Section A.3.6.3.)

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 in Section A.3.6.2. 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.

A.3.6.1 Update Task Command Parameters

Table A–43 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.

A.3.6.2 System Attributes

System Attributes
ACQUIREDBY
APPROVERS
ASSIGNEDDATE
ASSIGNEDGROUP //Cannot be updated
ASSIGNEDUSER //Cannot be updated
CREATEDATE
CREATOR
DATEATTRIBUTE1-DATEATTRIBUTE5
EXPIREDDATE
ENDDATE
FORMATTRIBUTE1-FORMATTRIBUTE5
FROMUSER
NUMBERATTRIBUTE1-NUMBERATTRIBUTE5
OUTCOME
OWNERGROUP
OWNERUSER
PRIORITY
STATE
TASKID
TASKNUMBER //Cannot be updated
TITLE
TASKDEFINITIONNAME
TEXTATTRIBUTE1-TEXTATTRIBUTE10
UPDATEDBY
URLATTRIBUTE1 - URLATTRIBUTE5

A.3.6.3 Example Implementation

This example shows two attributes updated by the same comand_namespace, UpdateHelloBPEL. For more information about HelloBPEL, see "Verifying the AXF Installation with HelloBpel" in *Oracle Fusion Middleware Installation Guide for Oracle Enterprise Content Management Suite*.

Fields not shown: SOLUTION_NAMESPACE=HelloBPEL

Table A–44 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_String1
UpdateHelloBPEL	oracle.imaging.axf.commands.bpel. UpdateTaskCommand	String2	XPATH:HelloBPEL_String2

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. For an example implementation, see Section 5.4.3.

A.3.7.1 Update Task From Procedure Command Parameters

Table A–45 Parameters for UpdateTaskFromProcedure Command

Parameter Key	Description
XPATH_USERS	Specifies an XPATH variable contained in the AXF_XPATH_ATTRIBUTES Table that refers to the XPATH where the list of returned data is stored.
CMD_EMPTY_LIST	Specifies the command to execute if no results return from the pl/sql function.
CMD_NON_EMPTY_LIST	Specifies the command to execute if results return 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.

A.3.7.2 Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–46 Example UpdateTaskFromProcedureCommand Parameters in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	XPATH_USERS	XPATH:InvoiceProcessing_InvoiceApprovalAssignment
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	CMD_NON_EMPTY_LIST	InvoiceApprovalEdit
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	CMD_EMPTY_LIST	CompleteInvoice
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	JNDI_DS	jdbc/EBSDS
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	PLSQL_PROC	AXFRETRIEVEUSERLIST

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–47 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

A.3.9.1 Validate Task Command Parameters

Table A–47 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 *XPATH:* and reference a value from the AXF_XPATH_ATTRIBUTES Table.
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.

A.3.9.2 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 Section 5.4.4.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–48 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.

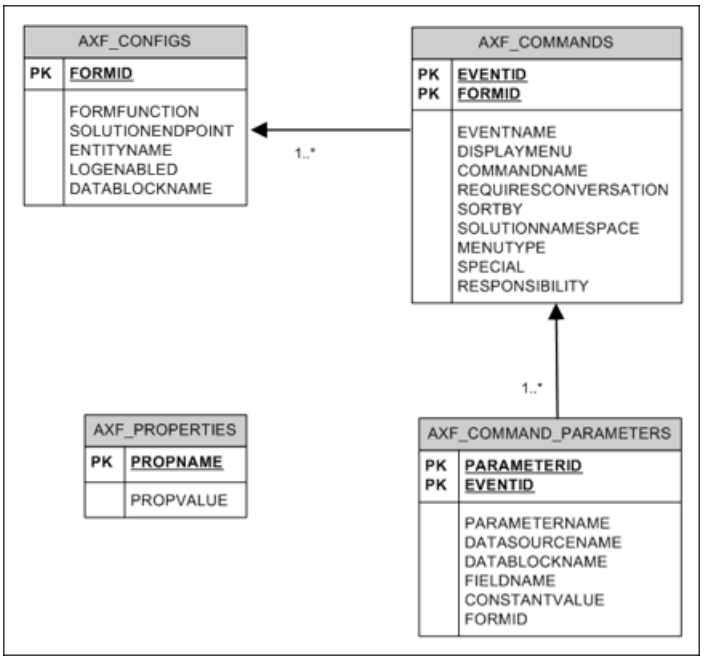
A.4 Oracle E-Business Suite Tables For the Imaging Solution

Configuring AXF for Oracle E-Business Suite requires configuring AXF-related tables in Oracle E-Business Suite. This section covers the following topics:

- Section A.4.1, "About the Oracle E-Business Suite AXF Tables For the Imaging Solution"
- Section A.4.2, "AXF_CONFIGS Table (Oracle E-Business Suite)"
- Section A.4.3, "AXF_COMMANDS Table (Oracle E-Business Suite)"
- Section A.4.4, "AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite)"
- Section A.4.5, "AXF_PROPERTIES Table (Oracle E-Business Suite)"

A.4.1 About the Oracle E-Business Suite AXF Tables For the Imaging Solution

The following diagram shows how the tables used by the Oracle E-Business Suite system in AXF solutions are related.



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 screens related to the form. (Set ZOOM and SPECIAL commands in the AXF_COMMANDS Table.)

A.4.2.1 Column Description

Table A–49 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.

Table A–49 (Cont.) Column Description for AXF_CONFIGS Table

Column Name	Description
SOLUTIONENDPOINT	Specifies a URL to AXF. This value should start as `https://` if SecureMode is on. See Section 2.2.2, "Securing Communications Through SSL."
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: ■ 1/TRUE/YES ■ 0/FALSE/NO
DATABLOCKNAME	Specify the data block on the form to enable. Note that you can also specify `AXF_DEFAULT` 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.

A.4.2.2 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 Section 5.4.8.

Fields not shown: LOGENABLED=YES

Table A–50 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).

A.4.3.1 Column Description

Table A–51 Column Description for AXF_COMMANDS Table

Column Name	Description
FORMID	Links to the AXF_CONFIGS Table (Oracle E-Business Suite).
EVENTID	Primary key of the table.
EVENTNAME	Name of the Event command to invoke (for example, ZOOM, POST-INSERT).

Table A–51 (Cont.) Column Description for AXF_COMMANDS Table

Column Name	Description
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.
SOLUTIONNAMESPACE	Name of the solution.
MENUTYPE	Specify the menu type to display to users in Oracle E-Business Suite. You can choose: ■ ZOOM: Displays a Zoom menu in the toolbar. ■ ZOOMANDSPECIAL: Displays both a Zoom menu and a Special menu. (Enter a special key in the SPECIAL column.) ■ SPECIAL: Displays a Special menu on the toolbar. (Enter a special key in the Special column.)
SPECIAL	Create new menu entries by entering a unique number for the Special type menu, where: ■ SPECIAL1-15 creates entries in the Tools menu. ■ SPECIAL16-30 creates entries in the Reports menu. ■ SPECIAL31-45 creates entries in the Actions menu. (Consult the Oracle E-Business Suite Documentation for further information.)
RESPONSIBILITY	Reserved for future use.

A.4.3.2 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 screens.

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–52 Example AXF_COMMANDS Table

EVENT ID	FORM ID	EVENTNAME	DISPLAYMENU	COMMANDNAMESPACE	REQUIRESCONVERSATION	SORT BY	MENU TYPE
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.

A.4.4.1 Column Description

Table A–53 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 AXF_COMMANDS Table (Oracle E-Business Suite).
PARAMETERNAME	The name of the parameter to pass.
DATASOURCENAME	Data Source for the parameter value. You can specify *Data* or *Constant*.
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.

A.4.4.2 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–54 Example AXF_COMMAND_PARAMETERS Table

PARAMETERID	EVENTID	PARAMETERNAME	DATASOURCE NAME	DATABLOCKNAME	FIELDNAME	CONSTANT VALUE
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)
20	15	InvoiceTransactionID	DATA	INV_SUM_FOLDER	INVOICE_ID	(null)
22	16	InvoiceTransactionID	DATA	INV_SUM_FOLDER	INVOICE_ID	(null)

A.4.5 AXF_PROPERTIES Table (Oracle E-Business Suite)

Use the AXF_PROPERTIES table to define properties for AXF integration with Oracle E-Business Suite.

A.4.5.1 Column Description

Table A–55 Column Description for AXF_PROPERTIES Table

Column	Description
PROPNAME	Specifies properties to use. Properties include: ■ SecureMode: To enable SSL, set this property to ON, and set values for AXFWalletPath and AXFWalletKey properties. ■ AXFWalletPath: Certificate location (path). ■ AXFWalletKey: Specify the key for the AXF wallet password, to be retrieved from the Oracle E-Business Suite vault. ■ AXF_VERSION: Specify `1` for AXF 10g, or `2` for AXF 11g. ■ AXF_SOAP_POLICY: Specify the name of the SOAP policy to use. The currently supported policy is `USER_NAME_TOKEN`. ■ AXF_SOAP_SECURITY: Specify `TRUE` to enable SOAP security, as described in Section 2.2.1. ■ AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in Section 2.2.1. ■ AXF_PAPERCLIP: Set to `TRUE` to enable the paperclip option, or `FALSE` (default) to disable it. Also see Section 5.4.8.
PROPVALUE	Specifies the property's value.

A.4.5.2 Example Implementation

This example table shows the default properties values.

Table A–56 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 Imaging Solution

Configuring the adapter for Oracle PeopleSoft requires configuring AXF-related tables in Oracle PeopleSoft. For more information, see Section 3.4.

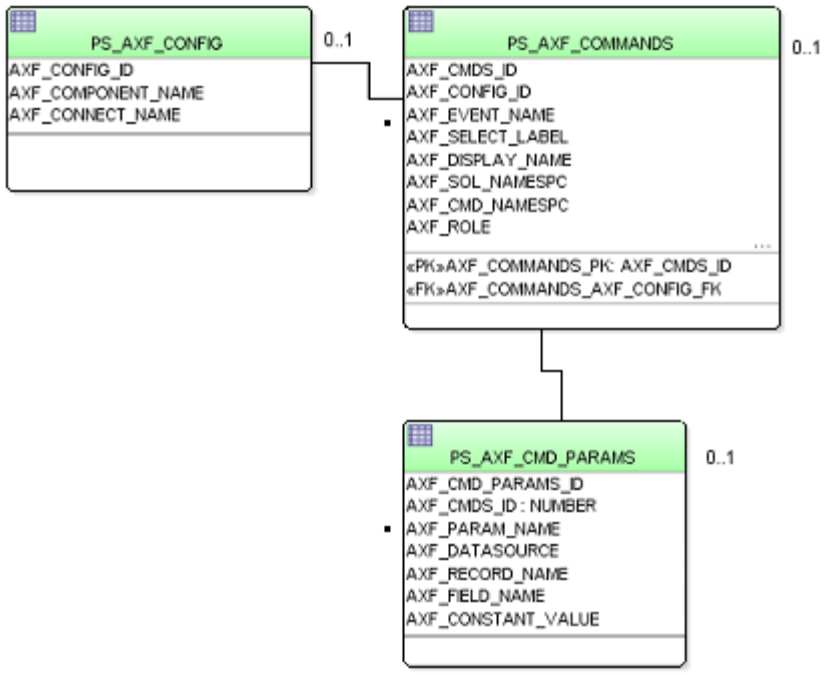
This section covers the following topics:

- Section A.5.1, "About the Oracle PeopleSoft AXF Tables For the Imaging Solution"
- Section A.5.2, "PS_AXF_CONFIG Table"

- Section A.5.3, "PS_AXF_COMMANDS Table"
- Section A.5.4, "PS_AXF_COMMAND_PARAMS Table"

A.5.1 About the Oracle PeopleSoft AXF Tables For the Imaging Solution

The following diagram shows how the tables used by the Oracle PeopleSoft system in AXF solutions are related.



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.

A.5.2.1 Column Description

Table A–57 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–57 (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. Available values include: ■ 10g ■ 11g

A.5.2.2 Example Implementation

This example defines that the VCHR_QUICK_PNL component is AXF-enabled.

Table A–58 Example PS_AXF_CONFIG Table

AXF_CONFIG_ID	AXF_COMPONENT_NAME	AXF_CONNECT_NAME	AXF_VERSION
1	VCHR_QUICK_PNL	AXF_EXECUTE	11g

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.

A.5.3.1 Column Description

Table A–59 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 PS_AXF_CONFIG Table, 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. Available options include: ■ AXF_BUTTON_1, …, AXF_BUTTON_5 ■ AXF_LINK_1, ..., AXF_LINK5 ■ AXF_COMBO_1, ..., AXF_COMBO_5 ■ AXF_PRE_SAVE_SBP ■ AXF_POST_SAVE_SBP
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 screen.
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. It is a comma-delimited list with each role enclosed in single quotes (for example, 'Role1','Role2','Role3').

Table A–59 (Cont.) Column Description for PS_AXF_COMMANDS Table

Column Name	Description
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.

A.5.3.2 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 Oracle I/PM 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–60 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.

A.5.4.1 Column Description

Table A–61 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 PS_AXF_COMMANDS Table, which associates the unique parameter with a specific command.
AXF_PARAM_NAME	Defines the parameter name.

Table A–61 (Cont.) Column Description for AXF_COMMAND_PARAMETERS Table

Column	Description
AXF_DATASOURCE	Specifies where the parameter value is retrieved. ■ DATA: Retrieves the value in Oracle PeopleSoft defined by the AXF_RECORD_NAME and AXF_FIELD_NAME fields. ■ CONSTANT: Uses the value defined in the AXF_CONSTANT_VALUE field.
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.

A.5.4.2 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–62 Example PS_AXF_COMMAND_PARAMS Table

AXF_CMDS_PARAMS_ID	AXF_CMDS_ID	AXF_PARAM_NAME	AXF_DATASOURCE	AXF_RECORD_NAME	AXF_FIELD_NAME	AXF_CONSTANT_VALUE
1	2	SearchName	CONSTANT	(null)	(null)	SearchByInvoiceID
2	2	INVOICENUMBER	DATA	VCHR_HDR_QV	INVOICE_ID	(null)
3	3	InvoiceTransactionID	DATA	VCHR_HDR_QV	VOUCHER_ID	(null)

B

Managed Attachments Solution Tables

This appendix describes the AXF and business application configuration tables used for the Managed Attachments solution:

- Section 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.

- Section B.2, "Oracle E-Business Suite AXF Tables For the Managed Attachments Solution"

  Oracle E-Business Suite tables define how the Managed Attachments screen is activated through the Zoom menu on selected Oracle E-Business Suite forms.

- Section B.3, "Oracle PeopleSoft Tables For the Managed Attachments Solution"

  Oracle PeopleSoft tables define how the Managed Attachments screen is activated through a button, link, or menu on selected Oracle PeopleSoft pages.

- Section B.4, "Content Server Tables For the Managed Attachments Solution"

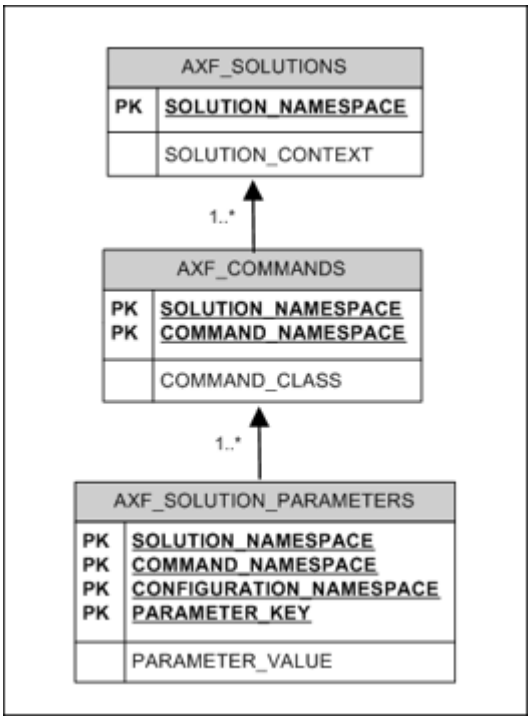
  Content Server tables define how Content Server documents are mapped to Oracle E-Business Suite or Oracle PeopleSoft business objects and how users are temporarily granted access to documents associated with a particular business object.

These tables are automatically populated during installation (Oracle E-Business Suite) or through Integration Broker (Oracle PeopleSoft). This appendix describes how to configure the tables if changes are needed.

B.1 AXF Tables For the Managed Attachments Solution

> **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.

The diagram that follows displays the AXF configuration tables used for the Managed Attachments solution and their relationships.



AXF Table	Description
AXF_SOLUTIONS Table	Define AXF solutions and general parameters for infrastructure, services, and solutions.
AXF_COMMANDS Table	Define AXF commands within solutions.
AXF_SOLUTION_PARAMETERS Table	Define 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.

B.1.1.1 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.

B.1.1.2 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_Attachments	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

B.1.2 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.

B.1.2.1 Column Description

Table B–3 Column Description for AXF_COMMANDS Table

Column	Description
SOLUTION_NAMESPACE	The name of the solution, as defined in the AXF_SOLUTIONS Table.
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.

B.1.2.2 Example Implementation

This example shows the Oracle UCM Managed Attachments command defined for the Managed Attachments solution.

Table B–4 Example AXF_COMMANDS Table

SOLUTION_NAMESPACE	COMMAND_CLASS	COMMAND_NAMESPACE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_Managed_Attachments

B.1.3 AXF_SOLUTION_PARAMETERS Table

This table defines command parameters for the solution and AXF command.

B.1.3.1 Column Description

Table B–5 Column Description for AXF_SOLUTION_PARAMETERS Table

Column	Description
SOLUTION_NAMESPACE	Identifies the solution namespace, as defined in the AXF_SOLUTIONS Table.
COMMAND_NAMESPACE	Specifies the command name, as defined in the AXF_COMMANDS Table.

Table B–5 (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. Parameters include: ■ RIDC_CONNECTION_STR: Specifies the RIDC connection string used to execute the AF_GRANT_ACCESS Oracle UCM service. Includes the host name or IP address of the system on which Content Server is running, and the Oracle UCM server port that receives RIDC calls. (To find the value for the Oracle UCM server port, locate the IntradocServerPort config value in config.cfg.) ■ UCM_CONNECTION_STR: Specifies the base URL that executes the Oracle UCM 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. The `/idc/` portion of the URL should be changed to match your Oracle UCM installation's web root (`/ucm_web_root/`) Content Server profile (default profile is EBSProfile or PSFTProfile) GET_SEARCH_RESULTS_FORCELOGIN service ResultCount (default is 5) ResultTemplate (default template is EBS_LIST or PSFT_LIST). DATABASE.METADATA.AFLIST search engine ■ UCM_ADMIN_USER: Specifies the administrative Oracle UCM user that executes the AF_GRANT_ACCESS service for the user logged into the business application.
PARAMETER_VALUE	Specifies the value of the parameter key.

B.1.3.2 Example Implementations

These examples define the UCM_Managed_Attachments command for the UCM_Managed_Attachments solution. Table B–6 provides an Oracle E-Business Suite example and Table B–7 provides an Oracle PeopleSoft example.

- The first row specifies the RIDC connection string that executes the AF_GRANT_ACCESS Oracle UCM service.
- The second row specifies the Managed Attachments URL that invokes the Oracle UCM attachments framework search.
- The third row specifies the Oracle UCM administrative user who runs the AF_GRANT_ACCESS service; this user name is dynamically retrieved.

Fields not shown: SOLUTION_NAMESPACE=UCM_Managed_Attachments

Table B–6 Example AXF_SOLUTION_PARAMETERS Table for Oracle E-Business Suite Managed Attachments Solution

COMMAND_ NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_ Attachments	oracle.imaging.axf.commands.ucm. AfGrantAccessCommand	RIDC_CONNECTION_STR	idc://*UCM host name or IP address:UCM server port*
UCM_Managed_ Attachments	oracle.imaging.axf.commands.ucm. AfGrantAccessCommand	UCM_CONNECTION_STR	http://*UCM host name or IP address:WebServerPort/ucm web root*/idcplg/_ p/min/af/trigger-EBSProfile? IdcService=GET_SEARCH_RESULTS_ FORCELOGIN&ResultCount=20& ResultTemplate=EBS_LIST& SearchEngineName= DATABASE.METADATA.AFLIST
UCM_Managed_ Attachments	oracle.imaging.axf.commands.ucm. AfGrantAccessCommand	UCM_ADMIN_USER	*UCM admin user*

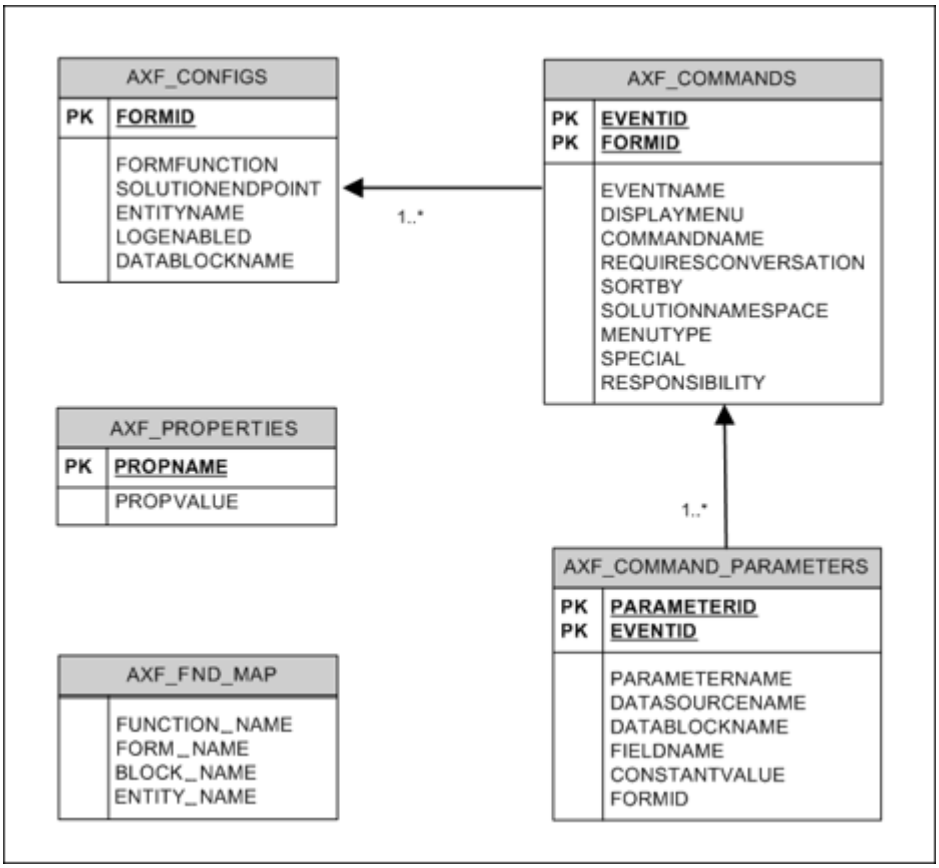
Table B–7 Example AXF_SOLUTION_PARAMETERS Table for Oracle PeopleSoft Managed Attachments Solution

COMMAND_ NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_ Attachments	oracle.imaging.axf.commands.ucm. AfGrantAccessCommand	RIDC_CONNECTION_STR	idc://*UCM host name or IP address:UCM server port*
UCM_Managed_ Attachments	oracle.imaging.axf.commands.ucm. AfGrantAccessCommand	UCM_CONNECTION_STR	http://*UCM host name or IP address:WebServerPort/ucm web root*/idcplg/_ p/min/af/trigger-PSFTProfile? IdcService=GET_SEARCH_RESULTS_ FORCELOGIN&ResultCount=20& ResultTemplate=PSFT_LIST& SearchEngineName= DATABASE.METADATA.AFLIST
UCM_Managed_ Attachments	oracle.imaging.axf.commands.ucm. AfGrantAccessCommand	UCM_ADMIN_USER	*UCM admin user*

B.2 Oracle E-Business Suite AXF Tables For the Managed Attachments Solution

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 configuration tables used for the Managed Attachments solution and their relationships.



Oracle E-Business Suite Table	Description
AXF_CONFIGS Table (Oracle E-Business Suite)	Enables the AXF solution on various Oracle E-Business Suite Forms.
AXF_COMMANDS Table (Oracle E-Business Suite)	Describes the actions to take based on user activity.
AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite)	Defines the information sent for the AfGrantAccess command.
AXF_PROPERTIES Table (Oracle E-Business Suite)	Defines properties for AXF integration for Oracle E-Business Suite.
AXF_FND_MAP Table (Oracle E-Business Suite)	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.

B.2.1 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.

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 Oracle UCM, this table invokes the AfGrantAccess command.

B.2.1.1 Column Description

Table B–8 Column Description for AXF_CONFIGS Table

Column Name	Description	Data Type
FORMID	Specifies the primary key of the table.	Number
FORMFUNCTION	Distinguishes each Oracle E-Business Suite Form based on the form's functionality.	Varchar2 (100 byte)
SOLUTIONENDPOINT	Specifies a URL to AXF. This value should start as `https://` if SecureMode is on. See Section 2.2.2, "Securing Communications Through SSL."	Varchar2 (1000 byte)
ENTITYNAME	Used by the attachment functionality as a unique name, which links attachments to the correct Forms.	Varchar2 (100 byte)
LOGENABLED	Enables or disables the log for the specified form. See Section 2.4, "Configuring Oracle E-Business Suite Logging." Specify one of the following: ■ 1/TRUE/YES ■ 0/FALSE/NO	Varchar2 (10 byte)
DATABLOCKNAME	Specify the data block on the form to enable. Note that you can also specify `AXF_DEFAULT` 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.	Varchar2 (100 byte)

B.2.1.2 Example Implementation

This example defines the AfGrantAccess command in the AXF_CONFIGS table for the Invoice Entry form.

Fields not shown: ENTITYNAME=(null), LOGENABLED=YES, and DATABLOCKNAME=(null)

Table B–9 Example AXF_CONFIGS Table

FORMID	FORMFUNCTION	SOLUTIONENDPOINT
1	AXF_MANAGED_ATTACHMENTS	`https://`*`ApplicationServerName:Port`*`/axf-ws/AxfSolutionMediatorService`

B.2.2 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).

B.2.2.1 Column Description

Table B–10 Column Description for AXF_COMMANDS Table

Column Name	Description	Data Type	Nullable
FORMID	Links to the AXF_CONFIGS Table (Oracle E-Business Suite).	Number	No
EVENTID	Primary key of the table.	Number	Yes
EVENTNAME	Name of the Event command to invoke (ZOOM for this adapter).	Varchar2(100 byte)	Yes
DISPLAYMENU	Displays text of the menu for the command.	Varchar2(100 byte)	Yes
COMMANDNAMESPACE	Request command to pass to the back-end when a user selects the menu.	Varchar2(100 byte)	Yes
REQUIRESCONVERSATION	Indicates if the command requires a valid conversation or not. For this adapter, this value must be NO.	Varchar2(10 byte)	Yes
SORTBY	Order in which the menu is displayed.	Number	Yes
SOLUTIONNAMESPACE	Name of the solution.	Varchar2(100 byte)	Yes
MENUTYPE	Specify the menu type to display to users in Oracle E-Business Suite. ZOOM displays a Zoom menu in the toolbar.	Varchar2(25 byte)	Yes
SPECIAL	Create new menu entries by entering a unique number for the Special type menu. (Not applicable for this adapter.)	Varchar2(10 byte)	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.)	Varchar2(100 byte)	Yes

B.2.2.2 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–11 Example AXF_COMMANDS Table for Invoice Entry Form

EVENT ID	FORM ID	EVENT NAME	DISPLAYMENU	COMMAND NAMESPACE	REQUIRESCONVERSATION	SORT BY	SOLUTION NAMESPACE	MENU TYPE
8	1	ZOOM	Managed Attachments	UCM_Managed_Attachment	NO	3	UCM_Managed_Attachments	ZOOM

B.2.3 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.

B.2.3.1 Column Description

Table B–12 Column Description for AXF_COMMAND_PARAMETERS Table

Column	Description
PARAMETERID	Defines a unique ID for the parameter.

Table B–12 (Cont.) Column Description for AXF_COMMAND_PARAMETERS Table

Column	Description
EVENTID	Defines a unique ID for the event. Comes from the AXF_COMMANDS Table (Oracle E-Business Suite).
PARAMETERNAME	The name of the parameter to pass. For this adapter, this value must be set to: ▪ Application: Value assigned to dAFApplication, a required Oracle UCM parameter key. This name/value pair is passed as a configuration parameter to the Oracle UCM AF_GRANT_ACCESS service and attachments framework search.
DATASOURCENAME	Data Source for the parameter value. You can specify *Data* or *Constant*.
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.

B.2.3.2 Example Implementation

The AXF_COMMAND_PARAMETERS example that follows displays fields configured for the AfGrantAccess command for the Invoice Entry form.

Table B–13 Example AXF_COMMAND_PARAMETERS Table

PARAMETER ID	EVENT ID	PARAMETERNAME	DATASOURCE NAME	DATABLOCKNAME	FIELDNAME	CONSTANTVALUE
1	8	application	CONSTANT	(null)	(null)	EBS_instanceA

B.2.4 AXF_FND_MAP Table (Oracle E-Business Suite)

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 Oracle UCM AF_GRANT_ACCESS service and attachments framework search.

B.2.4.1 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.

B.2.4.2 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_FOLDER	AP_INVOICES

B.2.5 AXF_PROPERTIES Table (Oracle E-Business Suite)

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 Section 6.7.13

B.2.5.1 Column Description

Table B–16 Column Description for AXF_PROPERTIES Table (Oracle E-Business Suite)

Column	Description
PROPNAME	Specifies properties to use. Properties include: ■ SecureMode: To enable SSL, set this property to ON, and set values for AXFWalletPath and AXFWalletKey properties. ■ AXFWalletPath: Certificate location (path). ■ AXFWalletKey: Specify the key for the AXF wallet password, to be retrieved from the Oracle E-Business Suite vault. ■ AXF_VERSION: Specify `1` for AXF 10g, or `2` for AXF 11g. ■ AXF_SOAP_POLICY: Specify the name of the SOAP policy to use. The currently supported policy is `USER_NAME_TOKEN`. ■ AXF_SOAP_SECURITY: Specify `TRUE` to enable SOAP security, as described in Section 2.2.1. ■ AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in Section 2.2.1. ■ AXF_PAPERCLIP: Set to `TRUE` to enable the Oracle E-Business Suite native attachments paperclip option, or `FALSE` (default) to disable it. See Section 6.7.13.
PROPVALUE	Specifies the property's value.

B.2.5.2 Example Implementation

This example table shows the default properties values.

Table B–17 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

Table B–17 (Cont.) Example AXF_PROPERTIES Table

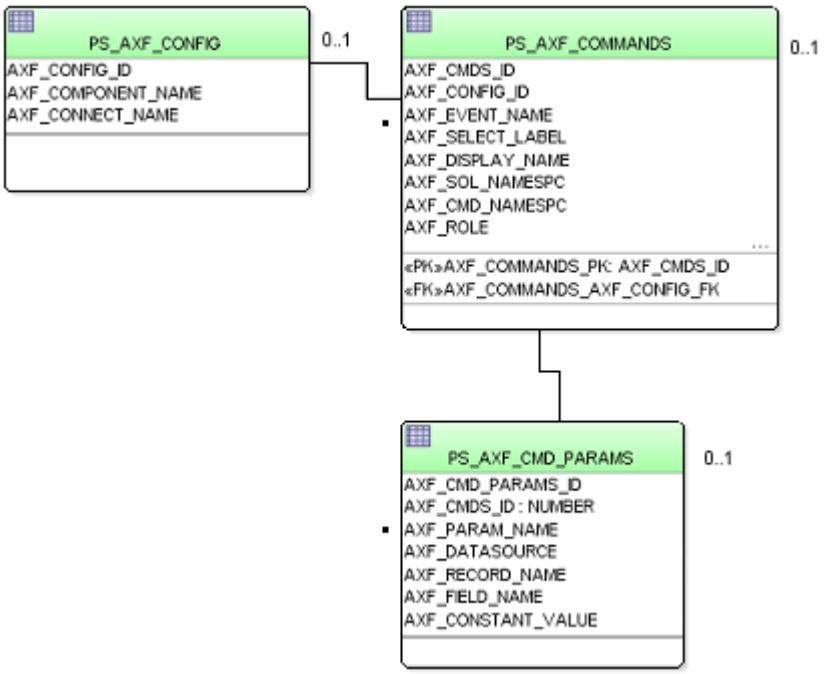
PROPNAME	PROPVALUE
AXF_PAPERCLIP	FALSE

B.3 Oracle PeopleSoft Tables For the Managed Attachments Solution

Configuring AXF for Oracle PeopleSoft requires configuring these AXF-related tables in Oracle PeopleSoft:

- Section B.3.1, "PS_AXF_CONFIG Table"
- Section B.3.2, "PS_AXF_COMMANDS Table"
- Section B.3.3, "PS_AXF_CMD_PARAMS Table"

The following diagram shows how the tables used by the Oracle PeopleSoft system in AXF solutions are related.



Note: All AXF table fields require non-null values. You can include a space for fields that do not apply.

B.3.1 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.

B.3.1.1 Column Description

Table B–18 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.
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 `11g`.

B.3.1.2 Example Implementation

This example defines that the WM_WO (work order) component is AXF-enabled.

Table B–19 Example PS_AXF_CONFIG Table

AXF_CONFIG_ID	AXF_COMPONENT_NAME	AXF_CONNECT_NAME	AXF_VERSION
1	WM_WO	AXF_EXECUTE	11g

B.3.2 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.

B.3.2.1 Column Description

Table B–20 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 PS_AXF_CONFIG Table, 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: ▪ AXF_BUTTON_1, …, AXF_BUTTON_5 ▪ AXF_LINK_1, ..., AXF_LINK5 ▪ AXF_COMBO_1, ..., AXF_COMBO_5 ▪ AXF_PRE_SAVE_SBP ▪ AXF_POST_SAVE_SBP
AXF_SELECT_LABEL	Represents the label that for display if using a drop-down component (for example, AXF_COMBO_1).

Table B–20 (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 screen.
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.

B.3.2.2 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–21 Example PS_AXF_COMMANDS Table

AXF_ CMDS_ ID	AXF_ CONFIG_ ID	AXF_ EVENT_ NAME	AXF_ SELECT_ LABEL	AXF_ DISPLAY_ NAME	AXF_SOL_ NAMESPC	AXF_CMD_ NAMESPC	AXF_PSFT_ ROLE	AXF_ SORT_ ORDER	AXF_ REQ_ CONV
2	1	AXF_LINK_1	(null)	Managed Attachments	UCM_ Managed_ Attachments	UCM_ Managed_ Attachments	'Employee'	1	N

B.3.3 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,

B.3.3.1 Column Description

Table B–22 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 PS_AXF_COMMANDS Table, which associates the unique parameter with a specific command.

Table B–22 (Cont.) Column Description for PS_AXF_CMD_PARAMS Table

Column	Description
AXF_PARAM_NAME	Defines the parameter name, where: ■ Application: Specifies the business application, as defined in AFObjects Table. ■ businessObjectType: Specifies the business application's object type, as defined in AFObjects Table. ■ businessObjectKey1...5: Represents the primary key name for the document. ■ businessObjectValue1...5: Represents the primary key value for the document. ■ labelValue1...5: Labels displayed on Managed Attachments user interface for displaying key values for the attachments integration.
AXF_DATASOURCE	Specifies where the parameter value is retrieved. ■ DATA: Retrieves the value in Oracle PeopleSoft defined by the AXF_RECORD_NAME and AXF_FIELD_NAME fields. ■ CONSTANT: Uses the value defined in the AXF_CONSTANT_VALUE field.
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.

B.3.3.2 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 on the Managed Attachments screen:

[Business Unit], [US001], [Work Order], [123456]

Table B–23 Example PS_AXF_CMD_PARAMS Table

AXF_CMD_PARAM_ID	AXF_CMD_ID	AXF_PARAM_NAME	AXF_DATASOURCE	AXF_RECORD_NAME	AXF_FIELD_NAME	AXF_CONSTANT_VALUE
3	2	application	CONSTANT			PSFT_INSTANCE_A
4	2	businessObjectType	CONSTANT			WM_WO_HDR
5	2	businessObjectKey1	CONSTANT			BUSINESS_UNIT
6	2	businessObjectValue1	DATA	WM_WO_HDR	BUSINESS_UNIT	
7	2	businessObjectKey2	CONSTANT			WO_ID
8	2	businessObjectValue2	DATA	WM_WO_HDR	WO_ID	
9	2	labelValue1	CONSTANT			Business Unit
10	2	labelValue2	DATA	WM_WO_HDR	BUSINESS_UNIT	
11	2	labelValue3	CONSTANT			Work Order
12	2	labelValue4	DATA	WM_WO_HDR	WO_ID	

B.4 Content Server Tables For the Managed Attachments Solution

The adapter utilizes the following additional database tables:

- Section B.4.1, "AFGrants Table"
- Section B.4.2, "AFObjects Table"
- Section B.4.3, "AFRelationshipAttributes Table"
- Section B.4.4, "AFKeys Table"

These tables are automatically populated at run-time. AFGrants is initially populated when the user accesses Oracle UCM from the business application and the AF_GRANT_ACCESS service is run. AFObjects is populated when the user checks in a document to Oracle UCM from the Managed Attachments screen.

B.4.1 AFGrants Table

This table stores the grants given to users, allowing them to temporarily access documents associated with a particular business object.

B.4.1.1 Column Description

Table B–24 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 optional. If not specified, the access level specified for the AppAdapterGrantPrivilege configuration variable is used, as described in Section 6.3.3, "Configuring the Preferences.hda File."
dExpirationDate	Stores the date and time at which to expire this grant.
dMaxExpiration	Stores the time at which the maximum access period (in hours) expires.

B.4.2 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.

B.4.2.1 Column Description

Table B–25 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 Section 6.7.9, "Configuring Revision-Specific Mode."

B.4.3 AFRelationshipAttributes Table

This table stores relationship attributes associated with an attachment. For more information, see Section 6.7.8, "Configuring Relationship Attributes." Depending on the configuration of relationship attributes, a document can have zero or more relationship attributes.

B.4.3.1 Column Description

Table B–26 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.4.4 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.

B.4.4.1 Column Description

Table B–27 Column Description for AFKeys Table

Columns	Description
dAFApplication	Stores the business application's instance name.
dAFBusinessObjectType	Stores the business application's object type.

Table B–27 (Cont.) Column Description for AFKeys Table

Columns	Description
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.

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