Oracle® Fusion Middleware

Administering the Application Adapters for Oracle WebCenter

12*c* (12.2.1.1)

E68324-01

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Documentation for administrators that describes how to configure Imaging and Managed Attachments solutions using the Oracle WebCenter application adapters for Oracle E-Business Suite, Oracle PeopleSoft, and other business applications.

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Oracle Fusion Middleware Administering the Application Adapters for Oracle WebCenter , 12c (12.2.1.1)

E68324-01

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Preface

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

Audience

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

Documentation Accessibility

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Related Documents

For end-user adapter information, see *Using the Application Adapters for Oracle WebCenter*.

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 page, or text that you enter.

What's New in This Guide

This chapter describes the new and changed features of Oracle WebCenter Application Adapters.

This chapter contains the following topics:

- New and Changed Features in 12c (12.2.1.1)

- New and Changed Features in 11g Release 1 (11.1.1.9)

New and Changed Features in 12c (12.2.1.1)

Oracle WebCenter Application Adapter 12*c* (12.2.1.1) includes the following new features:

- Setting up communication with 12c Content Server. See Configuring Communication With a 12c Server.

- Configuring elements for Managed Attachments. See Configuring 12c Elements for Managed Attachments.

- Configuring CS_WEBKEY parameter. See AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite Forms), OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF), and PS_AXF_CMD_PARAMS Table.

- Changing the script file location. See Enabling Managed Attachments for Oracle E-Business Suite Forms Applications, Populating the OAF AXF Database Tables With Sample Key Values, Importing the Oracle PeopleSoft Project.

- Customizing Managed Attachments settings based on the E-Business Suite responsibilities. See Customizing Settings Based on Users' Assigned Responsibility ID.

Note: Application Extension Framework (AXF) and Oracle WebCenter Imaging (IPM) are not available in Oracle WebCenter Application Adapter 12*c* (12.2.1.1) Release. You must use the Oracle WebCenter Content for the Managed Attachment Solution to work in the 12*c* environment.

Some topics might be specific for 11*g* Release. The topic headings indicate the release that the topic applies to.

New and Changed Features in 11g Release 1 (11.1.1.9)

Oracle WebCenter Application Adapter 11g Release 1 (11.1.1.9) does not contain any new and changed features for this features document.

1

Introduction to Application Adapter Solutions

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

Note: Application Extension Framework (AXF) and Oracle WebCenter Imaging (IPM) are not available in Oracle WebCenter Application Adapter 12*c* (12.2.1.1) Release. You must use Oracle WebCenter Content for the Managed Attachment Solution to work in the 12*c* environment.

Some topics might be specific for 11*g* Release. The topic headings indicate the release that the topic applies to.

This chapter covers the following topics:

- About Application Extension Framework (AXF)

- About the BPEL Imaging Solution

- About the Managed Attachments Solution

- About Adapter Components

- About Adapter Security and Authentication

- Adapter System Requirements

- Adapter Configuration Roadmap

1.1 About Application Extension Framework (AXF) (*11g Release*)

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

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

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

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

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

1.2 About the BPEL Imaging Solution (*11g Release*)

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

This section covers the following topics:

- Business User View of the BPEL Imaging Solution

- About AXF Commands Used by the BPEL Imaging Solution

- About BPEL Imaging User Interface Components

1.2.1 Business User View of the BPEL Imaging Solution

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

- View attached images and metadata values. Use Imaging's tools for viewing, annotating, and redacting images, as permissions allow.

- Key entries in the business application while viewing images and related values in the Imaging viewer.

- Perform actions related to the workflow task, such as routing, canceling, updating, and completing tasks.

- Scan or upload supporting documents for a selected business application record.

- View supporting images for a business application record without leaving the business application.

1.2.1.1 Imaging Scenario 1: Processing Invoices

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

1. A workflow process automatically generates user tasks.

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

2. From the business application, the user launches the Imaging Solution, by clicking a button or link or selecting a command called **Process Invoices**.

3. The user selects a task from those listed for a selected profile. Once a task is selected (acquired), it is no longer available to other users.

4. In the Task Viewer, users view the task's invoice image, key entries in the business application based on the image, and perform related commands.

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

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

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

Note:

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

1.2.1.2 Imaging Scenario 2: Capturing Supporting Employee Documents

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

1. From the business application, a user retrieves a record such as an employee record.

2. The user launches the document imaging solution, by clicking a link or button or selecting a command called **Scan Employee Document**.

3. Oracle WebCenter Enterprise Capture launches and automatically initiates a scan (if a scanner is attached to the desktop) or enables the user to upload electronic images from desktop.

4. The user enters metadata (index) values in Oracle WebCenter Enterprise Capture to store with the images.

5. The user clicks **Release**, and the captured document images and their metadata are transmitted from Oracle WebCenter Enterprise Capture to Imaging.

1.2.1.3 Imaging Scenario 3: Viewing Supporting Employee Documents

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

1. From the business application, a user retrieves a record such as an employee record.

2. A user launches the document imaging solution, by clicking a button or link or selecting a command called **View Employee Documents**.

3. From the list of documents associated with the employee record and their metadata values, the user selects a document.

4. The document displays in the Imaging viewer, where the user can view its images, and with appropriate permissions, apply annotations or redactions.

1.2.2 About AXF Commands Used by the BPEL Imaging Solution

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

BPEL AXF Command	Description
Open Task	Displays the AXF Task Viewer web page and claims a human workflow task. See Open Task Command.
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 Autotask Command.
Release Task	Releases a human workflow task, and, if configured, executes additional actions. See Release Task Command.
Complete Task	Completes a human workflow task, and, if configured, updates BPEL payload attribute values and executes additional actions. See Complete Task Command.
Redirect	Redirects the current AXF web page to any URL or AXF web page specified in the configuration. See Redirect Command.
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 Update Task Command (BPEL).
Update Task From Procedure	Calls a stored procedure using a specified data source and updates values in the BPEL payload using XPATH. See Update Task From Procedure Command.
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 Validate Task Command.

> **Note:**
>
> You can also deploy custom commands and chained commands to execute through AXF. See Deploying Custom Commands and Configuring Chained Commands and User Interface Components.

1.2.3 About BPEL Imaging User Interface Components

The BPEL Imaging Solution provides the following user interface components. These are web interface components displayed to users and configured through the AXF tables. Once populated, you can modify the components using Imaging's Solution Editor, as described in Solution Editor.
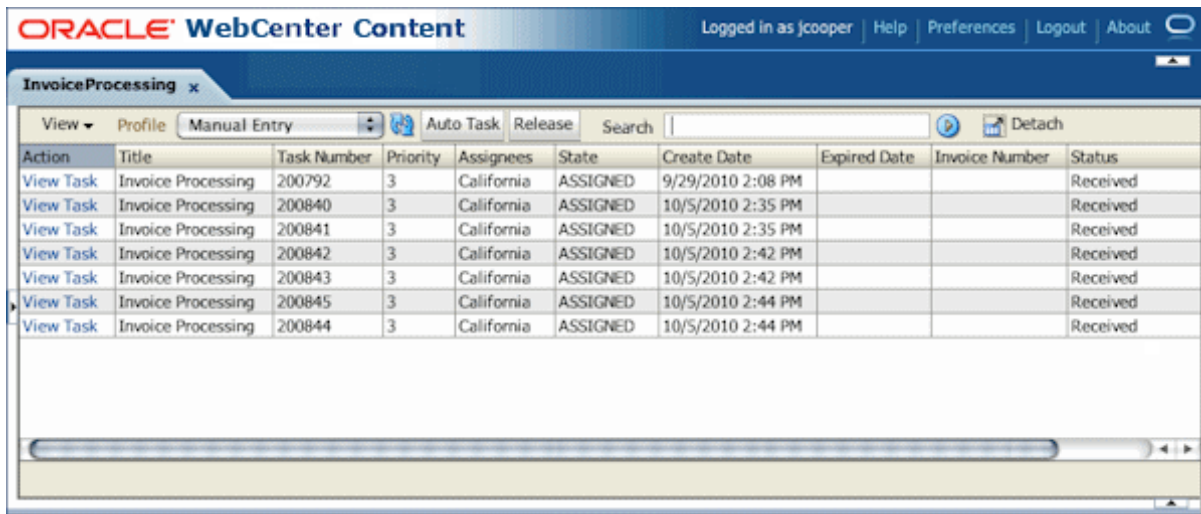
- About the Task List

- About the Task Viewer

- About the Enumeration Picker

- About the Identity Picker

- About Comments

1.2.3.1 About the Task List

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

For configuration information, see Task List Web Tool.

Figure 1-1   Task List Web Tool

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

1.2.3.2 About the Task Viewer

The Task Viewer web page shown in Figure 1-2 displays images and metadata values through interaction with the AXF infrastructure, BPEL, Imaging, and the business application. It also typically displays a side menu containing AXF action commands. It may also include a summary section with metadata values, a comments section, and a dynamic data table.

For configuration information, see Task Viewer Web Tool.

Figure 1-2   Task Viewer Web Tool
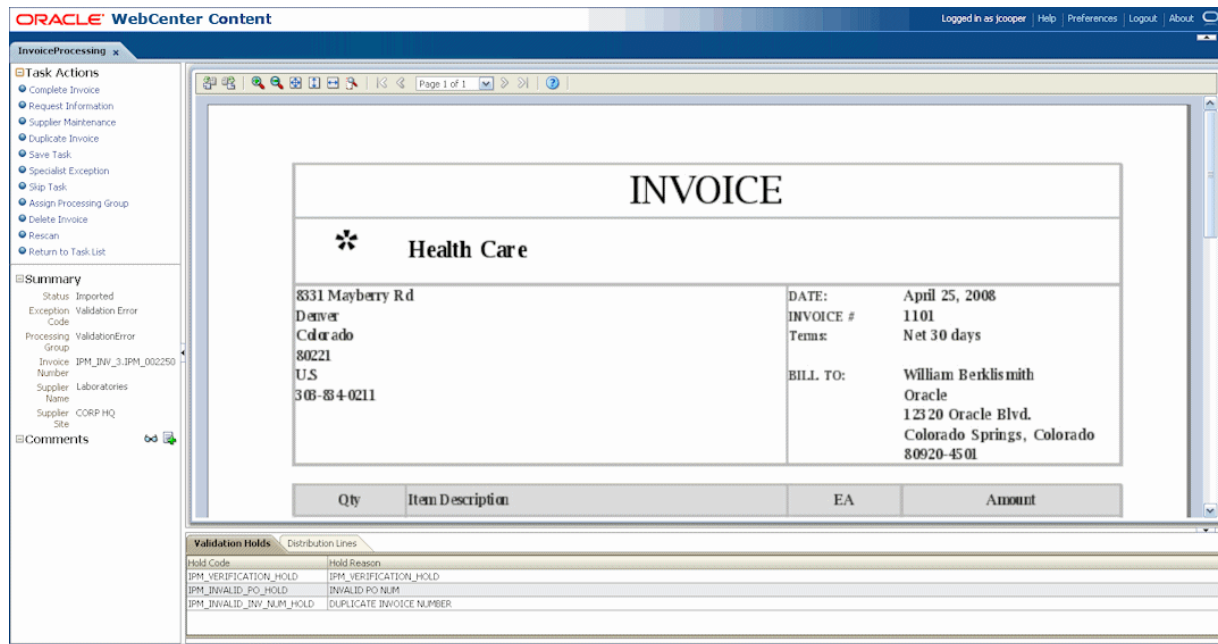
1.2.3.3 About the Enumeration Picker

The Enumeration Picker web page shown in Figure 1-3 enables users to select from a list of enumerated values.

For configuration information, see Enumeration Picker Web Tool.

Figure 1-3   Enumeration Picker Web Tool
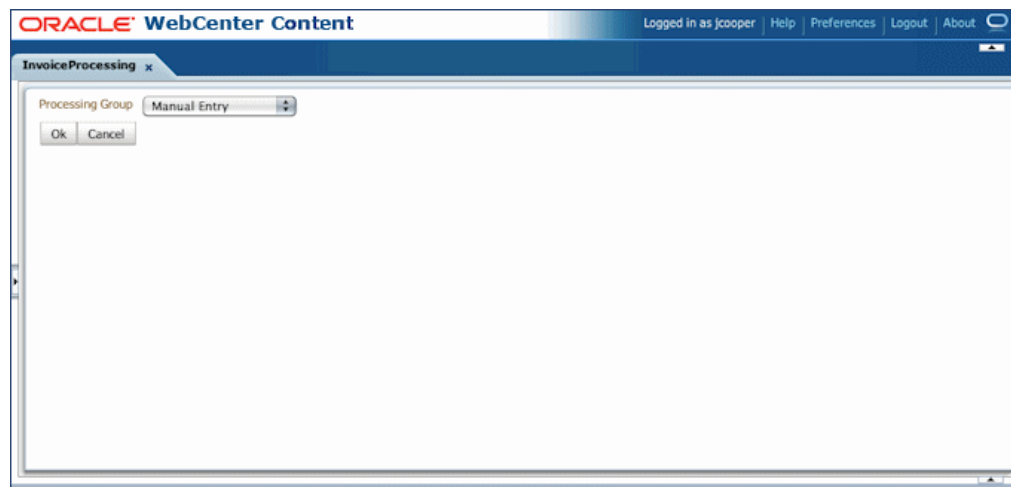
1.2.3.4 About the Identity Picker

The Identity Picker web page shown in Figure 1-4 enables users to select one or more users or groups from an identity store configured for BPEL. After the user chooses an identity, AXF typically performs a related, configurable action. Most likely, it assigns or delegates a task to the selected user or group of users. For example, a business user who encounters a problem with a transaction might select an exception handler to send the transaction to, after entering a comment that describes the problem.

For configuration information, see Identity Picker Web Tool.

Figure 1-4 Identity Picker Web Tool
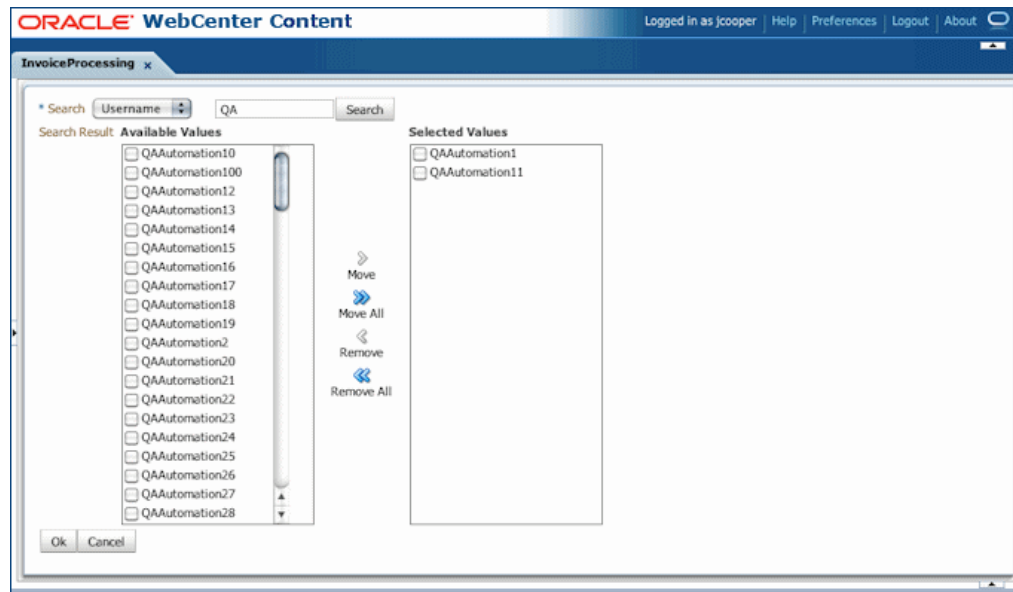
1.2.3.5 About Comments

The Comments web page shown in Figure 1-6 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 1-2. 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 1-2. To add a comment, users click the **Add Comment** icon.

Figure 1-5   View Comments Icon (left), Add Comment Icon (right)

For configuration information, see Comments and AXF_METADATA_BLOCKS Table.

Figure 1-6   Comments Web Tool
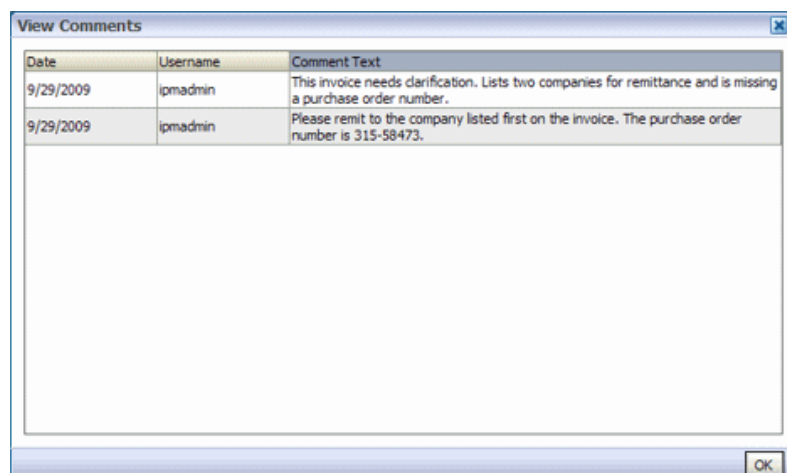
1.3 About the Managed Attachments Solution

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

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

The Managed Attachments Solution, shown in Figure 1-7, enables business users to attach, scan, and retrieve attachments stored in a Content Server repository. An Oracle WebCenter Content Server repository enables users throughout an enterprise to view, collaborate on, and retire content, ensuring that content is secure, accurate, and up-to-date.

Figure 1-7 Managed Attachments Page
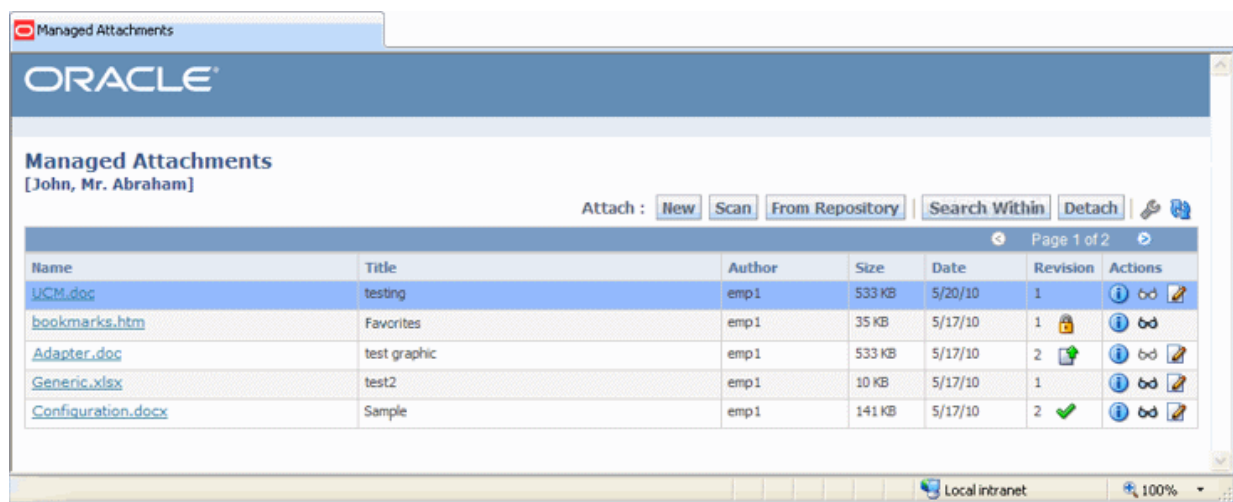
This section covers the following topics:

- Business User View of the Managed Attachments Solution

- About the AXF Command and Service Used By the Attachments Solution

1.3.1 Business User View of the Managed Attachments Solution

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

- Check in new documents to Content Server and attach them to the selected business application entity

- Scan and import documents using Oracle WebCenter Enterprise Capture, attaching them to the selected business application

- Open documents in their native application, Web-viewable format, or AutoVue viewer (if configured)

- Detach documents from the selected business application entity

- Search Content Server and attach documents to the selected business application entity from the Content Server repository

- Check out documents, locking them to changes by other users

- Modify a document's metadata values

- If configured, view a previous attached revision and update the attachment revision

- View an attached document's information

> **Note:**
>
> For details about Managed Attachments Solution user tasks, see the *Using the Application Adapters for Oracle WebCenter*.

1.3.1.1 Attachments Scenario 1: Capturing Identity Documents

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

1. From the business application, a user retrieves a record such as an employee record.

2. The user launches the Managed Attachments solution, by selecting a command or clicking a link or button called **Scan Employee Document**.

3. Oracle WebCenter Enterprise Capture launches and automatically initiates a scan (if a scanner is attached to the desktop) or enables the user to upload electronic images from desktop.

4. The user selects attachment settings, clicks **Scan Document**, then enters metadata (index) values in Oracle WebCenter Enterprise Capture to store with the images.

5. The user clicks **Release**, and the captured document images and their metadata are transmitted from Oracle WebCenter Enterprise Capture to Content Server.

6. The user clicks the **Refresh** button to see the newly scanned or imported document listed as attached to the selected employee record.

1.3.1.2 Attachments Scenario 2: Viewing and Editing Identity Documents

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

1. From the business application, the user retrieves an employee record.

2. The user launches the Managed Attachments solution, by selecting a command or clicking a link or button called **View Employee Documents**.

3. The Managed Attachments page displays, listing attachments for the employee record.

4. An attachment may show its revision number, and if it was checked out by the user or another user. If revision-specific mode has been configured and an older revision is attached, the user can either view the older attached revision or view the newer revision and make it the new attached version.

5. The user selects an attached document's **Edit** icon. As the user makes updates to the document, it is checked out to the user and other users cannot edit it. When the user checks in the revised document, its revision number is incremented.

6. The document displays in Content Server (or the AutoVue viewer), where the user can view its images, and with appropriate permissions, apply annotations or redactions.

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

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

- When the business application user activates the Managed Attachments command from a business application entity, the adapter makes an AXF request. The solution supports a single AXF command namespace called **UCM_Managed_Attachments**, which invokes the AF_GRANT_ACCESS command.

- The **AF_GRANT_ACCESS** command implements the **AF_GRANT_ACCESS** service. This Content Server service temporarily grants a user who has logged into the business application access to all Content Server documents associated with the selected business application entity and to which the user has security group access. This service also returns an AXF response containing a Managed Attachments URL to invoke the Content Server **attachments framework search**. This framework search lists all documents associated with the business application entity.

- With the returned URL, the adapter opens the Managed Attachments browser window for the business application user, also displaying key values (AFLabel) for the business application entity with which the attachment list is associated, and optionally passing in metadata values from the business application to Content Server.

How Content Server Access is Granted to the Business Application User

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

1.4 About Adapter Components

This section describes the main components of the application adapters in the following topics:

- Business Application Plug-In

- AXF Infrastructure for 11g Release

- AXF User Interface Components for 11g Release

- Content Server Components (Managed Attachments)

- AXF Solution Accelerators for 11g Release

1.4.1 Business Application Plug-In

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

- **Oracle E-Business Suite:** Configuring the Oracle E-Business Suite plug-in consists of running PL/SQL scripts against the Oracle E-Business Suite database that populate tables and configure functionality. See Configuring the Oracle E-Business Suite Plug-In. AXF-related Oracle E-Business Suite tables enable AXF components on Oracle E-Business Suite forms or pages.

  – For **Forms** configurations, you also upload files to the Oracle E-Business Suite system that integrate custom actions with pre-existing Oracle E-Business Suite Forms.

  – For **OAF** configurations (available for Managed Attachments only), you import files to the MDS repository and add a Managed Attachments button via OAF page personalization.

- **PeopleSoft:** Configuring the Oracle PeopleSoft plug-in consists of importing the Oracle PeopleSoft project, configuring the Integration Broker to communicate with AXF, setting user roles, and enabling AXF functionality on Oracle PeopleSoft pages. See Configuring the Oracle PeopleSoft Plug-In. AXF-related Oracle PeopleSoft tables enable AXF components on Oracle PeopleSoft pages.

- **Other business application:** A generic component called the Enterprise Application Adapter Framework allows you to customize the Managed Attachments solution for use with a business application other than Oracle E-Business Suite or Oracle PeopleSoft. For more information, see Configuring the Enterprise Application Adapter Framework.

1.4.2 AXF Infrastructure (*11g Release*)

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

The AXF infrastructure contains the following components:

- Solution Mediator

- AXF Request /Response

- Command Mediator

- AXF Commands

- Conversation

1.4.2.1 Solution Mediator

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

1.4.2.2 AXF Request /Response

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

1.4.2.3 Command Mediator

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

1.4.2.4 AXF Commands

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

- The BPEL Imaging solution uses multiple AXF commands, as described in About AXF Commands Used by the BPEL Imaging Solution.

- The Managed Attachments solution uses a single AXF command that implements Content Server services that temporarily display and provide access to documents associated with a business application entity. See About the AXF Command and Service Used By the Attachments Solution.

1.4.2.5 Conversation

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

1.4.3 AXF User Interface Components (*11g Release*)

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

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

1.4.4 Content Server Components (Managed Attachments)

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

1.4.5 AXF Solution Accelerators (*11g Release*)

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

Note:

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

1.5 About Adapter Security and Authentication

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

Table 1-1   Security Controls for the Adapter

Authentication/ Security Level	Business Applications	Supported Solutions	Description	Configuration Information
Web Service Authentication (WSS/SOAP) (for 11*g* only)	Oracle E-Business Suite and Oracle PeopleSoft	BPEL Imaging and Managed Attachments	Occurs when web service calls are made to AXF. The solutions support user authentication against the AXF solution mediator web services using a user name token security installed on the application server on which AXF resides. • In Oracle E-Business Suite, set user name token authentication using an AXF_SOAP_POLICY key in the properties table (AXF_PROPERTIES or OAF_AXF_PROPERTIES). • In Oracle PeopleSoft, configure the Integration Broker node that communicates to AXF with user name token authentication.	For Oracle E-Business Suite, see Securing Communications Through SOAP Security. For Oracle PeopleSoft, see Configuring Communication With an 11g AXF Server.

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

Authentication/ Security Level	Business Applications	Supported Solutions	Description	Configuration Information
Web Service Authentication (WSS/SOAP) (for 12*c* only)	Oracle E-Business Suite and Oracle PeopleSoft	Managed Attachments	Occurs when web service calls are made to Content Server. The solutions support user authentication against the Content Server web services using a user name token security. • In Oracle E-Business Suite, set user name token authentication using an AXF_SOAP_POLICY key in the properties table (AXF_PROPERTIES or OAF_AXF_PROPERTIES). • In Oracle PeopleSoft, configure the Integration Broker node that communicates to AXF with user name token authentication.	For Oracle E-Business Suite, see Securing Communications Through SOAP Security. For Oracle PeopleSoft, see Configuring Communication With a 12c AXF Server.
SSL	Oracle E-Business Suite and Oracle PeopleSoft	BPEL Imaging and Managed Attachments	For Oracle E-Business Suite, configure SSL settings through the AXF_CONFIGS and AXF_PROPERTIES tables (Forms) or OAF_AXF_CONFIGS and OAF_AXF_PROPERTIES tables (OAF). For Oracle PeopleSoft, configure SSL settings via Integration Broker. For both Oracle E-Business Suite and Oracle PeopleSoft, configure web server-based digital certificates on the business application and Oracle WebCenter Content side.	For Oracle E-Business Suite, see Securing Communications Through SSL (Oracle E-Business Suite). For Oracle PeopleSoft, see Securing Communications Through SSL (Oracle PeopleSoft).
AXF to Content Server (for 11*g* only)	Oracle E-Business Suite and Oracle PeopleSoft	Managed Attachments	Enable trusted communication between the host on which AXF is running and the Content Server.	See Securing Communications Between AXF and Content Server.
Document Security	Oracle E-Business Suite and Oracle PeopleSoft	Managed Attachments	Users specify private or shared access to a document upon attachment (check-in to Content Server). • Users can access private documents only through the Managed Attachments page. • Any Content Server user with the document's security group access can access shared documents.	See Configuring Document Security.

1.6 Adapter System Requirements

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

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

> **Note:**
>
> When beginning configuration, be sure to check MyOracleSupport for the latest patches to apply.

General requirements include:

- Oracle E-Business Suite

- Oracle PeopleSoft Enterprise

- SOA 11g (Imaging Solutions Only)

- Additional Managed Attachments Requirements

1.6.1 Oracle E-Business Suite

- A fully functioning Oracle E-Business Suite system. The Oracle E-Business Suite application adapter supports both Oracle E-Business Suite Forms (Imaging and Managed Attachments) and OAF web pages (Managed Attachments only). See the certification matrix for supported releases. Also see the Oracle E-Business Suite requirements in System Requirements for the Managed Attachments Solution.

- For Forms applications, Oracle E-Business Suite Forms Builder is required for .PLL compilation. Specific releases are listed in the matrix.

- To avoid duplicate logins, Oracle Single Sign-On or Oracle Access Manager is required. For more information, see the *Securing Applications with Oracle Platform Security Services*.

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

1.6.2 Oracle PeopleSoft Enterprise

- A fully functioning Oracle PeopleSoft system, including PeopleTools. See the certification matrix for supported releases.

- To avoid duplicate logins, Oracle Single Sign-On or Oracle Access Manager is required. For more information, see the *Securing Applications with Oracle Platform Security Services*.

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

1.6.3 SOA 11g (Imaging Solutions Only)

For either imaging solution, SOA 11*g* is required, along with available patch sets. A BPEL server instance is also required. BPEL is part of SOA 11*g*.

> **Note:**
>
> SOA 11*g* is not needed if configuring the Managed Attachments Solution only.

> **Note:**
>
> Specific version mapping between Oracle WebCenter Content (formerly Oracle Enterprise Content Management) and SOA Suite is required. Refer to the following certification information at:
>
> http://www.oracle.com/technetwork/middleware/webcenter/
> content/documentation/documentation-155348.html

1.6.4 Additional Managed Attachments Requirements

The Managed Attachments Solution has additional requirements, listed in System Requirements for the Managed Attachments Solution.

The Managed Attachments solution is supported on WebSphere Application Server when Content Server is running on WebSphere Application Server and Application Extension Framework (Imaging Server) is running on Oracle WebLogic Server.

1.7 Adapter Configuration Roadmap

This section lists the major configuration steps for the adapter, after installation.

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.	Configuring the Oracle E-Business Suite Database
Configure one or both Oracle E-Business Suite plug-ins: • For Forms configuration, compile Oracle E-Business Suite Forms by modifying PLL files. • For OAF configuration, add the Managed Attachments button to OAF pages via personalization.	• Compiling Oracle E-Business Suite Forms (Forms) • Configuring Oracle Application Framework (OAF) Pages Via Personalization (OAF)
Secure Oracle E-Business Suite to AXF communications via SOAP security and SSL.	Securing Adapter Communications for Oracle E-Business Suite

Tasks	Refer To
Configure Oracle E-Business Suite logging.	Configuring Oracle E-Business Suite Logging

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

Tasks	Refer To
Import the Oracle PeopleSoft integration project.	Importing the Oracle PeopleSoft Project
Configure Integration Broker to communicate with AXF securely and configure AXF access for Oracle PeopleSoft users.	Configuring and Securing Adapter Communications for Oracle PeopleSoft
Place AXF components on Oracle PeopleSoft pages.	Placing AXF Components on Oracle PeopleSoft Pages
Configure Oracle PeopleSoft logging.	Configuring Oracle PeopleSoft Logging

3. **Configure AXF settings.**

Tasks	Refer To
Configure AXF logging.	Configuring Logging for AXF for BPEL

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

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

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

Tasks	Refer To
Ensure your configuration meets additional Managed Attachments system requirements.	System Requirements for the Managed Attachments Solution
Run Managed Attachments installation scripts.	Running Configuration Scripts to Enable Managed Attachments
Configure Content Server components.	Configuring the Content Server Components
If configuring Managed Attachments for a business application other than Oracle E-Business Suite or Oracle PeopleSoft, configure the Enterprise Application Adapter Framework.	Configuring the Enterprise Application Adapter Framework
Configure Managed Attachments variables.	Configuring Managed Attachments Settings
Customize Managed Attachments functionality as needed.	Customizing the Managed Attachments Solution
Configure authentication and security.	Configuring Authentication and Security
Configure document viewing with AutoVue (optional).	Configuring Oracle AutoVue Document Viewing
Configure document scanning/importing with Oracle WebCenter Enterprise Capture or Oracle Distributed Document Capture (optional).	Configuring Oracle WebCenter Enterprise Capture, Configuring Oracle Distributed Document Capture

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 WebCenter adapter solutions, including configuring the Oracle E-Business Suite database, compiling Oracle E-Business Suite Forms, and configuring Oracle Application Framework (OAF) pages via personalization. It also addresses securing communications through SOAP security and SSL.

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

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

This chapter covers the following topics:

- Configuring the Oracle E-Business Suite Database

- Compiling Oracle E-Business Suite Forms

- Configuring Oracle Application Framework (OAF) Pages Via Personalization

- Securing Adapter Communications for Oracle E-Business Suite

- Configuring Oracle E-Business Suite Logging

- Setting User Locales

- Configuring Solutions for Oracle E-Business Suite

- Uninstalling AXF From Oracle E-Business Suite

2.1 Configuring the Oracle E-Business Suite Database

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

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

- PL/SQL Procedures Provided

- Running the PL/SQL Scripts

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

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

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

1. Create a user named AXF.

   A system account user name and password is required to create the user. For assistance creating the user, contact your DBA.

2. Assign the configuration schema user the following access privileges:

   - Create table
   - Create sequence
   - Create type
   - Create public synonym
   - Create session
   - Create procedure
   - Unlimited tablespace

2.1.2 PL/SQL Procedures Provided

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

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

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

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

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

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

2.1.3 Running the PL/SQL Scripts

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

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

   - For 11*g* Oracle E-Business Suite Forms:

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

     MW_HOME/ECM_HOME/axf/adapters/ebs/R12/

   - For 11*g* Oracle E-Business Suite OAF:

     MW_HOME/ECM_HOME/axf/adapters/ebs/oaf/

   - For 12*c* Oracle E-Business Suite Forms:

     MW_HOME/wccontent/ucm/Distribution/EBSIntegration/R11/

     MW_HOME/wccontent/ucm/Distribution/EBSIntegration/R12/

   - For 12*c* Oracle E-Business Suite OAF:

     MW_HOME/wccontent/ucm/Distribution/EBSIntegration/oaf/

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

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

3. As the AXF user, execute the **AXF_CREATE_TABLES_SYNONYM** script from the applicable Oracle E-Business Suite location.

To execute the script, enter:

```
@AXF_CREATE_TABLES_SYNONYM.sql
```

Verify that the following tables were created: AXF_COMMAND_PARAMETERS, AXF_COMMANDS, AXF_CONFIGS, AXF_PROPERTIES, and AXF_FND_MAP.

4. As the AXF user, customize and execute the **OAF_AXF_CREATE_TABLES_SYNONYM** script from the applicable Oracle E-Business Suite location.

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

To execute the script, enter:

```
@OAF_AXF_CREATE_TABLES_SYNONYM.sql
```

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

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

5. As the AXF user, execute the **AXF_EBS_PROPERTIES_DATA** script from the applicable Oracle E-Business Suite location.

To execute the script, enter:

```
@AXF_EBS_PROPERTIES_DATA.sql
```

6. Log in as the APPS user.

7. As the APPS user, execute the **AXF_APPS_INIT** script from the applicable Oracle E-Business Suite location.

Execute the script by entering:

```
@AXF_APPS_INIT.sql
```

8. As the APPS user, execute the **AXF_ADD_EBS_ATTACHMENT_PROC_R12** or **AXF_ADD_EBS_ATTACHMENT_PROC_R11** script from the applicable Oracle E-Business Suite location.

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

```
@AXF_ADD_EBS_ATTACHMENT_PROC_R12.sql
```

```
@AXF_ADD_EBS_ATTACHMENT_PROC_R11.sql
```

> **Note:**
>
> This compilation may result in warnings, which you can ignore.

9. As the APPS user, execute the **AXF_MANAGED_ATTACH_AVAIL**, **AXF_MANAGED_ATTACH_VALUES**, and **AXF_MANAGED ATTACHMENT_DATA** scripts from the applicable Oracle E-Business Suite location.

   Execute the scripts by entering:

   ```
   @AXF_MANAGED_ATTACH_AVAIL.sql
   ```

   ```
   @AXF_MANAGED_ATTACH_VALUES.sql
   ```

   ```
   @AXF_MANAGED_ATTACHMENT_DATA.sql
   ```

10. As the APPS user, execute the **AXF_SOAP_CALL_PROC** script from the applicable Oracle E-Business Suite location.

    Execute the script by entering:

    ```
    @AXF_SOAP_CALL_PROC.sql
    ```

    > **Note:**
    >
    > This compilation may result in warnings, which you can ignore.

2.2 Compiling Oracle E-Business Suite Forms

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

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

The *AXF_Custom.PLL* component performs the following functions:

- Calls out to a web service to execute an AXF Command

- Responds to the following AXF response commands:

  - Open Browser

  - Terminate Conversation

- Renders menus to expose AXF functionality based on the Oracle E-Business Suite configuration database.

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

> **Note:**
>
> To compile AXF_CUSTOM.pll using an alternative command line method (applicable for Oracle E-Business Suite 12 Forms use only), see Compiling AXF_CUSTOM.pll Using the Command Line.

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

1. For the applicable version listed below, copy the **AXF_CUSTOM.pld** file to the E-Business Server (to **FORMS_PATH** for Oracle E-Business Suite 12, or **FORMS60_PATH** for Oracle E-Business Suite 11).

   For 12*c*

   Oracle E-Business Suite 12: *MW_HOME/wccontent*/ucm/Distribution/
   EBSIntegration/R12/AXF_CUSTOM.pld

   Oracle E-Business Suite 11: *MW_HOME/wccontent*/ucm/Distribution/
   EBSIntegration/R11/AXF_CUSTOM.pld

   For 11*g*

   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**.

   > **Note:**
   >
   > - You must compile AXF_CUSTOM using the APPS schema user ID.
   >
   > - If you encounter the following identifier or other errors referencing objects in APPCORE.pll while compiling, this indicates that the `APPCORE.pll` file must be attached to your form:
   >
   >   `'APP_SPECIAL.ENABLE' must be declared (a).`

6. Select **File** then **Connect** and ensure that you are connected to the database as the APPS user.

7. Back up the `CUSTOM.pll` file.

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

8. Open `CUSTOM.pll` by selecting **File**, then **Open** and selecting **PL/SQL Libraries** (*.pll) in the Files of Type field. After opening the file and expanding Program Units, right-click the custom package body of CUSTOM.pll and select pl/sql editor.

9. In the body text of CUSTOM.pll, modify the following text formatted in bold italics for the solutions you are configuring. If the file contains other customizations, place the following modification after the existing code inside each function/procedure.

- *For Managed Attachments Only or Both Solutions:*

```
function zoom_available return boolean is
begin

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

- *For Imaging Solution Only:*

```
function zoom_available return boolean is
begin

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

Important:

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

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

---

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

```
procedure event(event_name varchar2) is
begin

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

end event;
```

Note:

Do not remove the null; line.

---

11. Save CUSTOM.pll by selecting **File**, then **Save**.

12. With CUSTOM.pll open, determine if AXF_CUSTOM is listed as an attached library.

- If it is listed, highlight AXF_CUSTOM and click the minus (-) symbol to detach it. Then reattach AXF_CUSTOM by highlighting Attached Libraries under CUSTOM and clicking the plus (+) symbol; browse to AXF_CUSTOM.pll and select it.

- If it is not listed, attach AXF_CUSTOM by highlighting Attached Libraries under CUSTOM and clicking the plus (+) symbol; browse to AXF_CUSTOM.pll and select it.

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

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

14. With CUSTOM.pll open, select **Program**, then **Compile pl/sql,** then **All** (Oracle E-Business Suite 12) or **Program**, then **Compile**, then **All** (Oracle E-Business Suite 11).

15. Compile CUSTOM into a module (.plx) by selecting **Program**, then **Compile Module** (Oracle E-Business Suite 12) or **File**, then **Administration**, then **Compile File** (Oracle E-Business Suite 11).

16. Save all before exiting Forms Builder. Verify that the Zoom menu command displays in the appropriate Oracle E-Business Suite forms.

2.2.1 Compiling AXF_CUSTOM.pll Using the Command Line

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

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

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

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

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

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

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

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

4. Modify the CUSTOM.pll file by following the steps in Compiling Oracle E-Business Suite Forms, *starting with step 6*. Complete the remaining steps.

2.3 Configuring Oracle Application Framework (OAF) Pages Via Personalization

Managed Attachments functionality for OAF pages works as follows:

- You manually add a Managed Attachments button to the OAF page using OAF personalization, positioning the button in a custom flex region imported into the MDS repository.

- The button is associated with a generic extended controller class which redirects the call from Oracle E-Business Suite to a custom intermediate OAF page, passing the required Oracle E-Business Suite mapping entities.

- The controller class analyzes which OAF page called it. The OAF page's key identifiers (name, view object, primary key attributes, and labels) are stored in the database tables. Based on the OAF page calling the controller, the solution fetches the appropriate rows from the database tables along with the required business entity values, which it adds as parameters to the custom intermediate OAF page's URL.

- When the user clicks the Managed Attachments button, the custom intermediate OAF page opens, its ProcessRequest method is called, and the SOAP packet is created. The SOAP call fetches the Content Server URL, and upon loading, the page is redirected to the Content Server URL.

> **Note:**
>
> In addition to configuring OAF pages for Managed Attachments functionality, you can also provide imaging access on OAF pages, as described in Configuring Other Services on OAF Pages (Optional).

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

- Compiling Java Files_ Copying Class Files_ and Importing XML Files

- Personalizing OAF Pages to Add Managed Attachments

- Personalizing OAF Pages for Oracle E-Business Suite 12.2.x

- Configuring Other Services on OAF Pages (Optional)

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

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

> **Note:**
>
> This procedure assumes you are familiar with using JDeveloper to compile Java files. For basic information, see the section on building your first program with JDeveloper 10g at:
>
> `http://download.oracle.com/otndocs/tech/ias/portal/files/RG/OBE/FirstStep/FirstStep.htm`

1. Verify that you are using the correct JDeveloper version for your Oracle E-Business Suite release. At `http://support.oracle.com`, search for the following articles

to verify that your JDeveloper version includes the needed OAF patch. If you do not have the correct version, download and unzip the appropriate JDeveloper OAF patch file.

- Doc ID 416708.1, How to find the correct version of JDeveloper to use with Oracle E-Business Suite 11i or Release 12.x

- Doc ID 357218.1, Troubleshooting JDeveloper setup for Oracle Applications

2. Start JDeveloper, and create an application. Within the new application, create a project.

3. In the following location, locate the java files **GenericUcmButtonCO.java** and **RedirectToAxfCO.java** and add them to the project:

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

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

4. In the project properties, add the following OAF libraries:

   - BC4J Client

   - BC4J Runtime (Note: Do NOT add BC4J *EJB* Runtime)

   - Cabo

   - FND Libraries

5. Compile the Java files in the project (right-click the project and choose **Rebuild**).

6. Copy the class files (find **Output Directory**, which has the generated classes, via project properties) to the specified Oracle E-Business Suite mid tier $JAVA_TOP directory, creating the required directory structure.

   - Class files to copy: **GenericUcmButtonCO.class** and **RedirectToAxfCO.class**

   - Oracle E-Business Suite Server directory to copy class files to:

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

7. Import the XML file for the Generic Flex Layout Region into the MDS Repository.

   - XML file to import: **ManagedAttachmentButtonRN.xml**

   - Directory from which to execute the command (might be $JDEV_USER_HOME, then up two levels to jdevbin):

     $JdevHome/jdevbin/oaext/bin

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

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

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

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

> **Note:**
>
> If the import fails and returns an error that a jar file is missing, add the full path for the **oamdsdt.jar file** to the CLASSPATH entry in the import script (import file on Linux, import.bat on Windows). The full path for oamdsdt.jar is:
>
> ```
> $JdevHome/jdevbin/oaext/lib/oamdsdt.jar
> ```
>
> For example, the import file typically contains a CLASSPATH entry of the form:
>
> ```
> set CLASSPATH=$JRAD_ROOT/jdev/appslibrt/uix2.jar
> ```
>
> Change it to add the required jar, like this:
>
> ```
> set CLASSPATH=$JRAD_ROOT/jdev/appslibrt/uix2.jar:/
> oracle/r12/JDeveloper/jdevbin/oaext/lib/oamdsdt.jar
> ```

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

   - XML file to import: **RedirectToAxfPG.xml**

   - Directory from which to execute the command:

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

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

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

     Example RedirectToAxfPG import command (where the XML file is in the $JAVA_TOP directory):

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

> **Note:**
>
> If the import fails and returns an error that a jar file is missing, see the note in step 7.

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

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

10. Load the **oaf_axf_messages.ldt** message bundle using FNDLOAD. This file contains the translatable messages used by the controller classes.

   - Verify that the LD_LIBRARY_PATH variable is set to `$ORACLE_HOME/lib`

   - As the Oracle E-Business Suite APPS user, execute the following command from $FND_TOP/bin:

      ```
      FNDLOAD apps/$CLIENT_APPS_PWD 0 Y UPLOAD $FND_TOP/patch/115/import/afmdmsg.lct
      Full path to oaf_axf_messages.ldt
      ```

   - When prompted, enter the APPS user password.

11. Restart the Oracle E-Business Suite instance.

2.3.2 Personalizing OAF Pages to Add Managed Attachments

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

> **Note:**
>
> Add one Managed Attachments button per OAF page only; including multiple buttons causes the same controller code to execute multiple times.
>
> The Managed Attachments functionality cannot be implemented for attachments for line items on OAF pages.

1. Log in to Oracle E-Business Suite as the OPERATIONS user.

2. Display the OAF page on which to add a Managed Attachment button, and click the **Personalize the page** link at the top of the page.

3. Under **Personalization Structure** on the Personalize Page page, select the **Complete View** option, and click the **Expand All** link. A full hierarchical view of all regions on the OAF page displays.

4. Create and configure the flexible layout.

   a. Scroll down the hierarchical listing below the region where the button will display on the OAF page and click the **Create Item** icon. A Create Item page displays, as shown in Figure 2-1.

   b. In the **Level** field, select **Site**.

   c. In the **Item Style** field, select **Flexible Layout**.

    d. In the **ID** field, enter any value (`test`, for example).

    e. Click **Apply**.

Figure 2-1   Creating the Flexible Layout
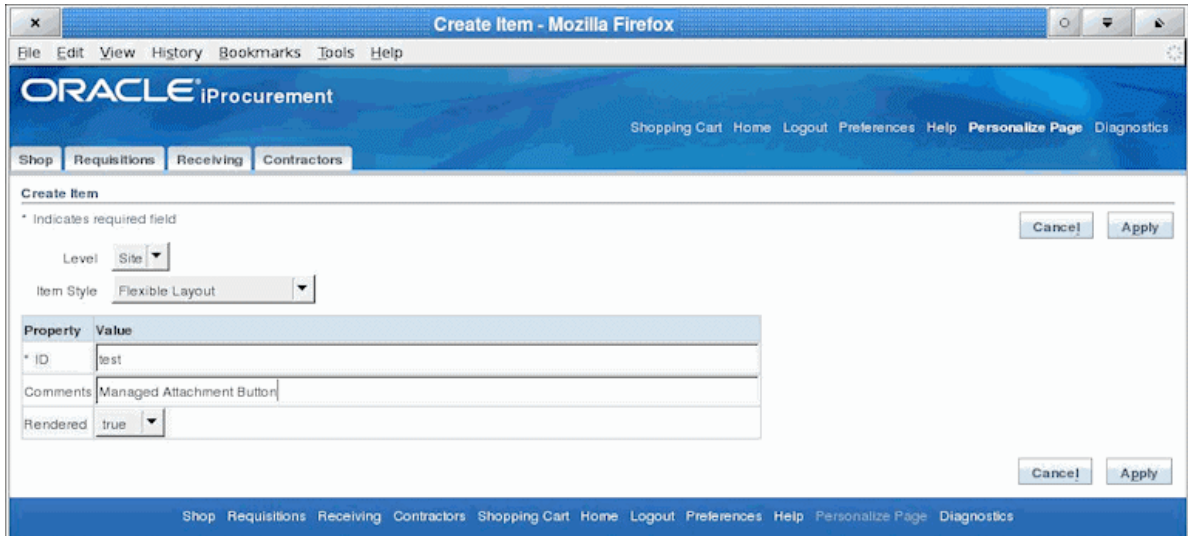
5. Create and configure the flexible content.

    a. In the hierarchical list, locate the flexible layout you just added and click its **Create Item** icon. A Create Item page displays, as shown in Figure 2-2.

    b. In the **Item Style** field, select **Flexible Content**.

    c. In the **ID** field, enter any value (`test1`, for example).

    d. In the **Extends** field, enter the package for the flex region you imported into the MDS repository (in Compiling Java Files_ Copying Class Files_ and Importing XML Files):

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

Figure 2-2   Creating the Flexible Content
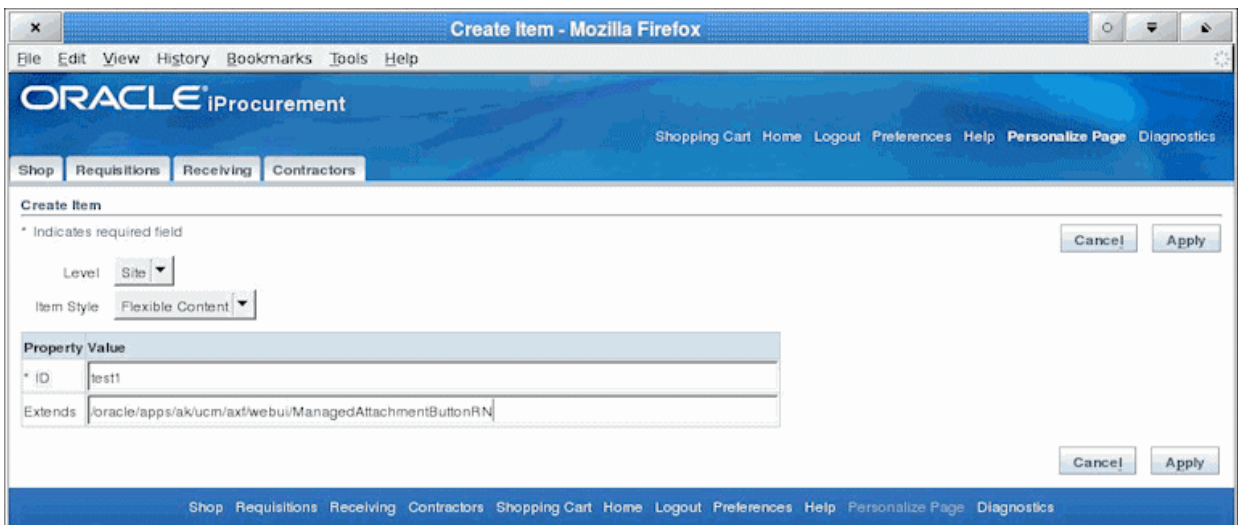
6. Click the **Apply** button.

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

2.3.3 Personalizing OAF Pages for Oracle E-Business Suite 12.2.x

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

1. Source the APPS environment file and run the **adadmin** tool.

2. In the adadmin tool, select **Regenerate all the product jar files**.

3. When adadmin tool finishes regenerating the product jar files, restart the Oracle E-Business Suite servers.

2.3.4 Configuring Other Services on OAF Pages (Optional)

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

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

1. Complete all steps except step 7 in Compiling Java Files_ Copying Class Files_ and Importing XML Files. (Step 7, which imports the ManagedAttachmentButtonRN.xml file, is not needed.)

2. Customize the sample XML file provided (SampleAXFButtonRN.xml), modifying the following button ID and button prompt (title) values.

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

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

3. Import the XML file into the MDS Repository.

- XML file to import: **SampleAXFButtonRN.xml** (or modified version)

- Directory from which to execute the command:

  `$JdevHome/jdevbin/oaext/bin`

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

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

- Example import command (where the XML file is in the $JAVA_TOP directory):

  ./import /$JAVA_TOP/SampleAXFButtonRN.xml -username *appsUsername* -password *appsPassword* -dbconnection "(description = (address_list = (address = (c*U*ommunity = tcp.world)(protocol = tcp)(host = *DB Hostname*)(port = *DB Port*)))(connect_data = (sid = *DB SID*)))" -rootdir /$JAVA_TOP -rootPackage /oracle/apps/ak/ucm/axf/webui

4. Use this button ID for the command in the OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF). The new button ID will correspond to AXF_EVENT_ID. An example is shown in OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF).

5. In the OAF_AXF_CMD_PARAMS table, add required command parameters, if any, for the AXF_EVENT_ID.

6. Follow the steps in Personalizing OAF Pages to Add Managed Attachments to add the button imported above via personalization. In step 5 of Personalizing OAF Pages to Add Managed Attachments, be sure to enter the name of the package you imported into the MDS repository in step 3 of this section. In the example provided, this name is */oracle/apps/ak/ucm/axf/webui/SampleAXFButtonRN*.

2.4 Securing Adapter Communications for Oracle E-Business Suite

This section covers the following topics:

- Securing Communications Through SOAP Security

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

2.4.1 Securing Communications Through SOAP Security

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

Note:

Configuring SOAP security is required.

---

1. Ensure that SOAP security is enabled, by verifying that it is set to TRUE for the AXF_SOAP_SECURITY property in the AXF_PROPERTIES Table (Oracle E-Business Suite) and the OAF_AXF_PROPERTIES Table (Oracle E-Business Suite OAF).

> **Note:** Ensure that you restart Oracle E-Business Suite after changing
> AXF_SOAP_SECURITY from FALSE to TRUE.

2. Set the AXF_SOAP_POLICY property to USER_NAME_TOKEN.

3. Set the AXF_SOAP_USER value (for example, to `weblogic`). By default, this
   setting might be AXF and should be changed. The AXF_SOAP_USER refers to a
   valid Oracle WebLogic Server administrator.

4. Store the SOAP password in the database vault by executing the following
   command as APPS schema:

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

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

   For example:

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

5. Verify the previous command with this statement:

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

   For example:

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

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

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

- Configuring the Oracle Wallet

- Configuring the Integration for SSL

2.4.2.1 Configuring the Oracle Wallet

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

   ```
   //ORACLE_HOME/bin/owm
   ```

2. Create a wallet. Using the wizard, enter the required information to create a
   certificate. Export to a file.

3. Submit the certificate request to CA (Certificate Authority, such as Verisign) to
   purchase a new certificate.

4. Save the SSL certificates with a .cer extension. Most likely, the CA provided an SSL
   certificate, an Intermediate certificate, and a Trusted Root certificate through e-
   mail.

5. Import the Root and Intermediate certificates into the Oracle Wallet by right-
   clicking **Trusted Certificates** and importing.

6. Import the SSL certificate into the wallet manager.

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

Tip:

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

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

2.4.2.2 Configuring the Integration for SSL

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

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

   a. For Oracle E-Business Suite Forms applications:

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

   b. For Oracle E-Business Suite OAF applications:

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

2. Update tables to reflect the SecureMode setting and secure port. When SecureMode is on, the integration attempts to connect to the AXF application using SSL (https).

   a. In the Oracle E-Business Suite AXF_CONFIGS table, update the SOLUTIONENDPOINT value to begin with `https://` if SecureMode is on, or begin with `http://` if SecureMode is off. Change *Port* to match the secure port on the Oracle WebCenter Content side.

   b. In the Oracle E-Business Suite OAF_AXF_CONFIGS table, update the SOLUTIONENDPOINT value to begin with `https://` if SecureMode is on, or begin with `http://` if SecureMode is off. Change *Port* to match the secure port on the Oracle WebCenter Content side.

   For an Imaging configuration, see AXF_CONFIGS Table (Oracle E-Business Suite). For a Managed Attachments Forms configuration, see AXF_CONFIGS Table (Oracle E-Business Suite Forms). For a Managed Attachments OAF configuration, see OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF).

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

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

   Where *WalletPassword* is the wallet password.

4. Verify the previous command with this statement:

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

5. Import the AXF certificate into the wallet.

6. Enable SSL on Oracle WebLogic Server on the Oracle WebCenter Content side.

   For information, see "Configuring SSL for Oracle WebCenter Content Applications" in *Installing and Configuring Oracle WebCenter Content*.

7. Exchange server certificates between the web servers.

   This step involves exporting the certificate from Oracle Wallet and importing it into the Oracle WebLogic Server keystore on the Oracle WebCenter Content side of the integration. This keystore must be enabled for both the Administration and Imaging servers. In addition, you must export the server certificate from the Oracle Weblogic Server and import it into the Oracle Wallet.

2.5 Configuring Oracle E-Business Suite Logging

- Configuring Logging for Forms Applications
- Configuring Logging for OAF Applications

2.5.1 Configuring Logging for Forms Applications

Enable logging for specific forms in the AXF_CONFIGS table. For the Imaging solution, see AXF_CONFIGS Table (Oracle E-Business Suite); for the Managed Attachments solution, see AXF_CONFIGS Table (Oracle E-Business Suite Forms).

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

2.5.2 Configuring Logging for OAF Applications

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

1. Click the **Diagnostics** link at the top of the OAF page.

2. On the Diagnostics page, select the following settings:

   a. In the **Diagnostic** field, select **Show Log on page.**

   b. In the **Log Level** field, select **Statement (1)**.

3. Click **Go**.

4. Navigate to the page with an error. Search for the string Debug--> on the page.

2.6 Setting User Locales

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

2.7 Configuring Solutions for Oracle E-Business Suite

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

For the Imaging Solution

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

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

For the Managed Attachments Solution

1. Configure the Managed Attachments solution as described in Configuring the Managed Attachments Solution. In addition to configuring Content Server components and running the AXF_ATTACHMENTS_CONFIG.sql script, which configures AXF elements such as solutions and commands, you must run scripts to populate the tables for Forms and OAF applications:

   a. For Forms applications, running the AXF_EBS_ATTACHMENTS_CONFIG.sql configures the Zoom menu to enable the Managed Attachments solution. For details, see Enabling Managed Attachments for Oracle E-Business Suite Forms Applications.

   b. For OAF applications, running the OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql script populates the tables listed in Oracle PeopleSoft Tables For the Managed Attachments Solution for the Managed Attachments solution for selected OAF pages, which you can modify for your OAF pages. For details, see Enabling Managed Attachments for Oracle E-Business Suite OAF Applications.

2.8 Uninstalling AXF From Oracle E-Business Suite

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

- Uninstalling From Oracle E-Business Suite Forms

- Uninstalling From Oracle E-Business Suite OAF

2.8.1 Uninstalling From Oracle E-Business Suite Forms

1. Assign the AXF configuration schema user the following privileges:

   - Drop table

   - Drop sequence

   - Drop public synonym

2. As the AXF user, execute the **AXF_DROP_TABLES_SYNONYM** script for your Oracle E-Business Suite version, from the applicable location listed below. This script drops all tables, synonyms, and sequences created by the AXF_CREATE_TABLES_SYNONYM script run during installation.

   For 12*c*

Oracle E-Business Suite 12: *MW_HOME/wccontent*`/ucm/Distribution/`
`EBSIntegration/R12/AXF_DROP_TABLES_SYNONYM.sql`

Oracle E-Business Suite 11: *MW_HOME/wccontent*`/ucm/Distribution/`
`EBSIntegration/R11/AXF_DROP_TABLES_SYNONYM.sql`

For 11*g*

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 Compiling Oracle E-
   Business Suite Forms.

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

7. Open the restored `CUSTOM.pll` by selecting **File**, then **Open** and selecting **PL/SQL
   Libraries** (*.pll) in the Files of Type field.

8. With `CUSTOM.pll` open, select **Program**, then **Compile pl/sql**, then **All** (Oracle E-
   Business Suite 12) or **Program**, then **Compile**, then **All** (Oracle E-Business Suite 11).

9. Compile CUSTOM into a module (.plx) by selecting **Program**, then **Compile
   Module** (Oracle E-Business Suite 12) or **File**, then **Administration**, then **Compile
   File** (Oracle E-Business Suite 11).

10. Save all before exiting Forms Builder.

2.8.2 Uninstalling From Oracle E-Business Suite OAF

1. Assign the AXF configuration schema user the following privileges:

   - Drop table

   - Drop sequence

   - Drop public synonym

2. As the AXF user, execute the **OAF_AXF_DROP_TABLES_SYNONYM** script from
   the location listed below. This script drops all tables, synonyms, and sequences
   created by the OAF_AXF_CREATE_TABLES_SYNONYM script run during
   installation.

   For 12*c*

   MW_HOME/wccontent`/ucm/Distribution/EBSIntegration/oaf/`
   `OAF_AXF_DROP_TABLES_SYNONYM.sql`

For 11*g*

MW_HOME/ECM_HOME/axf/adapters/ebs/oaf/
OAF_AXF_DROP_TABLES_SYNONYM.sql

Execute the script by entering:

@OAF_AXF_DROP_TABLES_SYNONYM.sql

3. Remove the AXF database schema user.

3

Configuring the Oracle PeopleSoft Plug-In

This chapter describes how to configure the Oracle PeopleSoft plug-in for use by one or more WebCenter application adapter solutions. It covers importing the Oracle PeopleSoft project, configuring via Integration Broker, securing communications through SSL, and placing AXF components on Oracle PeopleSoft pages.

This chapter covers the following topics:

- Importing the Oracle PeopleSoft Project

- Configuring and Securing Adapter Communications for Oracle PeopleSoft

- Placing AXF Components on Oracle PeopleSoft Pages

- Configuring Oracle PeopleSoft Logging

- Configuring Solutions for Oracle PeopleSoft

- Uninstalling AXF From Oracle PeopleSoft

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

3.1 Importing the Oracle PeopleSoft Project

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

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

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

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

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

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

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

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

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

3. From the menu, choose **Tools**, then **Copy Project**, then **From File**. The Copy From File dialog box displays.

4. Locate the following directory.

   For 12*c*

   MW_HOME/wccontent/ucm/Distribution/PSFTIntegration/

   For 11*g*

   MW_HOME/ECM_HOME/axf/adapters/psft/

5. Select the **AXF_PS_INTEGRATION** directory and click **Open**.

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

6. Click **Select**, select all definition types, and click **Copy**. The project files begin copying.

7. After all files have copied, choose **Build**, then **Project** from the menu. The Build page displays.

8. Select the **Create Tables** and **Execute SQL Now** options, and click **Build**. You can monitor the build status as the files are imported into Oracle PeopleSoft.

9. Once done, check the PSBUILD.LOG file to verify that the project imported successfully.

10. If the log file shows *tablespace 'AXF' does not exist* errors, the tablespace was not created properly. Manually create a tablespace called AXF in the same database you

logged into when starting the Oracle PeopleSoft Application Designer, then return to step 5 to rebuild the project.

11. Click **Save All** in Oracle PeopleSoft Application Designer.

3.2 Configuring and Securing Adapter Communications for Oracle PeopleSoft

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

This section covers the following topics:

- Securing Communications Through SSL (Oracle PeopleSoft)

- Configuring Integration Broker to Communicate With AXF

- Configuring AXF Access For Oracle PeopleSoft Users

3.2.1 Securing Communications Through SSL (Oracle PeopleSoft)

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

1. Install web server-based digital certificates.

   Refer to the Oracle PeopleSoft documentation for an overview of securing integration environments, and outbound PeopleSoft Integration Broker security processing. In the Enterprise PeopleTools PeopleBook, Integration Broker Administration Guide, see the section on installing web server-based digital certificates.

2. Enable SSL on Oracle WebLogic Server on the Oracle WebCenter Content side.

   For information, see "Configuring SSL for Oracle WebCenter Content Applications" in *Installing and Configuring Oracle WebCenter Content*.

3. Exchange server certificates between the web servers.

   For information, see "exportKeyStoreObject" in *Administering Oracle Fusion Middleware*.

3.2.2 Configuring Integration Broker to Communicate With AXF

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

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

- Configuring Communication With a 12c Server

- Configuring Communication With an 11g AXF Server

- Configuring Communication With a 10g AXF Server

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

- Encrypting the Gateway Password

- Setting Up the Service Operation Routings

- Validating Domain Status

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

3.2.2.1 Configuring Communication With a 12c 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_12C** link.

5. On the Node Definitions tab, select the **Active Node** field. In the **External User ID** and **External Password** fields, enter the user name and password for a valid Oracle WebLogic Server administrator.

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

6. Click the Connectors tab.

7. In the **Property Value** column, set **Host** to the UCM 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 Oracle WebCenter Content side.

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

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

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

9. Click **Save**.

10. Click **Ping Node** to verify that the node is configured properly.

- If configured properly, the word *Success* displays in the message text area of the Ping NodeResults page. Proceed to Setting Up the Service Operation Routings and 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 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 **MA_12C** link.

5. On the Node Definitions tab, select the **Active Node** field. In the **External User ID** and **External Password** fields, enter the user name and password for a valid Oracle WebLogic Server administrator.

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

6. Click the Connectors tab.

7. In the **Property Value** column, set **Host** to the 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 Oracle WebCenter Content side.

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

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

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

9. Click **Save**.

10. Click **Ping Node** to verify that the node is configured properly.

    - If configured properly, the word *Success* displays in the message text area of the Ping NodeResults page. Proceed to Setting Up the Service Operation Routings and 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**.

3.2.2.3 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 Setting Up the Service Operation Routings and Validating Domain Status.

- If *Success* is not displayed, see Encrypting the Gateway Password. 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.

3.2.2.4 Encrypting the Gateway Password

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

1. In Oracle PeopleSoft Server, open **PeopleTools**, then **Integration Broker**, then **Configuration**, then **Gateways**.

2. Search for and open the LOCAL gateway, then click the **Gateway Setup Properties** link.

3. Sign on to access the integrationGateway.properties file.

4. Click the **Advanced Properties Page** link.

5. Use the Password Encryption Utility on the Gateway Properties page to encrypt the secureFileKeystorePasswd value.

6. On the Gateway Properties page, paste the encrypted password after **secureFileKeystorePasswd=** and click **OK**.

3.2.2.5 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.

3.2.2.6 Validating Domain Status

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

1. Navigate to the Service Operation Monitor page by selecting **PeopleTools,** then **Integration Broker,** and then **Service Operations Monitor**. The Service Operations Monitor page displays.

2. Click **Domain Status** under the **Administration** section. The Domain Status page displays.

3. Under Domains, verify that the domain status is listed as **Active** next to the Oracle PeopleSoft Server. If not, select **Active** from the Domain Status field and click **Update**.

3.2.3 Configuring AXF Access For Oracle PeopleSoft Users

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

- Verifying the AXF_ROLE for Oracle PeopleSoft Users

- Manually Adding the AXF_ROLE to Oracle PeopleSoft

- Assigning Users the AXF_ROLE

3.2.3.1 Verifying the AXF_ROLE for Oracle PeopleSoft Users

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

1. In Oracle PeopleSoft Server, open **PeopleTools**, then **Security,** then **Permissions & Roles**. The Permissions & Roles menu expands to show available options.

2. Click **Roles**. The Roles page displays. The AXF_ROLE should be displayed. If it is not, follow the steps below to add it.

3.2.3.1.1 Manually Adding the AXF_ROLE to Oracle PeopleSoft

Follow these steps only if the AXF_ROLE was not successfully verified in the previous section.

1. Click the **Add a New Value** tab.

2. Enter AXF_ROLE in the Role Name field and click **Add**. The Role Name field is cleared and the AXF_ROLE is added. Enter a description if needed and click **Save**.

3. Click **Roles**. Click the **Find an Existing Value** tab and find AXF_ROLE from the listing of available roles. Click AXF_ROLE, and its details are displayed.

4. Click the **Permission Lists** tab, enter AXF_PERMS in the Permission List field, and click **Save**.

3.2.3.2 Assigning Users the AXF_ROLE

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

> **Note:**
>
> You must assign the AXF_ROLE in Oracle PeopleSoft to all users needing access to AXF functionality for AXF calls to process correctly from Oracle PeopleSoft.

1. In Oracle PeopleSoft Server, open **PeopleTools**, then **Security**, then **User Profiles**. The User Profiles menu expands to show available options.

2. Click **User Profiles**. The User Profiles page displays.

3. Select the criteria by which to search, enter it in the search field, and click **Search**. A listing of users displays.

4. Click the user to which to assign the role. A detailed page of user information displays.

5. Click the **Roles** tab. A listing of roles assigned to the user displays.

6. Enter AXF_ROLE in a blank field (clicking the + icon to create a blank row if needed), or click the magnifying glass icon to search for the role.

7. Click **Save**. The user can now access AXF functionality on Oracle PeopleSoft pages.

3.3 Placing AXF Components on Oracle PeopleSoft Pages

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

Determining Primary Keys and Business Objects for Oracle PeopleSoft Page

If needed, follow these steps:

1. In the Oracle PeopleSoft application, navigate to the page to enable.

2. Press **Ctrl+J**. In the info page, note the **Page** and **Component** entries for the selected page.

3. In the Application Designer, select **File/Open** and choose **Page** from the Definition field.

4. In the **Name** field, enter the page name you noted in step 2 and click **Open**.

5. Select the **Order** tab at the top.

6. From the set of fields listed, identify the field that is the most likely unique ID (for example, VOUCHER_ID for Invoice Entry) and note the record name.

    The record name is used for the business object value in the PS_AXF_CMD_PARAMS Table (Managed Attachments solution) and PS_AXF_COMMAND_PARAMS Table (Imaging solution).

7. From the **Insert** menu, choose the **Definitions into Project** command, and select **Records** from the Definition Type field.

8. In the **Name** field, enter the record name you noted in step 6 and click **Insert**.

9. Select the record in the list and click **Insert**. The record is inserted into the Project Tree on the left.

10. Expand the Records tree on the left, then expand the record you added. The primary keys are listed at the top, with a gold key icon to the left of the key name. Note the primary keys.

Sample primary keys

Table 3-1   Sample Primary Keys

Pages	Page Name	Record Name	Primary Key
Maintenance Management > Work Order Management > Work Order	WM_WO_HDR	WM_WO_HDR	BUSINESS_UNIT
Maintenance Management > Work Order Management > Work Order	WM_WO_HDR	WM_WO_HDR	WO_ID
Customer Contracts > Create and Amend > General Information	CA_HDR_PNL	CA_CONTR_HDR	BUSINESS_UNIT

Table 3-1   (Cont.) Sample Primary Keys

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

About Placing AXF Components on Oracle PeopleSoft Pages

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

- **User interface items** refer to AXF buttons, links, and menus you place on an Oracle PeopleSoft page. Five of each are provided (for example, AXF_BUTTON_1 through _5). The Managed Attachments solution uses these user interface items only.

  A user interface item becomes active when positioned on a page. If AXF_BUTTON_1 is placed on multiple pages in the same Oracle PeopleSoft component, it shares the same configuration across the pages. To configure different actions for each page in the same component, use a different user interface item (for example, AXF_BUTTON_2). Note that you can reuse user interface items on different Oracle PeopleSoft components without conflicts.

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

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

  - The AXF_POST_SAVE_SBP item captures SAVE_POST_CHANGE system events, which execute a configured command *after* an Oracle PeopleSoft component is saved.

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

  - The AXF_PRE_SAVE_SBP item captures SAVE_PRE_CHANGE system events, which execute a configured command *before* an Oracle PeopleSoft component is saved.

Steps For Placing AXF Components on Oracle PeopleSoft Pages

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

1. In the Oracle PeopleSoft Application Designer, open the AXF_PS_Integration Project that you imported in step 5 of Importing the Oracle PeopleSoft Project.

2. Open an Oracle PeopleSoft page to enable. For example, open VCHR_HEADER_QV2.

3. From the Pages folder, select a button or link (subpage) and drag it onto the Oracle PeopleSoft page in an appropriate location. For example, drag the link called AXF_LINK1_SBP or the button called AXF_BTN1_SBP. This subpage link or button corresponds to AXF event settings in Table B-35 in PS_AXF_COMMANDS Table (see Table B-36 example).

4. Save the page.

3.4 Configuring Oracle PeopleSoft Logging

The AXF Oracle PeopleSoft adapter uses standard apache log4j logging. You can activate and manage logging through the log4j.properties file. This file is located in the *PeopleSoft Installation Directory*/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=%{dDATE} [%t] %-5p %c %x - %m%n

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

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

- DEBUG

- INFO

- WARN

- ERROR

- FATAL

Note:

For detailed information about log4j, see the log4j documentation.

3.5 Configuring Solutions for Oracle PeopleSoft

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

For the Imaging Solution

1. Configure the Imaging solution as described in Configuring the BPEL Imaging Solution. Configure AXF-related Oracle PeopleSoft tables as described in Oracle PeopleSoft Tables For the BPEL Imaging Solution or apply a solution accelerator as described in Configuring the AXF Tables or Applying a Solution Accelerator.

2. Specify an Oracle PeopleSoft role in the PS_AXF_COMMANDS Table to either grant users permission to use a specified user interface item or allow a specified system event to trigger for a user. See PS_AXF_COMMANDS Table.

For the Managed Attachments Solution

1. Configure the Managed Attachments solution as described in Configuring the Managed Attachments Solution.

2. Make entries or changes to the PeopleSoft AXF tables listed in Oracle PeopleSoft Tables For the Managed Attachments Solution. Running the sample script described in Enabling Managed Attachments for Oracle PeopleSoft populates the tables with sample values that you can modify. You must enter this information:

    a. Enter the primary page keys you noted in Placing AXF Components on Oracle PeopleSoft Pages.

    b. Specify an Oracle PeopleSoft role in the PS_AXF_COMMANDS Table to grant users permission to use a specified user interface item. See PS_AXF_COMMANDS Table.

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 (*11g Release*)

Most AXF configuration is completed as part of Oracle WebCenter Content installation. This chapter describes how to configure additional AXF settings for 11g. It covers the following topics:

- Configuring Logging
- Configuring Coherence

4.1 Configuring Logging

This section covers the following topic:

- Configuring Logging for AXF for BPEL

4.1.1 Configuring Logging for AXF for BPEL

You can configure logging using either of these methods:

- Using Enterprise Manager
- Using Application Server

4.1.1.1 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.
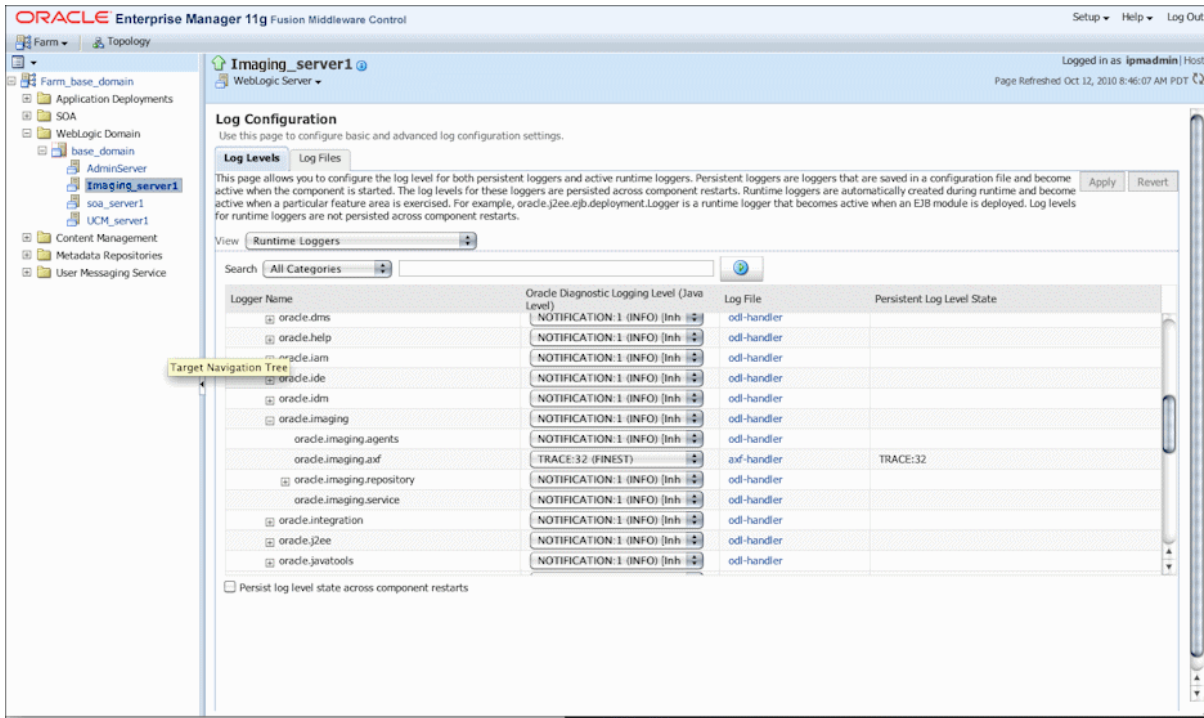
4.1.1.2 Using Application Server

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.

4.2 Configuring Coherence

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

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

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

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

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

```
</defaults>

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

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

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

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

<local-scheme>
<scheme-name>SizeLimitedLocalScheme</scheme-name>
<eviction-policy>HYBRID</eviction-policy>
<!-- 5M -->
<high-units>5</high-units>
<unit-calculator>BINARY</unit-calculator>
<unit-factor>1048576</unit-factor>
```

```
<expiry-delay>4h</expiry-delay>
<cachestore-scheme></cachestore-scheme>
</local-scheme>
</caching-schemes>
</cache-config>
```

5

Configuring the BPEL Imaging Solution (*11g Release*)

This chapter describes how to configure Imaging solution components and options, including configuring the BPEL connection using a Credential Store Framework (CSF) alias, configuring AXF tables, and using a solution accelerator. It also describes options such as clustering and alternate authentication and login.

This chapter covers the following topics:

- Configuring the BPEL Connection

- Configuring the AXF Tables or Applying a Solution Accelerator

- Testing Functionality Using the AXF Driver Page

- Configuring Imaging Solution Options

> **Note:**
>
> You can provide access to the Imaging solution from Oracle E-Business Suite Oracle Application Framework (OAF) applications. For information, see Configuring Other Services on OAF Pages (Optional).

> **Note:**
>
> To make certain modifications to Imaging solutions, such as changing the profiles displayed to users in the Task List and task actions and metadata displayed to users in the Task Viewer, you can use the Imaging Solution Editor.

5.1 Configuring the BPEL Connection

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

- Creating a CSF Credential Alias

- Creating a Connection in Imaging Connections

- Referencing the Connection in the AXF_SOLUTION_ATTRIBUTES Table

5.1.1 Creating a CSF Credential Alias

The Credential Store Framework (CSF) enables you to create a user name/password alias for use in an Imaging connection configuration. With a CSF alias, you supply a key instead of a user name and password, and use this key in creating an Imaging connection. (You can use one CSF key for multiple imaging connections.)

For information about creating keys and aliases, see the *Administering Oracle Fusion Middleware*.

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

5.1.2 Creating a Connection in Imaging Connections

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

1. Log in to the Imaging system as an administrator.

2. From Manage Connections in the side pane, click the + (plus) sign document icon for creating a BPEL connection.

3. Enter a name for the connection, and click **Next**.

   This name is referenced in the AXF_SOLUTION_ATTRIBUTES table to establish the connection.

4. On the BPEL Settings step, enter BPEL connection settings.

   - HTTP Front End Address: http://hostname:BPEL server port

   - Credential Alias (previously created, as described in Creating a CSF Credential Alias)

   - Provider: t3://hostname:BPEL server port

   For example:

   - HTTP Front End Address: `http://hostname:port`

   - Credential Alias: `axf.credential`

   - Provider: `t3://hostname:port`

5. Click **Next**, then **Submit**.

5.1.3 Referencing the Connection in the AXF_SOLUTION_ATTRIBUTES Table

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

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

1. Run the configuration row specified below, where:

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

5.2 Configuring the AXF Tables or Applying a Solution Accelerator

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

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

  OR

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

5.3 Testing Functionality Using the AXF Driver Page

Access the driver page of the AXF web application to verify functionality. For more information about the driver page, see *Installing and Configuring Oracle WebCenter Content*.

5.4 Configuring Imaging Solution Options

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

- Configuring Automatic Imaging Viewer Login
- Allowing Oracle WebLogic Server/Business Application Users to Perform Tasks
- Configuring Clustering for AXF in Imaging Managed Servers
- Configuring Autotask Locking
- Updating the Task Payload Using XPATH
- Targeting a Single Conversation With Multiple Window Instances Displayed
- Adding a Validation
- Deploying Custom Commands

- Configuring Chained Commands and User Interface Components

- Configuring or Disabling a Dynamic Data Table

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

- Resizing Oracle PeopleSoft Popup Solution Windows

5.4.1 Configuring Automatic Imaging Viewer Login

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

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

1. Open the Oracle WebLogic Server Administration Console.

2. On the Home Page, click **Servers** under the Environment heading.

3. Click the Imaging server from the servers listed in the **Name** column.

4. Click the Protocols tab, then the HTTP tab.

5. Make changes in the **Frontend Host** field and appropriate frontend port field. (If using SSL, specify a value in the **Frontend HTTPS Port** field. If not using SSL, specify a value in the **Frontend HTTP Port** field.)

6. Click **Save**.

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

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

The related AXF_SOLUTION_ATTRIBUTES table configuration is shown in Table 5-1; also see AXF_SOLUTION_ATTRIBUTES Table.

Table 5-1   AXF_SOLUTION_ATTRIBUTES Table, USERNAME_PASS_THROUGH Configuration

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AXF	USERNAME_PASS_THROUGH	*TRUE* or *FALSE*

where:

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

- FALSE: Uses the authenticated Oracle WebLogic Server user to perform tasks.

> **Note:**
>
> For Managed Attachments configurations, the USERNAME_PASS_THROUGH parameter should be set to TRUE. The AXF_ATTACHMENTS_CONFIG.SQL script for Managed Attachments (described in Configuring AXF Elements for Managed Attachments) sets this value to TRUE. If no value is provided, the value defaults to TRUE. Also see Restoring Business Application User Pass Through for Managed Attachments.

> **Note:**
>
> After changing the value of USERNAME_PASS_THROUGH in the database, stop and start the Imaging application in the Oracle WebLogic Server Administration Console.

5.4.3 Configuring Clustering for AXF in Imaging Managed Servers

For Oracle Application Extension Framework (AXF) in Imaging Managed Servers that run in a cluster, you need to configure a Java Object Cache (JOC) to be distributed to all of the Managed Servers. See "Configuring the Java Object Cache for AXF in Distributed Imaging Managed Servers" in *Installing and Configuring Oracle WebCenter Content*.

5.4.4 Configuring Autotask Locking

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

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

The setting is configured in the AXF_SOLUTION_ATTRIBUTES Table by inserting the following row:

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
BPEL.default	USE_AUTOTASK_LOCKING	TRUE

5.4.5 Updating the Task Payload Using XPATH

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

5.4.5.1 Example PL/SQL Procedure For Updating the Task Payload

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

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

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

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

BEGIN

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

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

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

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

    RETURN rtnCode;

END;
```

5.4.6 Targeting a Single Conversation With Multiple Window Instances Displayed

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

- If AXF_MULTINSTANCE is set to TRUE, each Oracle E-Business Suite window is treated as a separate conversation and a separate Imaging or AXF window is targeted.

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

5.4.7 Adding a Validation

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

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

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

1. Add the following row to the AXF_COMMANDS table:

Table 5-2   Example AXF_COMMANDS Table

SOLUTION_NAMESPACE	COMMAND_CLASS	COMMAND_NAMESPACE
InvoiceProcessing	oracle.imaging.axf.commands.bpel.Validate TaskCommand	ValidateTransactionID

2. Add the rows shown in Table 5-3 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 5-3   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]

Table 5-3 (Cont.) Example ValidateTask Command in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
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 5-4 AXF_ACTIONS Table

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

5.4.8 Deploying Custom Commands

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

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

5.4.9 Configuring Chained Commands and User Interface Components

Some AXF commands have parameter keys that specify what occurs after the command completes, allowing you to chain them. For example, Table 5-5 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 5-5 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

5.4.10 Configuring or Disabling a Dynamic Data Table

In the Task Viewer, you can display a table of dynamic data from the BPEL payload XML, such as General Ledger lines for an invoice processing solution, as shown in the

bottom tabs in Figure 1-2. You configure the table in the AXF_METADATA_BLOCKS Table and its data lines in the AXF_METADATA_ATTRIBUTES Table. For information on formatting XML data in the BPEL payload, see Formatting XML Data For a Dynamic Data Table; also see Task Viewer Web Tool.

The bottom row of Table 5-6 shows an example dynamic data table called *GL Lines* configured.

Table 5-6   Example AXF_METADATA_BLOCKS Table

BLOCK _ID	BLOCK_LOCATION	LABEL	DISPLAY _ORDER	TASK_FLOW _ID	SOLUTION_ NAMESPAC E	BLOCK _TYPE	METADATA _STYLE
1	LEFT_SIDEBAR	Summary	1	axf-taskviewer-tfd	InvoiceProce ssing	META DATA	null
2	LEFT_SIDEBAR	Comment s	2	axf-taskviewer-tfd	InvoiceProce ssing	COMM ENT	null
3	BOTTOM_PANEL	GL Lines	3	axf-taskviewer-tfd	InvoiceProce ssing	META DATA	TABLE

Table 5-7 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 5-7   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_LineNu mber	TRUE	0
2	9	Dist Account	DistributionLines_Distrib utionAccount	TRUE	1
2	10	Amount	DistributionLines_Amoun t	TRUE	2

5.4.10.1 Formatting XML Data For a Dynamic Data Table

After adding the table in the AXF_METADATA_BLOCKS Table and configuring its data lines in the AXF_METADATA_ATTRIBUTES Table, follow the guidelines below to ensure that the XML data in the BPEL payload is correctly formatted for display in the table.

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

> **Note:**
>
> All columns must display within the same direct parent element.

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

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

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

5.4.10.2 Hiding the Bottom Panel in the Task Viewer

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

Follow these steps to hide the bottom panel:

1. Using a tool such as Oracle SQL Developer, open a connection to the AXF database.

2. Run the following query, and note the BLOCK_IDs in use for the bottom panel:

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

3. Run the following command to delete lines from the AXF_METADATA_ATTRIBUTES table, replacing *BLOCK_ID* with the ID you identified in step 2:

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

4. Run the following command to delete lines from the AXF_METADATA_BLOCKS table.

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

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

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

Installing and configuring the Managed Attachments solution automatically disables the Oracle E-Business Suite attachments paperclip icon and functionality. To 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 AXF_CONFIGS Table (Oracle E-Business Suite).

   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 AXF_PROPERTIES Table (Oracle E-Business Suite).

Table 5-8   AXF_PROPERTIES Values For PaperClip Use

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

5.4.12 Resizing Oracle PeopleSoft Popup Solution Windows

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

- The default popup window size is 600 pixels high by 800 wide, set in the PS_AXF_PROPERTIES Table. When a size is set in this table, users cannot set and save popup window size themselves.

- To change window size, enter new values in the table, as shown in PS_AXF_PROPERTIES Table.

- To remove the popup window size (and allow individual users to change and save popup window size using standard browser controls), remove the WINDOW_HEIGHT and WINDOW_WIDTH rows from the PS_AXF_PROPERTIES Table.

6

Configuring the Managed Attachments Solution

This chapter describes how to configure the Managed Attachments solution for Oracle E-Business Suite, Oracle PeopleSoft, or another business application. It describes how to run configuration scripts, configure Content Server components, customize the solution, integrate Oracle AutoVue and Oracle WebCenter Enterprise Capture, and configure authentication and security.

> **Note:**
>
> For background information on the Managed Attachments solution, see About the Managed Attachments Solution.

This chapter covers the following topics:

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

6.1 System Requirements for the Managed Attachments Solution

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

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

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

> **Note:** Application Extension Framework (AXF) and Oracle WebCenter Imaging (IPM) are not available in Oracle WebCenter Application Adapter 12c (12.2.1.1) Release. You must use the Oracle WebCenter Content for the Managed Attachment Solution to work in the 12c environment.

Oracle WebCenter Content: Imaging 11g Release 1 (11.1.1 or higher)

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

> **Note:**
>
> The Managed Attachments solution is supported on WebSphere Application Server when Content Server is running on WebSphere Application Server and Application Extension Framework (Imaging Server) is running on Oracle WebLogic Server.

Oracle WebCenter Content Server 11g Release 1 (11.1.1 or higher)

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

- Metadata Only Search

- Database – Full Text Search

- Oracle Text – Full Text Search

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

Oracle E-Business Suite

- For Managed Attachments with Oracle E-Business Suite **Forms-based entities**, Managed Attachments requires that the EBS FND attachments framework be configured for the specific entity. Although Managed Attachments is an alternative attachments framework to FND attachments, Managed Attachments leverages the underlying FND attachments infrastructure.

- For Managed Attachments with Oracle E-Business **OAF-based entities**, Managed Attachments requires that the OAF page associated with the entity have a *Personalize Page* option with the *About this page* link. The OAF page should support

site level personalization so that the Managed Attachment button can be added manually. The *About this page* link obtains the OAF entity details, such as the primary key. OAF-based pages without this option are not supported for Managed Attachments.

6.2 Running Configuration Scripts to Enable Managed Attachments

This section describes running the configuration scripts listed in Table 6-1, following the steps described in the sections below. The first script configures AXF elements, and is required for all Managed Attachments configurations, including the Enterprise Application Adapter Framework. The remaining scripts apply to specific business applications as noted in Table 6-1.

- Configuring 12c AXF Elements for Managed Attachments

- Configuring 11g AXF Elements for Managed Attachments

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

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

- Enabling Managed Attachments for Oracle PeopleSoft

Table 6-1   SQL Scripts for Configuring Managed Attachments

SQL Script	Applies To	Description
AXF_ATTACHMENTS_CONFIG.sql (for 11*g* only)	- Oracle E-Business Suite Forms - Oracle E-Business Suite OAF - Oracle PeopleSoft - Enterprise Application Adapter Framework (see Configuring the Enterprise Application Adapter Framework)	AXF script that configures AXF elements such as solutions and commands. See Configuring AXF Elements for Managed Attachments. Run this script on the Oracle WebCenter Content middle tier as the user who owns the Imaging schema.
AXF_EBS_ATTACHMENTS_CONFIG.sql	Oracle E-Business Suite Forms only	Populates the Oracle E-Business Suite Forms tables used by AXF for Managed Attachment access via the Zoom menu within the Oracle E-Business Suite Forms application. See Enabling Managed Attachments for Oracle E-Business Suite Forms Applications. Run this script as the Oracle E-Business Suite plug-in schema user (AXF).
OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql	Oracle E-Business Suite OAF only	Provides a sample script that populates the Oracle E-Business Suite OAF tables used by AXF for Managed Attachments access. See Enabling Managed Attachments for Oracle E-Business Suite OAF Applications. Run this script as the Oracle E-Business Suite plug-in schema user (AXF).

Table 6-1 (Cont.) SQL Scripts for Configuring Managed Attachments

SQL Script	Applies To	Description
AXF_PSFT_ATTACHMENTS_CONFIG.sql	Oracle PeopleSoft only	Provides a sample script that populates the PeopleSoft tables used by AXF for Managed Attachments access. See Enabling Managed Attachments for Oracle PeopleSoft. Run this script as an Oracle PeopleSoft user with administrative privileges.

6.2.1 Configuring 12c Elements for Managed Attachments

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

   - For Oracle E-Business Suite Forms:

     MW_HOME/wccontent/ucm/Distribution/EBSIntegration/R11/

     MW_HOME/wccontent/ucm/Distribution/EBSIntegration/R12/

   - For Oracle E-Business Suite OAF:

     MW_HOME/wccontent/ucm/Distribution/EBSIntegration/oaf/

   - For Oracle PeopleSoft:

     MW_HOME/wccontent/ucm/Distribution/PSFTIntegration/

2. Modify parameters in the **config.cfg** script to match your environment.

   a. The MA_SEARCH_URL invokes the Content Server attachments framework search, as described in AXF_SOLUTION_PARAMETERS Table.

   b. Configuring MA_SEARCH_URL is optional. The default URL depends on the business application component that is enabled in the Content Server. If AppAdapterEBS is enabled, the MA_SEARCH_URL uses Content Server profile as EBSProfile and the template as EBS_LIST. If AppAdapterPSFT is enabled, the MA_SEARCH_URL uses Content Server profile as PSFTProfile and the template as PSFT_LIST.

   c. If you want to use a custom template, you can modify or add MA_SEARCH_URL parameter in config.cfg. You must change the system name and port for the MA_SEARCH_URL parameter to match your Content Server set up. The port number must correspond to that of the web server port of the Content Server.

   d. Change the [Content ServerProfile] and [ResultTemplate] values in the MA_SEARCH_URL parameter for your configuration.

      - For details about customizing profiles, see Customizing the Content Server Profile Used.

      - For details about customizing results templates, see Changing the Result Template.

6.2.2 Configuring 11g AXF Elements for Managed Attachments

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

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

   - For Oracle E-Business Suite Forms:

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

     MW_HOME/ECM_HOME/axf/adapters/ebs/R12/

   - For Oracle E-Business Suite OAF:

     MW_HOME/ECM_HOME/axf/adapters/ebs/oaf/

   - For Oracle PeopleSoft:

     MW_HOME/ECM_HOME/axf/adapters/psft/

   - For Enterprise Application Adapter Framework:

     MW_HOME/ECM_HOME/axf/adapters/framework/

2. Modify parameters in the **AXF_ATTACHMENTS_CONFIG.sql** script to match your environment.

   a. Change the system name and port for the RIDC_CONNECTION_STR parameter to match your Content Server installation. The port number should correspond to that of the Content Server's Intradoc server port that receives RIDC calls. (To find the value for the Content Server port, locate the IntradocServerPort config value in config.cfg.)

   b. Change the system name and port for the UCM_CONNECTION_STR parameter to match your Content Server installation. The port number should correspond to that of the Content Server's web server port.

   c. Change the [Content ServerProfile] and [ResultTemplate] values in the UCM_CONNECTION_STR parameter for your configuration. These values are used in the Managed Attachments URL that invokes the Content Server attachments framework search, as described in AXF_SOLUTION_PARAMETERS Table.

      - Profile values include: *EBSProfile* (default), *PSFTProfile*, and *UniversalProfile* (for the Enterprise Application Adapter Framework). For details about customizing profiles, see Customizing the Content Server Profile Used.

      - Result template values include: *EBS_LIST* (adapter_list_results_template.htm), *PSFT_LIST* (ps_adapter_list_results_template.htm), and *Universal_LIST* (universal_adapter_list_results_template.htm, for the Enterprise Application Adapter Framework). For details about customizing results templates, see Changing the Result Template.

3. On the Oracle WebCenter Content middle tier, log in to the AXF Configuration Database *as the user who owns the Imaging schema* and run the AXF_ATTACHMENTS_CONFIG.sql script.

To execute the script, enter:

```
@AXF_ATTACHMENTS_CONFIG.sql
```

> **Note:**
>
> For information about creating schemas before or after Oracle WebCenter Content installation, see *Installing and Configuring Oracle WebCenter Content*.

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

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

1. Locate the script corresponding to your release in the folder specified below.

For 12*c*

```
MW_HOME/wccontent/ucm/Distribution/EBSIntegration/R11/
```

```
MW_HOME/wccontent/ucm/Distribution/EBSIntegration/R12/
```

For 11*g*

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

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

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

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

To execute the script, enter:

```
@AXF_EBS_ATTACHMENTS_CONFIG.sql
```

4. Open the AXF_FND_MAP table and delete unneeded rows.

See AXF_FND_MAP Table (Oracle E-Business Suite Forms). The script inserts multiple rows, allowing you to keep the rows that apply to your particular configuration.

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

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

- Populating the database via the OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql script, which populates the tables with values for certain sample OAF pages, as described in Populating the OAF AXF Database Tables With Sample Key Values.

- Modify the sample key values for your OAF pages, using values you identify in Identifying Key Values for Your OAF Pages.

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

6.2.4.1 Populating the OAF AXF Database Tables With Sample Key Values

Table 6-2 lists the sample key values populated by the OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql script for the specified OAF pages.

- The OAF page location is used as the AXF_OAF_PAGE value in the OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF). See the example table in OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF).

- The following key values are used in the OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF). See the example table in OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF).

  - Entity (businessObjectType); for example, REQ_HEADERS

  - Primary Key (businessObjectKey1); for example, REQUISITION_HEADER_ID

  - View Object (businessObjectValue1); for example, ReqHeadersVO

  - View Attribute (businessObjectValue1 or labelValue1); for example, RequisitionHeaderId

---

Note:

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

Table 6-2   OAF Pages Configured By Sample OAF_AXF_EBS_ATTACHMENTS_CONFIG.SQL Script

OAF Page	Navigation	Sample Key Values
iProcurement Requisitions	Choose iProcurement, then the Requisitions tab, then click **Requisition Description**	OAF Page = /oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG • Entity = REQ_HEADERS • Primary Key = REQUISITION_HEADER_ID • View Object = ReqHeadersVO • View Attribute = RequisitionHeaderId

Table 6-2   (Cont.) OAF Pages Configured By Sample OAF_AXF_EBS_ATTACHMENTS_CONFIG.SQL Script

OAF Page	Navigation	Sample Key Values
iProcurement Purchase Orders	Choose iProcurement, then the Requisitions tab, then click **Order Number**	OAF Page = /oracle/apps/pos/ changeorder/webui/PosViewPOPG • Entity = PO_HEADERS • Primary Key = PO_HEADER_ID • View Object = PosViewHeadersVO • View Attribute = PO_HEADER_ID
Purchase Orders	Choose Purchasing, then Buyer Work Center, then Orders, then click the **Order** number	OAF Page = /oracle/apps/po/document/ order/webui/OrderPG • Entity = PO_HEADERS_MERGE_V • Primary Key = PO_HEADER_ID • View Object = PoHeaderMergeVO • View Attribute = PoHeaderId
Suppliers	Choose Purchasing, then Supply Base, then Suppliers. Search by clicking **Go**, then click the **Update** icon	OAF Page = /oracle/apps/pos/supplier/ webui/QuickUpdatePG • Entity = PO_VENDORS • Primary Key = VENDOR_ID • View Object = SupplierVO • View Attribute = VendorId
Request for Quote (RFQ) Header	Choose Purchasing, then Buyer Work Center, then Negotiations, then RFQ, then **Header**	OAF Page = /oracle/apps/pon/ negotiation/creation/webui/ ponDefineHdrPG • Entity = PON_AUCTION_HEADERS_ALL • Primary Key = AUCTION_HEADER_ID • View Object = AuctionHeadersAllVO • View Attribute = AuctionHeaderId
Request for Quote (RFQ) Line	Choose Purchasing, then Buyer Work Center, then Negotiations, then RFQ, then **Lines**. Click the **GO** button.	OAF Page = /oracle/apps/pon/ negotiation/creation/webui/ ponItemHeaderPG • Entity = PON_AUCTION_ITEM_PRICES_ALL • Primary Key = AUCTION_HEADER_ID & LINE_NUMBER • View Object = AuctionItemPricesAllVO • View Attributes = AuctionHeaderId & LineNumber

Table 6-2   (Cont.) OAF Pages Configured By Sample OAF_AXF_EBS_ATTACHMENTS_CONFIG.SQL Script

OAF Page	Navigation	Sample Key Values
Projects	Choose Project Manager, then Projects: Delivery, then Project List. Click Project name, then the **Attachments** tab	OAF Page = /oracle/apps/pa/project/webui/ProjAttachmentPG • Entity = PA_PROJECTS • Primary Key = PROJECT_ID • View Object = ProjAttachmentsVO • View Attribute = PROJECT_ID

Follow these steps to run the script.

1. Do one of the following:

   • For 12*c*, locate the OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql script in this folder:

     MW_HOME/wccontent/ucm/Distribution/EBSIntegration/oaf/

   • For 11*g*, locate the OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql script in this folder:

     MW_HOME/ECM_HOME/axf/adapters/ebs/oaf/

2. Log in to the Oracle E-Business Suite database *as the Oracle E-Business Suite plug-in schema user (AXF)*.

3. In the script, replace the host name and port to match your Imaging server host name and port.

4. Run the OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql script.

   To execute the script, enter:

   `@OAF_AXF_EBS_ATTACHMENTS_CONFIG.sql`

6.2.4.2 Identifying Key Values for Your OAF Pages

This section provides steps for identifying the primary field(s) to link the OAF page with Managed Attachments functionality, and identifying the page name and fields to use as labels.

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

• With Both Attachment Information and Primary Keys Present

• With Attachment Information Present_ But Not Primary Keys

• With Neither Attachment Information Nor Primary Keys Present

6.2.4.2.1 With Both Attachment Information and Primary Keys Present

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

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

   For example, navigate to Employee Self Service, then the Appraisals OAF page, and click the **About this page** link.

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

   /oracle/apps/per/selfservice/appraisals/webui/EmpMyAppraisalsPG

3. Search the XML file for an **<oa:attachment>** XML tag that contains view object name and primary key details for the business entity associated with the view.

   For example, the following <oa:attachment> section provides these key values, highlighted in bold characters.

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

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

   In the example, the following values were located:

   - Entity = **APPRAISEE_JOURNAL**

   - Primary Key = **APPRAISAL_ID** and **APPRAISEE_PERSON_ID**

   - View Object = **EmpMyAppraisalsInProgressVO**

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

6.2.4.2.2 With Attachment Information Present, But Not Primary Keys

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

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

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

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

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

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

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

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

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

   The following information is known:

   - Entity = **REQ_HEADERS**

   - View Object = **ReqHeaderVO**

4. Based on the primary key column, determine its corresponding view attribute.

   a. Run the FND_DOCUMENT_ENTITIES query for the REQ_HEADERS entity.

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

   The query returns the primary key column name: REQ_HEADER_ID.

   b. Click the **About this page** link, select **View Object** and find the corresponding attribute name, which matches the column name: RequisitionHeaderId.

      - Primary Key = **REQUISITION_HEADER_ID**

      - View Attribute = **RequisitionHeaderId**

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

   In the example, the following values were located:

   - Entity = **REQ_HEADERS**

   - Primary Key = **REQUISITION_HEADER_ID**

   - View Object = **ReqHeadersVO**

   - View Attribute = **RequisitionHeaderId**

6.2.4.2.3 With Neither Attachment Information Nor Primary Keys Present

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

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

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

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

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

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

2. Select **Page Definition**, then click the **Expand All** link.

3. Determine the view object.

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

Figure 6-1   Determining the View Object
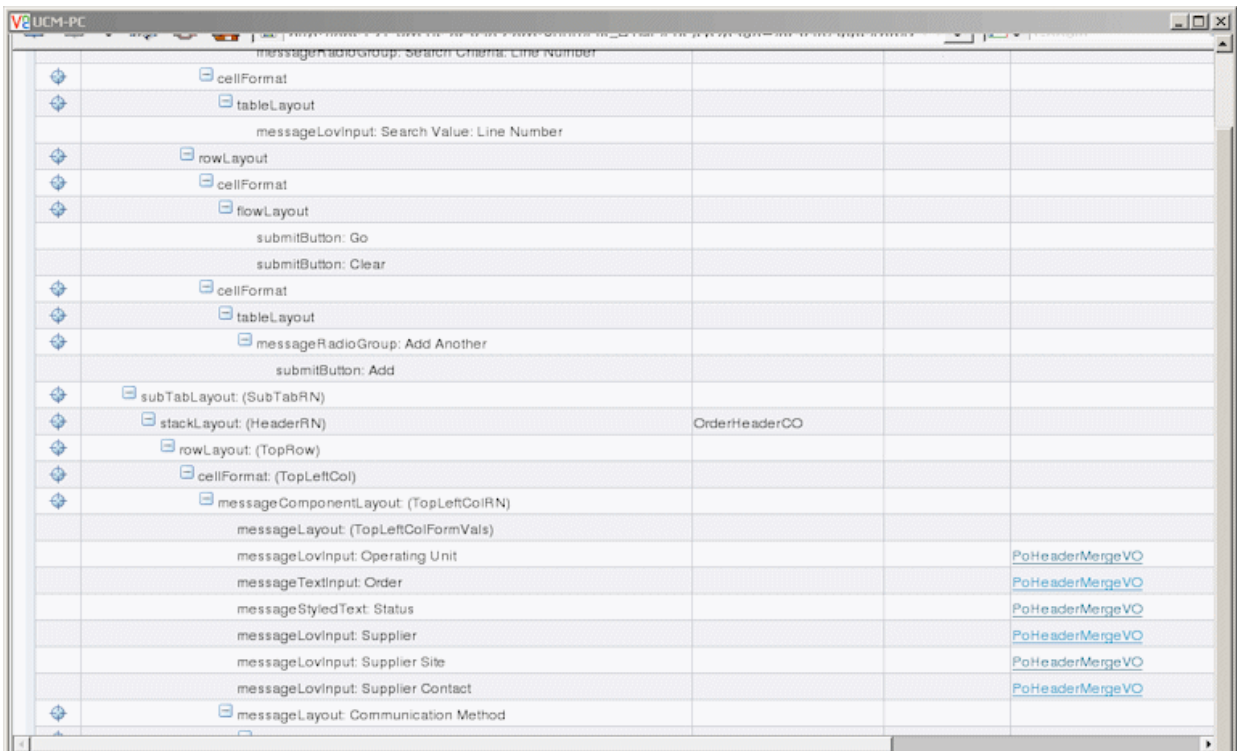
4. Determine the entity (driving table).

   Click the view object link to display details for the view object. For example, the entity (driving table) for the PoHeaderMergerVO view object is **PO_HEADERS_MERGE_V**.

5. Determine the entity's primary keys.

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

```
http://etrm.oracle.com/pls/etrm/etrm_search.search
```

    b. Enter a search that includes the entity name to obtain the table details. For example, for the PO_HEADERS_MERGE_V entity, enter:

```
http://etrm.oracle.com/pls/etrm/etrm_pnav.show_object?
c_name=PO_HEADERS_MERGE_V&c_owner=APPS&c_type=VIEW
```

    c. From the search results, display the view or table details. The example shown in Figure 6-2 provides view details.

Figure 6-2 Displaying View Details
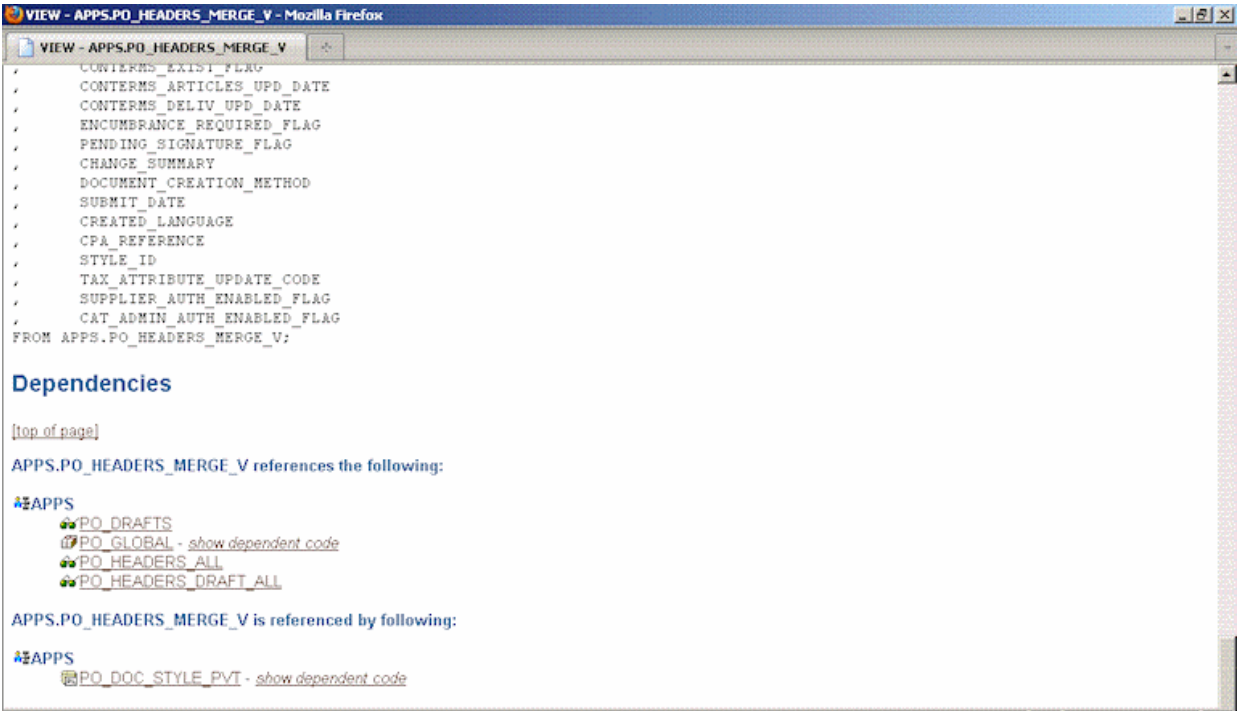
    d. Select the table that best describes the selected view (in this example, **PO_HEADERS_ALL**).

    e. Figure 6-3 shows the primary key details associated with the table. Determine its primary key (in this example, **PO_HEADER_ID**).

Figure 6-3   Displaying Table Details
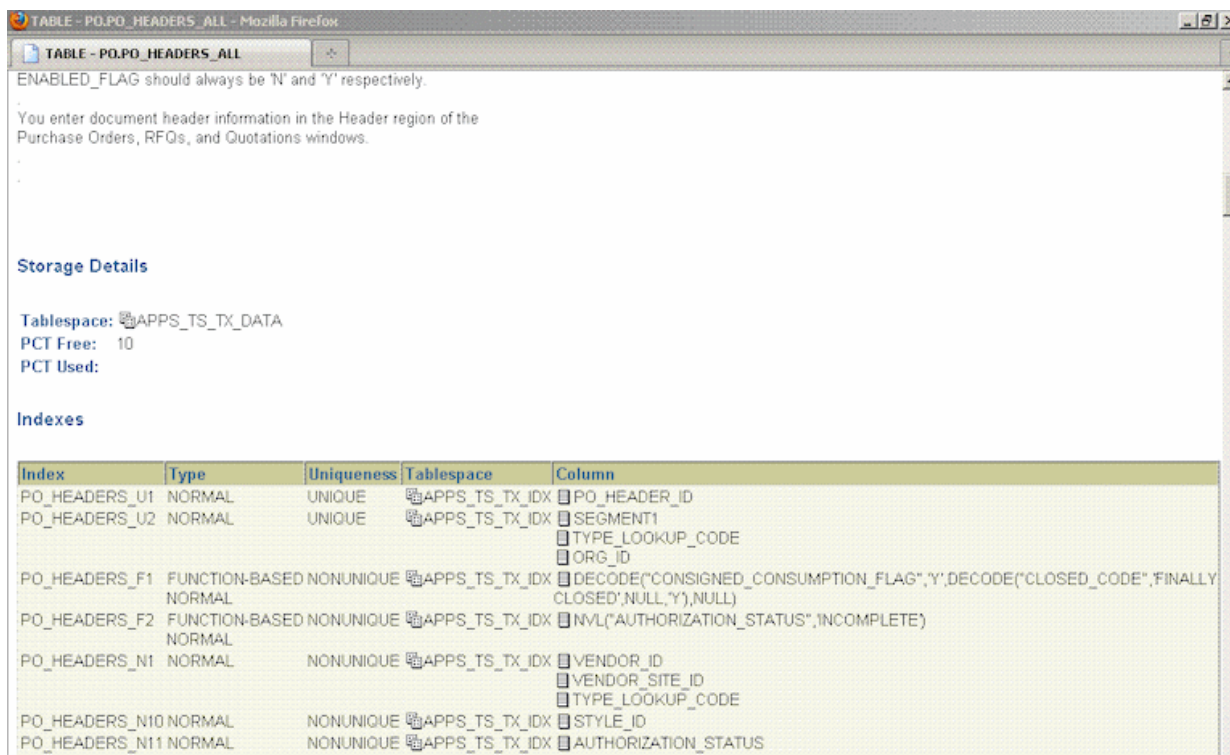
6. Based on the primary key, obtain its corresponding view attribute.

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

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

    In the example, the following values were located:

    *   Entity = **PO_HEADERS_MERGE_V**

    *   Primary Key = **PO_HEADER_ID**

    *   View Object = **PoHeaderMergeVO**

    *   View Attribute = **PoHeaderId**

6.2.4.3 Configuring Attachments to Display on Workflow Pages

This section provides steps to configure attachments to display on workflow pages. After the configuration, you can view attachments on workflow pages.

Perform the following steps to configure the attachments:

1. Open the Workflow Notification OAF page and add the Managed Attachment button using personalization. For more information, see Personalizing OAF Pages to Add Managed Attachments.

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

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

2. As an AXF user, execute the OAF_AXF_CREATE_WORKFLOW_TABLES.sql script from the following Oracle E-Business Suite location:

For 12*c*

MW_HOME/wccontent/ucm/Distribution/EBSIntegration/oaf/

For 11*g*

*MW_HOME/ECM_HOME*axf/adapters/ebs/oaf/

To execute the script, enter:

```
@OAF_AXF_CREATE_WORKFLOW_TABLES.sql
```

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

Table 6-3   Column Description for OAF_AXF_WORKFLOWS Table

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

4. In the OAF_AXF_CMD_PARAMS table, update the database entries for the Workflow Notification page by replacing the name of the application with the application name for your instance.

> **Note:**
>
> Ensure that other values in the database table are retained as DUMMY.

Once you are done with the updates, the OAF_AXF_CMD_PARAMS table must display the values as shown in the following table:

Table 6-4   Example OAF_AXF_CMD_PARAMS Table

Table 6-4 (Cont.) Example OAF_AXF_CMD_PARAMS Table

AXF_PARAM_NAME	AXF_DATASOURCE	AXF_VIEW_OBJ_ NAME	AXF_ATTRIBUTE_ NAME	AXF_CONSTANT_ VALUE
application	CONSTANT	(null)	(null)	EBS_instanceA
businessObjectType	CONSTANT	(null)	(null)	DUMMY
businessObjectKey1	CONSTANT	(null)	(null)	DUMMY
businessObjectValue1	DATA	DUMMY	DUMMY	(null)

5. Restart the Oracle E-Business Suite instance.

6.2.5 Enabling Managed Attachments for Oracle PeopleSoft

The main configuration steps include:

- Configuring each Oracle PeopleSoft entity's primary key values in the Oracle PeopleSoft AXF database tables, described in Oracle PeopleSoft Tables For the Managed Attachments Solution. The AXF_PSFT_ATTACHMENTS_CONFIG.sql script is provided as a starting point. It contains sample values for PeopleSoft entities such as work order, sales contract, and purchase requisition. You can modify the sample key values to reflect your Oracle PeopleSoft pages, using the primary keys you noted in Placing AXF Components on Oracle PeopleSoft Pages.

- Specifying an Oracle PeopleSoft role to grant users permission.

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

1. Locate the AXF_PSFT_ATTACHMENTS_CONFIG.sql sample script in this folder:

   For 12*c*

   MW_HOME/wccontent/ucm/Distribution/PSFTIntegration/

   For 11*g*

   MW_HOME/ECM_HOME/axf/adapters/psft/

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

3. Modify the sample script to include the values you identified for your Oracle PeopleSoft entities in Placing AXF Components on Oracle PeopleSoft Pages, then run the script.

   To execute the script, enter:

   `@AXF_PSFT_ATTACHMENTS_CONFIG.sql`

4. Specify an Oracle PeopleSoft role in the PS_AXF_COMMANDS Table to grant users permission to use a specified user interface item. For example, you might change the `Employee` value to **PeopleSoft User** or an appropriate Oracle PeopleSoft user role. See PS_AXF_COMMANDS Table.

6.3 Configuring the Content Server Components

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

> **Note:**
>
> To configure the Managed Attachments solution for another business application, see the instructions provided in Configuring the Enterprise Application Adapter Framework.

- Enabling Content Server Components
- Verifying Required Content Server Components and Configuration
- Testing the Managed Attachments Solution

6.3.1 Enabling Content Server Components

Table 6-5 lists Content Server components for the Managed Attachments solution.

Table 6-5 Content Server Components for Managed Attachments

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

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

1. If upgrading from an earlier installation of the adapter, back up previous customizations, as described in Backing Up Customizations Before Upgrading.

2. Log in to Content Server as an administrator.

3. Choose **Admin Server** from the Administration menu.

   The Component Manager page displays.

4. Choose **Integration**.

   The Content Server components described in Table 6-5 are listed as Integration options.

5. Select the **AppAdapterCore** component to enable it.

6. Select the appropriate business application component:

   - **AppAdapterEBS.zip** for Oracle E-Business Suite

   - **AppAdapterPSFT.zip** for Oracle PeopleSoft

- **AppAdapterUniversal.zip** for other business applications, as described in Configuring the Enterprise Application Adapter Framework.

7. Click **Update**.

8. Restart Content Server.

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

6.3.1.1 Backing Up Customizations Before Upgrading

If upgrading from a previous version of the adapter (Managed Attachments solution), perform these additional upgrade steps if needed before installing Content Server components, as indicated in step 1 in Enabling Content Server Components.

1. Back up Content Server rule and profile customizations.

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

2. Back up the config.cfg file.

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

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

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

6.3.2 Verifying Required Content Server Components and Configuration

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

1. Log in to Content Server as an administrator.

2. Click the **Configuration for [Instance]** link in the content server Administration tray.

3. In the Features And Components section, click **Enabled Component Details**.

4. From the details shown, verify that the following components are enabled. If a component is not listed, install and enable it according to its installation documentation.

   The following components must be at or above the version level included with the installed Content Server 11*g* release:

   - YahooUserInterfaceLibrary

   - CheckoutAndOpenInNative

   - CoreWebdav

- NativeOsUtils

- ContentFolios

5. In the User Admin applet, ensure that the roles below have the correct access level to the corresponding security groups.

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

   - AFAdmin: AFDocuments (RWDA) and no permissions on any other groups

   - AFDelete: AFDocuments (RWD) and no permissions on any other groups

   - AFWrite: AFDocuments (RW) and no permissions on any other groups

   - AFRead: AFDocuments (R) and no permissions on any other groups

6.3.3 Testing the Managed Attachments Solution

Test the configuration for your selected business application by following the steps listed in the *Using the Application Adapters for Oracle WebCenter*.

6.4 Configuring the Enterprise Application Adapter Framework

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

In Configuring AXF Elements for Managed Attachments, you ran the AXF_ATTACHMENTS_CONFIG.sql script, which configured AXF tables for the UCM_Managed_Attachments solution. Follow the steps listed in these sections to configure the business application/Managed Attachments integration.

- Deploying the AppAdapterUniversal Component on Content Server

- Configuring the SOAP Service Call and Managed Attachments URL Display

6.4.1 Deploying the AppAdapterUniversal Component on Content Server

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

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

6.4.1.1 Optionally Renaming Component Files

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

1. Back up the AppAdapterUniversal.zip file.

The zip file is located at:

ECM_HOME/ucm/Distribution/AppAdapter

2. Unzip the AppAdapterUniversal.zip file.

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

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

4. Locate the universal_AppAdapter_strings.htm file and replace all occurrences of the string Application with your business application long name (for example, replace Application with ExampleBusinessApp).

5. Search each file for instances of the string Universal and replace them with the name you specified in step 3, matching case (for example, BIZAPP).

6. Search each file for instances of the string universal and replace them with your business application's lowercase name (for example, bizapp).

7. Zip the files into the newly named file (for example, AppAdapterBuzzApp.zip).

6.4.1.2 Optionally Customizing the Framework Layout, Images, and Profile

- To change the look-and-feel of the result template file, customize the result template file (originally named Universal_LIST, universal_adapter_list_results_template.htm). See Changing the Result Template.

- To customize images, replace the images in the resources\publish\images folder.

- To customize the Content Server profile used, change the UniversalProfile file. See Customizing the Content Server Profile Used.

6.4.2 Configuring the SOAP Service Call and Managed Attachments URL Display

Follow the steps in this section to configure the business application to call AXF and receive the Managed Attachments URL.

1. Configure the business application to provide an application entity context link, button, or menu item to call AXF via the SOAP service and to pass the Managed Attachments attributes listed in Table 6-6.

   - Example provides a sample SOAP XML file for calling AXF and Table 6-7 describes fields in the AXFRequest.

   - Example provides a sample AXFResponse and Table 6-8 describes fields in the AXFResponse.

     The SOAP response contains the Managed Attachments page's URL. If an error occurs during the grant call, an AXF Error Page URL is returned. For 11*g*, the WSDL URL is:

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

   For 12*c*, the WSDL URL is:

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

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

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

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

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

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

Table 6-7 AXFRequest Attributes

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

Table 6-7   (Cont.) AXFRequest Attributes

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

Following is an example of AXFResponse:

```
<S:Envelope xmlns:S="http://schemas.xmlsoap.org/soap/envelope/">
      <S:Body>
            <ns2:executeResponse xmlns:ns2="http://service.axf.imaging.oracle/">
                  <response>
                        <conversationId>b80ce79b-6b46-4302-ab59-ddb91e30692b</
conversationId>
                        <responseCommands>
                              <command>OPEN_BROWSER</command>
                              <value>http://imaging.example.com:16200/cs/idcplg/-
UniversalProfile?
IdcService=GET_SEARCH_RESULTS_FORCELOGIN&ResultTemplate=Universal_LIST&afGuid=0000
0132-b540-810e-63f4-00e94577f990</value>
                        </responseCommands>
                  </response>
            </ns2:executeResponse>
      </S:Body>
</S:Envelope>
```

Table 6-8   AXFResponse Attributes

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

2. Display the URL returned by the AXF SOAP call in a new browser window or iFrame.

3. Optionally, configure SOAP over SSL security for the call, as described in Securing Communications Through SSL (Other Business Applications).

6.4.2.1 Securing Communications Through SSL (Other Business Applications)

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

1. Install web server-based digital certificates.

   In your business application documentation, refer to information about configuring certificates on the business application's web server environment.

2. Enable SSL on Oracle WebLogic Server on the Oracle WebCenter Content side.

   For information, see "Configuring SSL for Oracle WebCenter Content Applications" in *Installing and Configuring Oracle WebCenter Content*.

3. Exchange server certificates between the web servers.

   For information, see "exportKeyStoreObject" in *Administering Oracle Fusion Middleware*.

6.5 Configuring Managed Attachments Settings

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

Settings Order of Precedence

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

- role specific (highest)

- business context specific

- application entity specific

- application instance specific

- global (lowest)

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

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

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

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

Figure 6-4   Configure Managed Attachments Page

2. Edit **Global Configuration** variables if needed, and click **Update**.

   Use these settings to configure Content Server environment variables for the adapter, as described in Working With Global Configuration Variables and Customizing the Managed Attachments Solution.

3. Add, edit, or delete **Attachment Relationship Attributes**.

   Use this area to configure custom relationships between attached documents and business entities, as described in Configuring Attachment Relationship Attributes. For example, enable users to print document attachments for certain business entities but not for others.

4. Add, edit, or delete **Entity Specific Configurations**.

Use this area to override global settings for a specified business entity or application, as described in Customizing Settings at Business Entity or Application Levels. For example, override a global setting that displays the From Repository button and hide the button for a specified business entity.

5. Add, edit, or delete **Role Specific Configurations** or **Business Context Specific Configurations**.

Use these areas to configure which Managed Attachments features and buttons are displayed and available, based on either:

- the user's assigned role, as described in Customizing Settings Based on Users' Assigned Roles. For example, configure all users granted a read role to have read-only Managed Attachments access.

- the user's business application context, as described in Customizing Settings Based on Users' Business Context. For example, display and enable the Scan button only when the businessObjectContext passed from the business application=ScanContext.

6.5.1 Working With Global Configuration Variables

Use the **Global Configuration** section of the Configure Managed Attachments page to change global environment variables from their default values.

Global configuration variables are grouped on the page as follows:

- Check-In variables (Table 6-9)

- Scanning variables (Table 6-10)

- Button variables (Table 6-11)

- General variables (Table 6-12)

Table 6-9   Check-in Variables

Field	Default Value	Description
AppAdapterCheckinPrivate	true	If set to true, the **Share Document** field on the Content Check-In and Scan Document pages is deselected by default. This setting configures documents for private check-in, although users can select the field for shared check-in. See Configuring Document Security.
AppAdapterExtraCheckinMetadata	null	Specify a comma-separated list of parameters to optionally pass on the AXF grant call to be prepopulated on the Checkin page (leaving no space after a comma before the next value). For more information, see Passing Extra Metadata Values From a Business Application to Content Server.

Table 6-10   Scanning Variables

Table 6-10　(Cont.) Scanning Variables

Field	Default Value	Description
AppAdapterExtraScanMetadata	null	Specify a comma-separated list of parameters to optionally pass on the AXF grant call to be prepopulated on the Scan Document page (leaving no space after a comma before the next value). For more information, see Passing Extra Metadata Values From a Business Application to Content Server.

Table 6-10   (Cont.) Scanning Variables

Field	Default Value	Description
ODDCURLPath		Enables document attachment scanning and importing through Oracle WebCenter Enterprise Capture or Oracle Distributed Document Capture. For configuration instructions, see Configuring Oracle WebCenter Enterprise Capture and Configuring Oracle Distributed Document Capture.
		For Oracle Webcenter Enterprise Capture 12c integration
		This entry specifies the web address to Oracle WebCenter Enterprise Capture:
		Format:
		`ODDCURLPath`
		`oraclecapture://`*`CaptureWorkspace`*`=CaptureWorkspace&`*`CaptureDriver`*`=CAPTURE_IMPORT_DRIVER&`*`CaptureSource`*`=Import Source`
		Example:
		`ODDCURLPath`
		`oraclecapture://CaptureWorkspace=EBS/PSFT&CaptureDriver=CAPTURE_IMPORT_DRIVER&CaptureSource=Import%20Source`
		For Oracle WebCenter Enterprise Capture (11g) integration
		This entry specifies the web address to Oracle WebCenter Enterprise Capture:
		Format:
		`ODDCURLPath`
		`http://`*`capture_host:port`*`/dc-client`
		Example:
		`ODDCURLPath`
		`http://capture1:16400/dc-client`
		For Oracle Distributed Document Capture (10g) integration
		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`

Table 6-10 (Cont.) Scanning Variables

Field	Default Value	Description
ODDCScanAction	1	Use to configure document attachment scanning and importing through Oracle Distributed Document Capture (10g), as described in Configuring Oracle Distributed Document Capture. In this entry, specify the scan action to perform, where: • 1 = Scan • 2 = Import

Table 6-11 Button Variables

Field	Default Value	Description
AppAdapterDetachBtnVisible	true	Specifies if the **Detach** button displays on the Managed Attachments page.
AppAdapterRefreshBtnVisible	true	Specifies if the **Refresh** button displays on the Managed Attachments page.
AppAdapterCheckinNewBtnVisible	true	Specifies if the **New** button displays on the Managed Attachments page.
AppAdapterRepoAttachBtnVisible	true	Specifies if the **From Repository** button displays on the Managed Attachments page.
AppAdapterConfigureBtnVisible	true	Specifies if the **Configure** button displays on the Managed Attachments page.
AppAdapterSearchWithinBtnVisible	true	Specifies if the **Search Within** button that enables users to search within the attachments list displays on the Managed Attachments page.
AppAdapterScanBtnVisible	false	Specifies if the **Scan** button displays on the Managed Attachments page.
AppAdapterHelpIconVisible	true	Specifies if the **Help** icon displays on the Managed Attachments page.
AppAdapterAutoVueIconVisible	false	Specifies if the **AutoVue** icon displays in the Actions column on the Managed Attachments page. For more information, see Configuring Oracle AutoVue Document Viewing.

Table 6-12 General Variables

Field	Default Value	Description
AppAdapterGrantPrivilege	W	Specifies the access level to grant to all users if the AF_GRANT_ACCESS service's *dPrivilege* parameter is not specified. Valid values include: R (read), W (write), D (delete) and A (admin). For more information, see AFGrants Table.

Table 6-12 (Cont.) General Variables

Field	Default Value	Description
AppAdapterGrantHours	0.5	Specifies the time in hours for which the user session remains available. The solution uses this value only if the AF_GRANT_ACCESS service's *numHours* parameter is not specified. Valid values are numbers with optional decimal. For more information, see AFGrants Table.
AppAdapterMaxGrantHours	24	Specifies the maximum time in hours to grant the user access to the Managed Attachments page. Valid values are numbers with decimal. For example, suppose AppAdapterGrantHours is set to 1 hour and AppAdapterMaxGrantHours is set to 24 hours. If the user accesses the Managed Attachments page from the business application at 12:00 (noon), dExpirationDate in the 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 page up to 24 hours if at any given time the gap between two requests is less than one hour. Regardless, when 24 hours is reached, access is denied. This setting prevents a user from keeping access open for very long periods of time without user action, and prevents access from expiring if a user is actively using the system.
AppAdapterKeyDelimiter	|	Specifies the internal delimiter used to concatenate primary keys and values passed as parameters. For more information, see AFGrants Table. The default delimiter is a | (pipe) character.

AutoVueURLPath		Enables AutoVue viewing of attached documents through Oracle AutoVue Web Version. For configuration instructions, see Configuring Oracle AutoVue Document Viewing. This entry specifies the AutoVue servlet to run.
		
		Format:
		`AutoVueURLPath`
		`http://ucm_host name:port/web_root/idcplg?IdcService=VIEW_IN_AUTOVUE`
		Example:
		`AutoVueURLPath`
		`http://ucm1.example.com/cs/idcplg?IdcService=VIEW_IN_AUTOVUE`

AppAdapterFrameLessWindowRequired	true	Specifies if standard browser menu options are hidden in browser windows that open from the attachments display (true) or displayed (false).

Table 6-12   (Cont.) General Variables

Field	Default Value	Description
AppAdapterViewUnreleased	false	If set to true, displays documents in the attachments list before they are released, without links to the web files.
ResultCount	20	Specifies the number of attachments to display per page on the Managed Attachments page. If the number of results exceeds ResultCount, previous and next page controls display on the page.
SearchEngineName	DATABASE.META DATA.AFLIST	Specifies the search engine to use. You can choose: • DATABASE.METADATA.AFLIST.STANDARD: Displays released documents only. • DATABASE.METADATA.AFLIST: Displays released and unreleased documents. **Note:** If Database Full Text Search or Oracle Full Text Search is configured in Content Server, then the specified search engine is used only when users click the **From Repository** button.

6.5.2 Alternatively Editing Settings in the Preferences.hda File

The Managed Attachments Administration settings are stored in a configuration file called preferences.hda.

You can edit settings using the Managed Attachments Administration interface, as described in Configuring Managed Attachments Settings. Alternatively, you can follow the steps in this section to directly modify the preferences.hda file.

> **Note:**
>
> You must restart the Content Server after modifying the preferences.hda file.
>
> You can add or delete application and business entity configuration entries as needed, but do NOT delete global configuration entries from the preferences.hda file.

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

UCM_Instance/data/appadapter

This file provides Managed Attachments configuration options in the ResultSet sections described in the following table:

Table 6-13   ResultSet Sections in Preferences.hda File

Table 6-13 (Cont.) ResultSet Sections in Preferences.hda File

Section	Description
AFEnvironmentConfiguration	Use to configure Content Server environment variables for the adapter.
	For more information, see Table 6-9 and Customizing the Managed Attachments Solution.
AFRelationshipAttributes	Use to configure custom relationships between attached documents and business entities.
	For more information, see Configuring Attachment 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 Configuring Revision-Specific Mode.

2. Scroll to the AFEnvironmentConfiguration ResultSet section, and edit the entries described in Working With Global Configuration Variables as needed. For more information about customizing the Managed Attachments solution using these variables, see Customizing the Managed Attachments Solution.

6.6 Customizing the Managed Attachments Solution

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

- Customizing Settings Based on Users' Assigned Responsibility ID

- Customizing Settings Based on Users' Assigned Roles

- Customizing Settings Based on Users' Business Context

- Customizing Settings at Business Entity or Application Levels

- Customizing the Document Type Used For New Attachments

- Customizing the Content Server Profile Used

- Hiding or Displaying Managed Attachments Page Buttons

- Customizing Scanning

- Customizing Managed Attachments Page Images

- Customizing the Style Sheet (CSS) Used

- Configuring Attachment Relationship Attributes

- Configuring Revision-Specific Mode

- Changing the Result Count

- Changing the Result Template

- Setting Default Columns

- Enabling the Paperclip with Attachments (Oracle E-Business Suite Forms Only)

- Passing Extra Metadata Values From a Business Application to Content Server

- Resizing Oracle PeopleSoft Popup Solution Windows

- Configuring an Entity's Private Attachments Security Group

- Restoring Business Application User Pass Through for Managed Attachments

- Renaming the Managed Attachments Button For OAF Entities

6.6.1 Customizing Settings Based on Users' Assigned Responsibility ID

You can customize settings based on user responsibility ID using Managed Attachments Administration. (For general information, see Configuring Managed Attachments Settings.) This enables you to retain a global value while customizing settings for specific user responsibility ID. For example, you might use this feature to limit Managed Attachments access to read only for E-Business Suite users having a particular responsibility ID.

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

   The Configure Managed Attachments page displays.

2. Scroll to the **Responsibility Specific Configuration** settings in the lower portion of the page and click **Add**.

3. In the Add Responsibility Specific Configuration page shown in Figure 6-5, enter fields to customize a Managed Attachments variable based on user responsibility ID and click **Update**. This example specifies the following settings:

   - Configuration Name: AppAdapterGrantPrivilege

   - Value: R

   - Role: 21584

   The AppAdapterGrantPrivilege variable specifies the access level to grant to users based on the responsibility ID that is assigned to the user in E-Business Suite.

Figure 6-5   Example Responsibility Specific Configuration

6.6.2 Customizing Settings Based on Users' Assigned Roles

You can customize settings based on user role using Managed Attachments Administration. (For general information, see Configuring Managed Attachments Settings.) This enables you to retain a global value while customizing settings for specific user roles. For example, you might use this feature to limit Managed Attachments access to read-only for Content Server users who are assigned a read-only role.

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

   The Configure Managed Attachments page displays.

2. Scroll to the **Role Specific Configuration** settings in the lower portion of the page and click **Add**.

3. In the Add Role Specific Configuration page shown in Figure 6-6, enter fields to customize a Managed Attachments variable based on user role and click **Update**. This example specifies the following settings:

   • Configuration Name: AppAdapterGrantPrivilege

   • Value: R

   • Role: readRole

   The AppAdapterGrantPrivilege variable specifies the access level to grant to users. This example assumes that you have configured and assigned the user role (readRole, in this example) using User Admin functions in Content Server.

   Figure 6-6   Example Role Specific Configuration

6.6.3 Customizing Settings Based on Users' Business Context

You can customize settings based on user's business context using Managed Attachments Administration. (For general information, see Configuring Managed Attachments Settings.) This enables you to retain the global value while customizing it for specific business contexts. For example, you might use this feature to display and enable the Scan button only when the user's business context (businessObjectContext passed from the business application) is a certain value (such as ScanContext).

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

   The Configure Managed Attachments page displays.

2. Scroll to the **Business Context Specific Configuration** settings in the lower portion of the page and click **Add**.

3. In the Business Context Specific Configuration page shown in Figure 6-7, enter fields to customize a Managed Attachments variable based on business context, and click **Update**.

   The example shown in Figure 6-7 configures the Scan button to display when the businessObjectContext passed from the business application equals ScanContext. This example specifies the following settings:

   • Configuration Name: AppAdapterScanBtnVisible

- Value: true

- Role: ScanContext

Figure 6-7   Example Business Context Specific Configuration
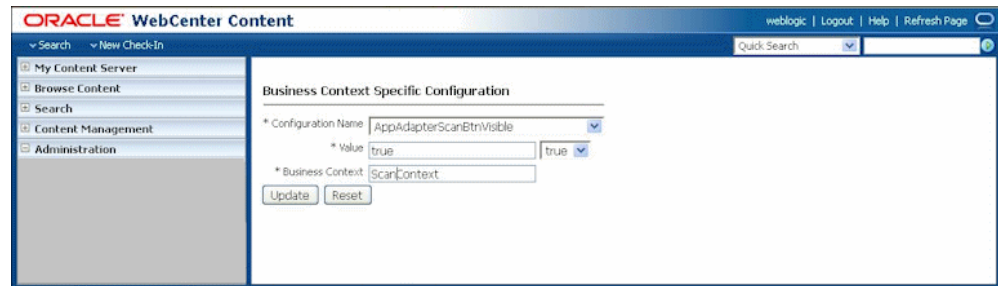
4. Configure the business application table to pass in the ScanContext value from the business application, just as you would configure key labels/values (labelValues).

   - For each Oracle PeopleSoft page to be configured, insert a row in the PS_AXF_CMD_PARAMS table that passes ScanContext. In Table B-39, see the row in which AXF_PARAM_NAME=businessObjectContext and AXF_CONSTANT_VALUE=ScanContext.

   - For each Oracle E-Business Suite OAF page, insert a row in the OAF_AXF_CMD_PARAMS table that passes ScanContext. In Table B-32, see the row in which AXF_PARAM_NAME=businessObjectContext and AXF_CONSTANT_VALUE=ScanContext.

   - For each Oracle E-Business Suite Forms page, insert a row in the AXF_COMMAND_PARAMETERS table that passes a context value. In Table B-20, see the example row in which PARAMETERNAME=businessObjectContext and CONSTANTVALUE=ScanContext. Note that you can specify a value using a constant value or a data block/fieldname.

6.6.4 Customizing Settings at Business Entity or Application Levels

You can customize settings at application and business entity levels using Managed Attachments Administration. (For general information, see Configuring Managed Attachments Settings.) This enables you to retain the global value while customizing it for specific business entities. For example, you might enable the Scan button to permit scanning globally, but disable it for a specific business entity by hiding the button.

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

   The Configure Managed Attachments page displays. Currently selected global settings are displayed under the Global Configuration heading.

2. Scroll to the **Entity Specific Configuration** settings in the lower portion of the page and click **Add**.

3. In the Add Entity Specific Configuration page shown in Figure 6-8, enter fields to override the global setting for an entity or application.

   - To override at the business entity level, complete all fields. The example values below configure the **From Repository** button to display for the ExpenseClaims business entity only, regardless of the global setting.

- To override at the application level, leave the **Object Name** field blank. Doing so in the example below would display the **From Repository** button for all business entities of the EBS_Instance application, regardless of the global setting.

Field	Description	Example
Application Name	Identifies the business application	EBS_Instance
Object Name	Identifies the business entity	ExpenseClaims
Configuration Name	Global configuration variable to set for business entity	AppAdapterRepoAttach ButtonVisible
Configuration Value	Variable value to set for business entity	true

Figure 6-8   Example Entity Specific Configuration
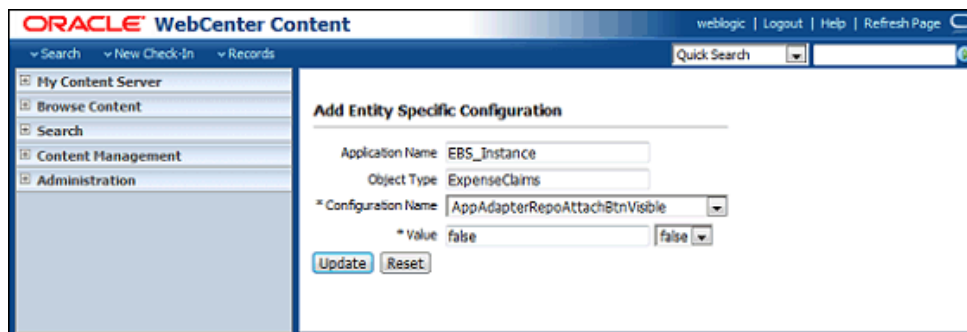
Note:

You must complete either the Application Name or Object Type field. Entering an object type without an application name applies the setting to the business entity of all applications with that object type.

6.6.5 Customizing the Document Type Used For New Attachments

A Content Server document type is selected by default when users click the **New** button to attach and check in a document. Using preferences.hda settings, you can specify a different default document type. In addition, you can specify document types on a global, application, or business entity level. For example, you might want to check in all new documents for an expenses business entity using a custom document type geared toward expense attachments.

Follow these steps.

1. On Content Server, create or modify a document type.

   For more information about document types, see the Content Server documentation.

2. In the preferences.hda file, add a new row in the AFEnvironmentConfiguration resultset. For general information, see Alternatively Editing Settings in the Preferences.hda File.

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

   - name: dDocType

   - value: document type key

   - dAFApplication: Application to which you assign this document type

   - dAFBusinessObjectType: Business entity within application to which you assign document type

   Example (7-3) sets the document type *ExpenseClaimsType* as the default type when users attach documents to the ExpenseClaims business entity (within the PSFT_Instance application).

   Following is an example of Custom Default Document Type For Expenses Business Entity:

   ```
   dDocType
   ExpenseClaimsType
   PSFT_Instance
   ExpenseClaims
   ```

4. Restart the Content Server.

6.6.6 Customizing the Content Server Profile Used

The adapter provides a default Content Server profile for each business application:

- *EBSProfile* for Oracle E-Business Suite

- *PSFTProfile* for Oracle PeopleSoft

- *UniversalProfile* for the Enterprise Application Adapter Framework

For 11*g*, you set the profile when running the AXF_ATTACHMENTS_CONFIG.sql script in Configuring 11g AXF Elements for Managed Attachments. You can copy and customize the profile, then assign it using one of the following methods, depending on customization needs. For example, you might want to add metadata fields to the profile.

For 12c, you set the profile using the config.cfg script in Configuring 12c AXF Elements for Managed Attachments.

> **Note:**
>
> If you use custom profiles, generic error messages display by default instead of application-specific error messages. To display custom error messages, override the resource include - af_custom_error_msg_display. In the overridden resource include, set the error message to **afErrorMsg**.

As part of customizing the Content Server profile, it is recommended to disable the Switch Profile option available in the Managed Attachments Content Check-In Form screen. If you do not do this and an incorrect profile is selected during check in, the document check in fails. To disable the Switch Profile option, you must set the *lockDownProfile=1* in the config.cfg file.

6.6.6.1 Changing the Profile Globally

Follow these steps to change the global profile used in 11*g*.

1. From the Content Server Configuration Manager, copy the default profile provided (EBSProfile, PSFTProfile, or UniversalProfile). To view these profiles, navigate to the **Profiles** tab in Configuration Manager.

2. Add new rules as needed. For example, add new metadata fields.

3. In the UCM_CONNECTION_STR parameter (trigger value) of the AXF_SOLUTION_PARAMETERS table, modify the URL to point to the new profile.

   For more information, see AXF_SOLUTION_PARAMETERS Table.

   For 12c, see Configuring 12c AXF Elements for Managed Attachments to create a custom profile.

6.6.6.2 Specifying a Profile For a Specific Business Entity or Application

Follow these steps to modify the profile for a specific business entity or application.

1. From the Content Server Configuration Manager, copy the default profile provided (EBSProfile, PSFTProfile, or UniversalProfile). To view these profiles, navigate to the **Profiles** tab in Configuration Manager.

2. Add new rules as needed. For example, add new metadata fields.

3. In the preferences.hda file, add a new row in the AFEnvironmentConfiguration resultset. For general information, see Alternatively Editing Settings in the Preferences.hda File.

4. Insert an entry that identifies the Content Server profile to use for a specified business entity, where:

   - name: dpTriggerValue

   - value: Key of new Content Server profile

   - dAFApplication: Application to which to assign this profile

   - dAFBusinessObjectType: Business entity within application to which to assign the profile

   Example (7-4) sets a profile called *OrderPayableProfile* to use when users attach or scan documents in the OrderPayables business entity within the EBS_Instance application.

   Following is an example of Custom Content Server Profile For Expenses Business Entity:

   ```
   dpTriggerValue
   OrderPayableProfile
   EBS_Instance
   OrderPayables
   ```

5. Restart the Content Server.

6.6.7 Hiding or Displaying Managed Attachments Page Buttons

You can choose to enable (display) or disable (hide) the buttons listed in Table 6-14 to users on the Managed Attachments page, by changing their variable setting to true or false, respectively. For details about Managed Attachments variables, see Working With Global Configuration Variables.

Table 6-14   Variables For Displaying or Hiding Managed Attachments Buttons

Button Variables	Description
AppAdapterRepoAttachBtnVisible	Displays or hides the **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
AppAdapterSearchWithinBtnVisible	Displays or hides the **Search Within** button
AppAdapterHelpIconVisible	Displays or hides the **Help** icon

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

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

2. Under Global Configuration, change a button's global setting to **false** to hide it, or **true** to display it.

3. To configure a button's display at a business entity level, create an entity-specific configuration by clicking Add under **Entity Specific Configurations** and completing fields as described in Customizing Settings at Business Entity or Application Levels.

6.6.8 Customizing Scanning

This section describes methods of customizing scanning functionality using Oracle Distributed Document Capture 10g or using Oracle WebCenter Enterprise Capture 11g. Note that the profiles are named as scan profile in Oracle Distributed Document Capture 10g and client profile in Oracle WebCenter Enterprise Capture 11g. This section includes the following topics:

- Enabling or Disabling Scanning

- Configuring an Alternate Scan Profile For a Business Entity

- Modifying the Document Classification Used

6.6.8.1 Enabling or Disabling Scanning

You can enable or disable scanning at the global, application, or business entity level. For example, you might disable scanning globally, then add an entity specific configuration to enable scanning for an OrderPayables business entity only, using the following Entity Specific Configuration settings:

- Application Name: EBS_Instance

- Object Type: OrderPayables

- Configuration Name: AppAdapterScanBtnVisible

- Configuration Value: true

6.6.8.2 Configuring an Alternate Scan Profile For a Business Entity

The adapter provides these default business application scan profiles, which display the Managed Attachment's Scan page. Each points to an application-specific field:

- *EBSScanProfile* references the EBSAppScanProfiles application field

- *PSFTScanProfile* references the PSFTAppScanProfiles application field

- *UniversalScanProfile* references the UniversalAppScanProfiles application field

You can customize the scan profile used, by copying the profile appropriate for your business application, modifying it to reference another application field, and configuring it for one or more business entities, as described in the following steps.

1. Copy the scan profile that applies to your business application, saving it with a new name.

   In Configuration Manager, navigate to the Profiles tab and select a custom scan profile. Click **Edit** to add a particular rule to the profile. For a custom scan profile to work properly, you must select **EBSScanRule** or **PSFTScanRule**.

2. Create all required schema elements, including the AppScanProfiles application field, table, and view.

   To change the application field reference, log in to Content Server. In Configuration Manager, navigate to the Rules tab. Select **PSFTScanRule**, **EBSScanRule**, or **UniversalScanRule**, click **Edit** on the Side Effects tab, and update the ScanProfileKey field to point to another application field.

3. In the preferences.hda file, add a new row in the AFEnvironmentConfiguration resultset.

4. Insert an entry that includes the afScanProfile setting, identifies the scan profile to use, and the application and business entity in which it applies.

   Following example shows a scan profile called *MyPIMScanProfile* enabled for the PIM business entity only.

   Following is an example of Enabling Another Scan Profile for a Business Entity:

   ```
   afScanProfile
   MyPIMScanProfile
   PSFT_Instance
   PIM
   ```

6.6.8.3 Modifying the Document Classification Used

The adapter provides the default business application document classifications for scanning listed in Table 6-15. Each classification includes a set of Content Server application fields, a table, and a view.

Table 6-15   Default Documentation Classifications Provided

Business Application	Content Server Fields	Table	View
Oracle E-Business Suite	EBSAppScanProfiles	EBSDocClass	EBSDocClassView
Oracle PeopleSoft	PSFTAppScanProfiles	PSFTDocClass	PSFTDocClassView
Enterprise Application Adapter Framework	UniversalAppScanProfiles	UniversalDocClass	UniversalDocClassView

To modify the classification:

1. Log in to Content Server. In Configuration Manager, navigate to the EBSDocClassView, PSFTDocClassView, or UniversalDocClassView.

2. Edit the document classification and scan type values. For more information, see Configuring Content Server for Distributed Document Capture Via Adapter.

6.6.9 Customizing Managed Attachments Page Images

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

6.6.10 Customizing the Style Sheet (CSS) Used

The adapter provides a standard style sheet for the Managed Attachments page. You can change it by overriding resource includes. For sample implementations, see *AppAdapter_CSS_resource.htm* for Oracle E-Business Suite or *ps_AppAdapter_CSS_resource.htm* for Oracle PeopleSoft.

> **Note:**
>
> Customizing style sheets for Managed Attachments requires advanced knowledge of Content Server configuration and customization. Be sure to back up the appropriate files before making modifications.

6.6.11 Configuring Attachment Relationship Attributes

Attachment relationship attributes allow you to store relationship metadata (information about relationships between a document and its business entity) upon attaching documents in Managed Attachments.

For example, suppose you have one document attached to two work order entities (WO1 and WO2), and want to allow users to print the document from WO1, but not from WO2. In this case, you would create a print attribute as an application field on Content Server, and then specify a print relationship attribute for the WO1 business entity in Managed Attachments Administration (or in the preferences.hda file). The print attribute would be displayed on the Update page to end-users for the WO1 entity only, allowing them to print the attached document.

Important Points About Attachment Relationship Attributes

- You can configure attachment relationship attribute for new document check-in, but not for documents attached through scanning.

- Adding a relationship attribute creates a new Application field in Content Server for the relationship attribute if one does not exist. You can update the Application field using Content Server Admin Applets - Configuration Manager. Adding a relationship attribute also adds an entry in the AFRelationshipAttributes section of the preferences.hda file described in Alternatively Editing Settings in the Preferences.hda File.

- At run-time, attachment relationship attribute values are stored in the AFRelationshipAttributes table; see AFRelationshipAttributes Table.

Follow these steps to configure attachment relationship attributes.

1. On Content Server, open Configuration Manager and navigate to the **Application Fields** tab.

2. Add one or more application fields.

3. Navigate to the Rules tab.

4. Edit the AFRelationshipAttributes rule. Add the application fields you added in step 2 to this rule.

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

6. On the Configure Managed Attachments page, scroll to the **Attachment Relationship Attributes** settings in the lower portion of the page, and click **Add**.

   The Add Attachment Relationship Attribute page displays.

Figure 6-9   Add Attachment Relationship Attribute Page
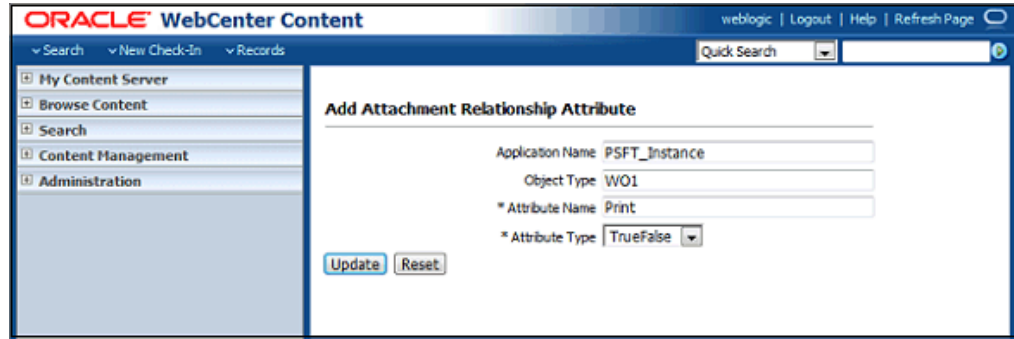
7. Complete fields for the attribute and click **Update**. The example in Figure 6-9 shows a relationship attribute (Print) configured for an WO1 business object for an Oracle PeopleSoft application.

Element	Description	Example
Application Name	Business application for which the relationship attribute is configured.	PSFT_Instance
Object Type	Business object for which to enable the relationship attribute	WO1
Attribute Name	Relationship attribute	Print
Attribute Type	Attribute's type. Available types include: Text, Long Text, Date, Memo, Integer, and TrueFalse.	TrueFalse

6.6.12 Configuring Revision-Specific Mode

By default, each attachment on the Managed Attachments page provides access to the *most recent revision* of the document. In certain cases, however, you may want to configure one or more business entities to provide access to the revision that was *attached*, even if the document was later updated on Content Server. In this mode, users can see that a more recent revision exists, and if needed, view it and make it the attached revision.

Follow these steps to configure a business entity to display the attached revision instead of the most recent revision.

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

2. On the Configure Managed Attachments page, scroll to the **Entity Specific Configuration** settings in the lower portion of the page, and click **Add**.

The Add Entity Specific Configuration page displays.

Figure 6-10   Configuring Revision Specific Mode in the Add Entity Specific Configuration Page
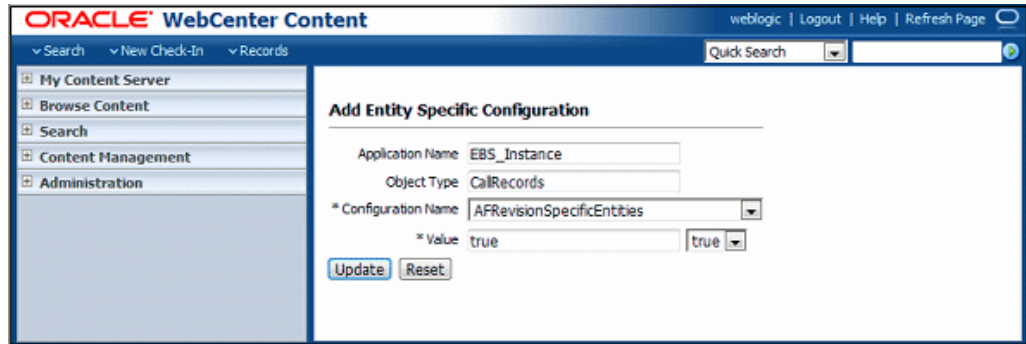
3. Complete fields for revision specific mode, choosing AFRevisionSpecificEntities for the **Configuration Name** field, and click **Update**. The example in Figure 6-10 shows revision specific mode configured for a CallRecords business object for an Oracle E-Business Suite application.

Element	Description	Example
Application Name	Business application for which the relationship attribute is configured.	EBS_Instance
Object Type	Business object for which to enable the relationship attribute.	CallRecords
Configuration Name	To configure revision specific mode, choose **AFRevisionSpecificEntities**.	Print
Field Type	To configure revision specific mode, choose true.	true

Alternatively, follow these steps to configure revision-specific mode using the preferences.hda file.

1. Open the preferences.hda file, and add a new row in the AFRevisionSpecificEntities resultset. (For general information, see Alternatively Editing Settings in the Preferences.hda File.)

    Each row in the resultset represents one business entity for which to enable revision specific attachments, where:

    •   *dAFApplication* refers to the business application for which to enable the revision feature.

    •   *dAFBusinessObjectType* refers to the business object for which to enable the revision feature.

    Following example shows revision-specific mode configured for a CallRecords business object for an Oracle E-Business Suite application.

    Following is an example of AFRevisionSpecificEntities Customization:

```
@ResultSet AFRevisionSpecificEntities
2
```

```
dAFApplication
dAFBusinessObjectType
EBS_Instance
CallRecords
@end
```

6.6.13 Changing the Result Count

The Managed Attachments page displays a specific number of attachment results per page (referred to as *ResultCount*). If the number of results exceeds ResultCount, previous and next page controls display on the page. You can change it to another number (such as 20) by specifying a new ResultCount value in Managed Attachments configuration. See Working With Global Configuration Variables.

6.6.14 Changing the Result Template

The Managed Attachments page uses a result template to determine its display. The Content Server result template specifies the Managed Attachments user interface. The adapter provides these result templates:

- The Oracle E-Business Suite template, *adapter_list_results_template.htm*, is referred to as **EBS_LIST**.

- The Oracle PeopleSoft template, *ps_adapter_list_results_template.htm*, is referred to as **PSFT_LIST**.

- The Enterprise Application Adapter Framework template, *universal_adapter_list_results_template.htm*, is referred to as **Universal_LIST**. See Optionally Customizing the Framework Layout_ Images_ and Profile.

Follow these steps to identify an alternate result template for an application or business entity.

> **Note:**
>
> Customizing the result template requires advanced knowledge of Content Server administration and customization.

1. Create a copy of the appropriate default result template and register the template with a new name, preferably in a new component.

    - The Oracle E-Business Suite template is located at:

      UCM_HOME/custom/AppAdapterEBS/
      adapter_list_results_template.htm

    - The Oracle PeopleSoft template is located at:

      UCM_HOME/custom/AppAdapterPSFT/
      ps_adapter_list_results_template.htm

    - The Enterprise Application Adapter Framework template is located at:

      UCM_HOME/custom/AppAdapterUniversal/
      universal_adapter_list_results_template.htm

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

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

In the following example, all requests to Managed Attachments for the WorkOrder business entity would use the *EBS_WORK_ORDER_LIST* custom result template instead of the default Oracle E-Business Suite template.

Following is an example of Preferences.hda Entry For Specifying a Custom Result Template:

```
ResultTemplate
EBS_WORK_ORDER_LIST
EBS_Instance
WorkOrder
```

6.6.15 Setting Default Columns

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

The column defaults are title, type, author, date, and revision as follows:

dDocTitle,dDocType,dDocAuthor,dInDate,dRevision

To set alternate default columns for an application or business entity, follow these steps.

1. In the preferences.hda file, add an entry in the AFEnvironmentConfiguration section.

2. Set the value of the *AppAdapterDefaultDisplayColumns* configuration variable as a comma-delimited list containing Content Server metadata field names.

   In the following example, the first entry sets document title, type, author, and date as the default columns for the EBS_Instance application. The second entry overrides this setting for the CallRecords business entity by adding the revision column (dRevision) as a default column.

Following is an example of Preferences.hda Entries For Specifying Default Columns:

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

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

6.6.16 Enabling the Paperclip with Attachments (Oracle E-Business Suite Forms Only)

By default, the Oracle E-Business Suite paperclip attachment option is disabled as part of Managed Attachments configuration. To use this native Oracle E-Business Suite attachments feature in coexistence with the Managed Attachments solution, you must reenable the paperclip icon as described as follows.

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

1. Add the following row to the AXF_PROPERTIES table:

Table 6-16   AXF_PROPERTIES Values For PaperClip Use

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

For more information, see AXF_PROPERTIES Table (Oracle E-Business Suite Forms).

6.6.17 Passing Extra Metadata Values From a Business Application to Content Server

You can configure the Managed Attachments solution to pass extra metadata values from the business application to Content Server to store with attached documents. For example, you might pass a claim number from a Claims application so that when users attach or scan documents, a Claim Number field on the Content Check In and Scan Document pages is prepopulated with the value.

This feature works as follows:

- The business application field whose metadata value is to be passed to Content Server must exist in the business application. For example, you might pass a business record's service request number or primary key.

- Using Content Server's Managed Attachments administration variables (Table 6-9 and Table 6-10), you specify the field whose value will be passed when users either check in or scan a document. This prepopulates the specified field in the Content Check In or Scan Document page for users.

- In the business application's command parameters table, you identify the extra metadata field to be passed.

Follow these steps to configure passing extra metadata values.

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

2. Under **Global Configuration**, enter one or more field names to pass, using a comma to separate multiple names.

   - Enter field names in the **AppAdapterExtraCheckinMetadata** field to pass their values directly to the Content Check In page.

   - Enter field names in the **AppAdapterExtraScanMetadata** field to pass their values directly to the Scan Document page.

3. Access the command parameters table for your business application.

   - For an Oracle E-Business Suite Forms configuration, access the AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite Forms) and the AXF_MA_PARAMETERS Table (Oracle E-Business Suite Forms) to pass additional parameters.

- For an Oracle E-Business Suite OAF configuration, access the OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF).

- For a PeopleSoft configuration, access the PS_AXF_CMD_PARAMS Table.

- For an Enterprise Application Adapter Framework configuration, see Passing Values Via Enterprise Application Adapter Framework.

4. Add entries in the table for the extra values to be passed to Content Server, similar to adding labelValue rows. See the example command shown in the following example and the example table shown in Table 6-17.

   Add a row for each metadata value, prepending the Content Server field name with **extra**. For example, xReqNum becomes extraxReqNum and dDocTitle becomes extradDocTitle.

   > **Note:**
   >
   > Typically, Content Server extra information fields have an x character in front of them and standard ones have a d character in front of them. For more information, refer to the section on standard metadata fields in the *Managing Oracle WebCenter Content*.

   Following is an example of Inserting Extra Metadata Field into OAF Command Parameters Table:

   ```
   Insert into OAF_AXF_CMD_PARAMS (AXF_CMD_PARAMS_ID, AXF_CMDS_ID, AXF_PARAM_NAME,
   AXF_DATASOURCE,AXF_VIEW_OBJ_NAME, AXF_ATTRIBUTE_NAME,AXF_CONSTANT_VALUE) values
   (OAF_AXF_CMD_PARAMS_SEQ.NEXTVAL,v_cmdId,'extraxReqNum','DATA','ReqHeaderVO',
   'ReqNum',null);
   ```

Table 6-17   Example OAF_AXF_CMD_PARAMS Table With Extra Metadata Field Specified

AXF_CMD_ PARAMS_ID	AXF_CM DS_ID	AXF_PARAM_ NAME	AXF_DATA SOURCE	AXF_VIEW_ OBJ_NAME	AXF_ATTRIBUTE _NAME	AXF_CONSTANT_ VALUE
1	1	application	CONSTAN T			EBS_instanceA
2	1	businessObject Type	CONSTAN T			REQ_HEADERS
3	1	businessObject Key1	CONSTAN T			REQUISITION_HE ADER_ID
4	1	businessObject Value1	DATA	ReqHeader VO	RequisitionHeade rId	
5	1	labelValue1	DATA	ReqHeader VO	PreparerName	
6	1	labelValue2	DATA	ReqHeader VO	ReqNum	
7	1	**extraxReqNu m**	DATA	ReqHeader VO	ReqNum	

6.6.17.1 Passing Values Via Enterprise Application Adapter Framework

For the Enterprise Application Adapter Framework, pass the extra metadata values as part of the request parameters section of the SOAP envelope body, prepending the Content Server field name with **extra** (xReqNum becomes extraxReqNum and dDocTitle becomes extradDocTitle). For example:

```
<entry><key>extraxReqNum</key><value>123456</value></entry>
```

6.6.18 Resizing Oracle PeopleSoft Popup Solution Windows

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

- The default popup window size is 600 pixels high by 800 wide, set in the PS_AXF_PROPERTIES Table. When a size is set in this table, users cannot set and save popup window size themselves.

- To change window size, enter new values in the table, as shown in PS_AXF_PROPERTIES Table.

- To remove the popup window size and allow individual users to change and save popup window size using standard browser controls, remove the WINDOW_HEIGHT and WINDOW_WIDTH rows from the PS_AXF_PROPERTIES Table.

6.6.19 Configuring an Entity's Private Attachments Security Group

When users check in documents through Managed Attachments, they can choose private or shared access for them, as described in Configuring Document Security. Private documents are automatically assigned to a special Content Server security group called *AFDocuments*.

On a per entity level, you can optionally override the security group for private attachments, and assign documents to an alternate security group, by following these steps.

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

2. On the Configure Managed Attachments page, scroll to the **Entity Specific Configuration** settings in the lower portion of the page, and click **Add**.

   The Add Entity Specific Configuration page displays.

Figure 6-11   Configuring Entity Level Private Attachments Security Group
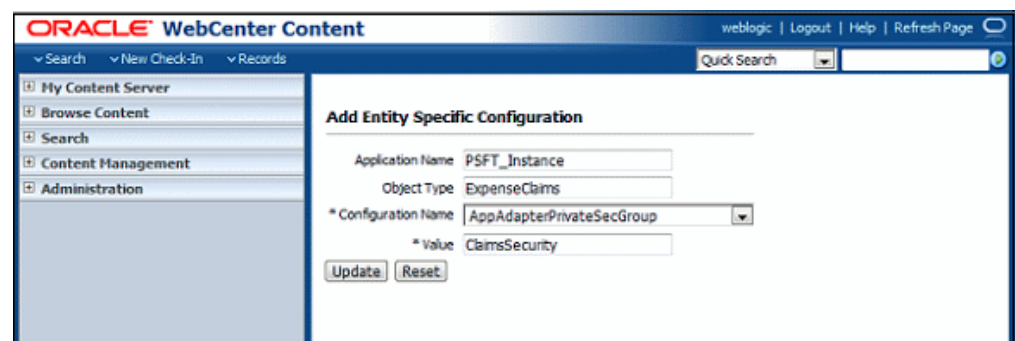
3. In the Add Entity Specific Configuration page shown in Figure 6-11, complete the fields, identifying the *AppAdapterPrivateSecGroup* variable and the alternate security group to use for a specified business entity, where:

- Application Name: Application for which to assign alternate security group

- Object Type: Business entity for which to assign alternate security group

- Configuration Name: AppAdapterPrivateSecGroup

- Configuration Value: Alternate security group

The example values shown in Figure 6-11 set *ClaimsSecurity* as the security group when users attach private documents to the ExpenseClaims business entity (within the PSFT_Instance application).

4. Assign the following roles to the specified security group (must be the same as those assigned to the AFDocuments security group): AFRead, AFWrite, AFDelete, and AFAdmin.

5. In the config.cfg file, add the alternate security group to the **SpecialAuthGroups** configuration variable.

6.6.20 Restoring Business Application User Pass Through for Managed Attachments (*11g Release*)

As described in Allowing Oracle WebLogic Server/Business Application Users to Perform Tasks, the BPEL Imaging solution allows you to configure the authenticated Oracle WebLogic Server user to perform tasks, rather than the user passed from Oracle E-Business Suite or Oracle PeopleSoft. This option is provided through a USERNAME_PASS_THROUGH parameter in the AXF_SOLUTION_ATTRIBUTES Table, where:

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

- FALSE: Uses the authenticated Oracle WebLogic Server user to perform tasks.

> **Note:**
>
> If no value is provided, the value defaults to FALSE.

The Managed Attachments solution requires that the passed-in user from Oracle E-Business Suite or Oracle PeopleSoft perform tasks. The AXF_ATTACHMENTS_CONFIG.SQL script that you ran in Configuring AXF Elements for Managed Attachments for Managed Attachments sets the USERNAME_PASS_THROUGH value to TRUE. If needed at any point, restore the parameter's value to TRUE, as shown in Table 6-18 and AXF_SOLUTION_ATTRIBUTES Table.

Table 6-18   AXF_SOLUTION_ATTRIBUTES Table, USERNAME_PASS_THROUGH Configuration for Managed Attachments

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AXF	USERNAME_PASS_THROUGH	TRUE

6.6.21 Renaming the Managed Attachments Button For OAF Entities

To rename the Managed Attachments button for Oracle E-Business Suite OAF entities, such as for localization purposes:

1. Open the *ManagedAttachmentButtonRN.xml* file, which was imported into the MDS repository on the Oracle E-Business Suite OAF side during setup.

2. Locate the following line and replace `Managed Attachments` with a localized name.

   ```
   <oa:button id="MAButton" prompt="Managed Attachments"/>
   ```

3. Using the import command, reimport the file into MDS.

6.7 Configuring Authentication and Security

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

- Configuring a CSF Credential for Managed Attachments

- Configuring User Authentication

- Configuring Document Security

- Securing Communications Between AXF and Content Server

- Managing Business Application and Content Server Users

6.7.1 Configuring a CSF Credential for Managed Attachments

You must store the administrator user credentials in a credential store framework (CSF), a user name/password pair that is keyed by an alias and stored inside a named map in the CSF. The user name stored in the CSF is compared with the user name sent by Oracle E-Business Suite, Oracle PeopleSoft, or a custom plug-in calling the Enterprise Application Adapter Framework in the web services call. If the administrator user names do not match (see AXF_SOLUTION_PARAMETERS Table), access to the Managed Attachments page is prevented.

You can create a credential through Enterprise Manger (EM) or through WebLogic Scripting Tool (WLST).

6.7.1.1 Creating a Credential Using Enterprise Manager

1. Log in to Enterprise Manager.

2. Right-click on your domain under **WebLogic Domain**.

3. Click **Security** and then **Credentials**.

4. Select the oracle.wsm.security map. If it does not exist, follow these steps:

   a. Select **Create Map**.

   b. Enter **oracle.wsm.security** in the map field and click **OK**.

5. Expand the oracle.wsm.security map.

6. Click **Create Key**. The key is now available for selection.

7. Enter `MA_CSF_KEY` as the key name.

8. Select **password** in the **Type** field.

9. Enter a user name and password for a valid Oracle WebLogic Server administrator (for example, `weblogic` and `Welcome1`).

   The user name and password are passed by the business application to AXF, and were previously configured for the Web Services call from Oracle E-Business Suite (see Securing Communications Through SOAP Security), Oracle PeopleSoft (see Configuring Communication With an 11g AXF Server), and a custom plug-in calling the Enterprise Application Adapter Framework (see Configuring the SOAP Service Call and Managed Attachments URL Display).

10. Click **OK**.

6.7.1.2 Creating a Credential Using WLST

1. Execute the following command, where **username** and **password** refer to a valid Oracle WebLogic Server administrator passed by the business application to AXF, and were previously configured for the Web Services call from Oracle E-Business Suite (see Securing Communications Through SOAP Security), Oracle PeopleSoft (see Configuring Communication With an 11g AXF Server), and a custom plug-in calling the Enterprise Application Adapter Framework (see Configuring the SOAP Service Call and Managed Attachments URL Display).

   ```
   createCred(map="oracle.wsm.security", key="MA_CSF_KEY",
   user=[username], password=[password])
   ```

   Example:

   ```
   createCred(map="oracle.wsm.security", key="MA_CSF_KEY",
   user="weblogic", password="Welcome1")
   ```

2. Execute the following command to verify that the credential was created properly:

   ```
   listCred(map="oracle.wsm.security",key="MA_CSF_KEY")
   ```

6.7.2 Configuring User Authentication

Business application users must have a Content Server account to display the Managed Attachments page within the supported business application entity. In addition, the authentication model configured for Content Server and the business application determines how users are authenticated the first time they activate managed attachments from a business application record:

- **Content Server configured for single sign-on:** If the business application is not configured for single sign-on, the Content Server single sign-on login prompt displays. (If the business application is configured for single sign-on, the user has been authenticated so no login prompt displays.)

- **Content Server *not* configured for single sign-on:** The Content Server login prompt displays, regardless of the selected business application authentication model.

Note:

No user authentication is needed for AXF if security checks are properly configured, as described in Configuring Authentication and Security.

6.7.3 Configuring Document Security

When checking documents into Content Server through the Managed Attachments user interface, users specify their access by choosing one of two modes:

- **private** (not shared): Users can access these documents only through their associated business application entity screens through the Managed Attachments user interface. Users (including the user who checks in a document) cannot search for or access a private document using any other standard Content Server user interface. This is the default security mode when checking in a new document through the Managed Attachments user interface.

  Note:

  The **AppAdapterCheckinPrivate** global configuration variable determines if the **Share Document** field on the Content Check-In page is deselected by default (set for private check-in). For more information, see Working With Global Configuration Variables.

  Note:

  Private (not shared) documents are automatically assigned to a special security group called *AFDocuments*, and users who have access to the business application entity are granted temporary access to the documents when they invoke the Managed Attachments user interface. The **AppAdapterPrivateSecGroup** variable enables you to override on a per entity level the security group to use for private attachments, and assign them to an alternate group. For more information, see Configuring an Entity's Private Attachments Security Group.

  In certain exceptional cases, an administrator might grant special users direct access to the AFDocuments security group by permanently assigning the AFRead, AFWrite, AFDelete, or AFAdmin roles for the AFDocuments security group, in which case the user could access a private document through any standard Content Server user interface.

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

> **Note:**
>
> Users can view shared documents only in AutoVue (if configured). They cannot view private documents. For details, see Configuring Oracle AutoVue Document Viewing.

6.7.4 Securing Communications Between AXF and Content Server

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

6.7.4.1 Using the Content Server System Properties Application

1. Open the System Properties utility for the Content Server instance.

2. Select the Server tab.

3. Identify the AXF host by either entering a name in the **Hostname Filter** field or an address in the **IP Address Filter** field.

4. Click OK and restart Content Server.

6.7.4.2 By Editing the Content Server Config.cfg File

1. Open the config.cfg file.

2. Locate the SocketHostAddressSecurityFilter entry, and edit it to include the IP address of the system on which AXF is running.

3. Restart Content Server.

6.7.5 Managing Business Application and Content Server Users

Keep the following guidelines in mind when managing Oracle E-Business Suite, Oracle PeopleSoft, or other business application users for Managed Attachments access (for example, when managing users in a central repository using single sign-on):

- In order for business application users to access Managed Attachments functionality, their Oracle E-Business Suite, Oracle PeopleSoft, or other business application user names MUST match their Content Server user names.

- When creating Content Server users (global or local), do NOT assign the AFRead, AFWrite, AFDelete, or AFAdmin roles.

  The adapter dynamically assigns roles to the user: Roles are granted to the user based on dPrivilege's value when the AF_GRANT_ACCESS service is invoked (see AFGrants Table); or, if not specified, based on the configuration variable AppAdapterGrantPrivilege's value (see Configuring Managed Attachments Settings). Depending on the privilege (R, W, D, or A), a predefined role is dynamically assigned to the user.

Caution:

Do not delete the AFRead, AFWrite, AFDelete, AFAdmin roles from the system.

6.8 Configuring Oracle AutoVue Document Viewing

This section covers the following topics:

- About Configuring Oracle AutoVue

- Requirements For Oracle VueLink for Content Server

- Enabling AutoVue For the Adapter

6.8.1 About Configuring Oracle AutoVue

The default document viewing option for the Managed Attachments page is the standard web rendition provided by Content Server. For enhanced viewing options, the adapter also supports Oracle AutoVue through VueLink for Content Server, where non-private attachments of virtually any document type are available for viewing, printing, collaboration, annotation, and mark up, delivered securely using Web technologies.

Important Points About the AutoVue/Adapter Integration

- If configured, users can view all non-private attachments through AutoVue. For details on shared versus private documents, see Configuring User Authentication.

- The VueLink integration serves as a bridge that securely streams documents from the Content Server repository to AutoVue for viewing, digital markup and collaboration. Digital markups are saved in the Content Server repository and associated with the attached document.

- By default, AutoVue is turned off in the Managed Attachments solution. You activate it on the Configure Managed Attachments page, by displaying the AutoVue icon and identifying the URL to the AutoVue servlet to launch when the user clicks the **View in AutoVue** icon.

- As with other preferences settings, you can enable the AutoVue integration at the global, application, and business entity levels.

- AutoVue trusts the user authentication against Content Server. Once authenticated to Content Server, no further authentication to AutoVue is required for users to view attached documents using AutoVue.

- Viewing or annotating a document in AutoVue does not check it out or prevent it from being edited by others. Annotations are contained in a separate layer from their corresponding document.

6.8.2 Requirements For Oracle VueLink for Content Server

This section lists requirements for integrating AutoVue viewing with Content Server. For specific release requirements, see the configuration and certification information at the following location:

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

Note:

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

Note:

The AutoVue option for Managed Attachments is not supported on WebSphere Application Server.

Requirements include:

- Oracle AutoVue (and any applicable service packs).

- Oracle VueLink for Content Server, the AutoVue VueLink integration for Content Server. (Also see the system administrator documentation for this integration.)

6.8.3 Enabling AutoVue For the Adapter

Follow these steps to enable and configure AutoVue document viewing globally, or for a specific application or business entity.

1. Configure the Content Server/AutoVue integration.

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

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

3. On the Configure Managed Attachments page, enable display globally of the AutoVue icon by setting the **AppAdapterAutoVueIconVisible** variable to True. For general information, see Configuring Managed Attachments Settings.

4. In the **AutoVueURLPath** field, specify the AutoVue servlet to run, using the following format:

   ```
   http://ucm_host name:port/web_root/idcplg?IdcService=VIEW_IN_AUTOVUE
   ```

   For example:

   ```
   http://ucm1.example.com/cs/idcplg?IdcService=VIEW_IN_AUTOVUE
   ```

5. Optionally specify application or business entity settings by adding new rows in the AFEnvironmentConfiguration resultset for the AppAdapterAutoVueIconVisible and AutoVueURLPath variables, where:

   - dAFApplication: Application in which to display or hide button

   - dAFBusinessObjectType: Business entity within application in which to display or hide button

   Figure 6-12 contains several AutoVue settings. It assumes that the **View in AutoVue** icon is set to false globally. The first two entries enable and display the icon for the PSFT_Instance_A application. The last two entries enable and display

the icon for the PSFT_Instance_B application, but *only* within its PIM business entity.

Figure 6-12   Example AutoVue Document Viewing

Entity Specific Configuration				
Application Name	Object Type	Configuration Name	Configuration Value	Action
PSFT_Instance_A		AutoVueURLPath	http://ucm1.example.com/idc/jsp/autovue/csiApplet.jsp	Delete
PSFT_Instance_A		AppAdapterAutoVueIconVisible	true	Delete
PSFT_Instance_B	PIM	AutoVueURLPath	http://ucm1.example.com/idc/jsp/autovue/csiApplet.jsp	Delete
PSFT_Instance_B	PIM	AppAdapterAutoVueIconVisible	true	Delete
Add				

6.9 Configuring Oracle WebCenter Enterprise Capture

This section covers the following topics:

- About Document Scanning Using Oracle WebCenter Enterprise Capture

- Oracle WebCenter Enterprise Capture and Related Components Requirements

- Configuring Oracle WebCenter Capture For the Adapter

- Configuring Content Server for WebCenter Enterprise Capture via Adapter

- Testing the Oracle WebCenter Enterprise Capture via Adapter Configuration

---

Note:

For installation requirements specific to Oracle WebCenter Enterprise Capture use with this adapter, see Oracle WebCenter Enterprise Capture and Related Components Requirements.

6.9.1 About Document Scanning Using Oracle WebCenter Enterprise Capture

The Oracle WebCenter Enterprise Capture application enables an application such as the adapter to direct it to scan a document and pass in document metadata values. This allows users to scan a document or import a file (image or non-image file such as PDF or Microsoft Word file) from the Managed Attachments page and attach it to the selected business application record.

When configured for the adapter, document scanning works as follows:

- A **Scan** button is added to the Managed Attachments page. The user clicks the button, and selects options such as a **Document Classification** and **Security Group** which are assigned to an Oracle WebCenter Enterprise Capture client profile. For example, the user might select a classification of *Identity Documents* to scan a photocopy of a driver's license or passport. (An Oracle WebCenter Enterprise Capture client profile specifies scanning, importing, and indexing settings.) The user also specifies whether the document should be shared, and if so the user specifies a security group for the shared document from those to which the user has access.

- When the user clicks the **Scan Document** button, Oracle WebCenter Enterprise Capture's client launches in a new window and passes in parameters such as the client profile to use and business application entity values for later attachment.

- Within the Oracle WebCenter Enterprise Capture client, the user reviews the document, makes changes as needed, completes any metadata fields configured in the client profile, and then releases the batch. Releasing the batch commits the new document to Content Server using a Capture commit profile configured to output to WebCenter Content. (A Capture commit profile configured for Content output specifies connection information and field mappings between WebCenter Enterprise Capture and Content Server metadata fields.)

- Upon successful batch release, the user returns to the Managed Attachments page and refreshes the display to view the newly scanned document or imported file.

6.9.2 Oracle WebCenter Enterprise Capture and Related Components Requirements

This section lists requirements for implementing scanning and importing functionality with Oracle WebCenter Enterprise Capture. For complete system requirements, such as browsers, see the configuration and certification information at the following location:

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

> **Note:**
>
> The requirements listed in this section apply only if you are using Oracle WebCenter Enterprise Capture for optional scanning functionality.

Requirements include:

- Oracle WebCenter Enterprise Capture 11g

6.9.3 Configuring Oracle WebCenter Capture For the Adapter

Follow these steps to configure attachment scanning on the Oracle WebCenter Capture side:

1. If needed, configure Single Sign-on (SSO) for Oracle WebCenter Capture.

   As long as the adapter and WebCenter Capture are configured in Oracle Access Manager (OAM), Capture users can be authenticated via SSO.

2. In the Capture Workspace Console, add metadata fields to a selected workspace for capturing values for new documents, as shown in Figure 6-13. For details, see the section on workspace elements in *Managing Oracle WebCenter Enterprise Capture*.

   a. Create metadata fields for values to save with attached documents on the Content Server. For example, you might configure Doc Type and Security Group choice list metadata fields for users to select from standard document types.

   b. Create the following alphanumeric metadata fields to contain the business application entity values and required fields:

      - dAFApplication

      - dAFBusinessObjectType

- dAFBusinessObject

- dSecurityGroup

Figure 6-13   WebCenter Capture, Metadata Fields
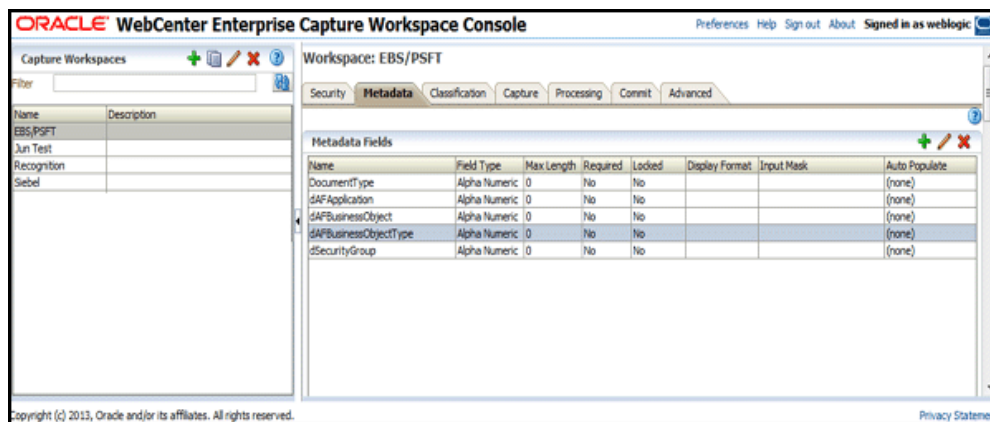
3. On the Workspace's **Classification** tab, create a document profile for the adapter metadata fields, as shown in Figure 6-14. For details, see the section on document profiles in *Managing Oracle WebCenter Enterprise Capture*.

Figure 6-14   WebCenter Capture, Document Profile
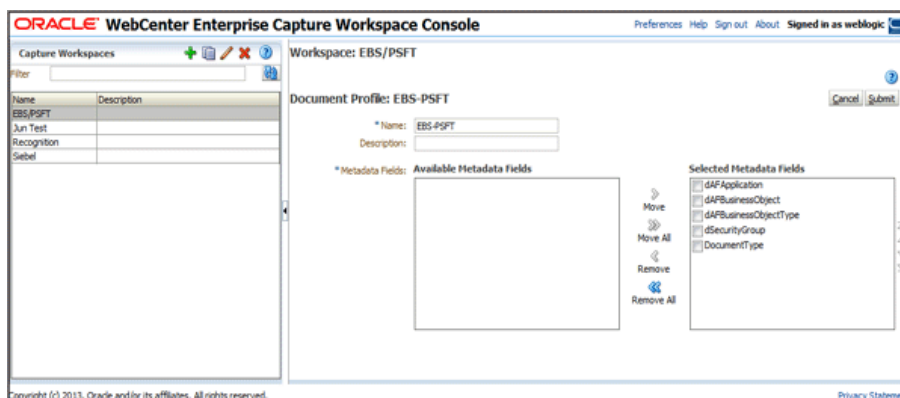
Note:

Typically, you would not select the business application entity field (dAFBusinessObject, for example) for display to users. If you choose to display it, lock it under the metadata settings to prevent users from changing the value.

---

4. On the **Capture** tab, create a client profile, as shown in Figure 6-15. Later, you associate this client profile with one or more document classifications, so that when a user selects a classification, the associated client profile's settings are used. For details, see the section on client profiles in *Managing Oracle WebCenter Enterprise Capture*.

    a. On the **General Settings** train stop, select **2 - Capture and Index** in the **Profile Type** field. This capture type includes capturing (scanning or importing) and indexing. Specify a profile name and batch prefix for the client profile.

b. On the **Document Indexing Settings** train stop, select the adapter document profile you created in step 3. You can optionally select a database lookup profile if you created one on the Metadata tab.

c. Click **Submit** to save the client profile.

Figure 6-15   WebCenter Capture, Client Profile
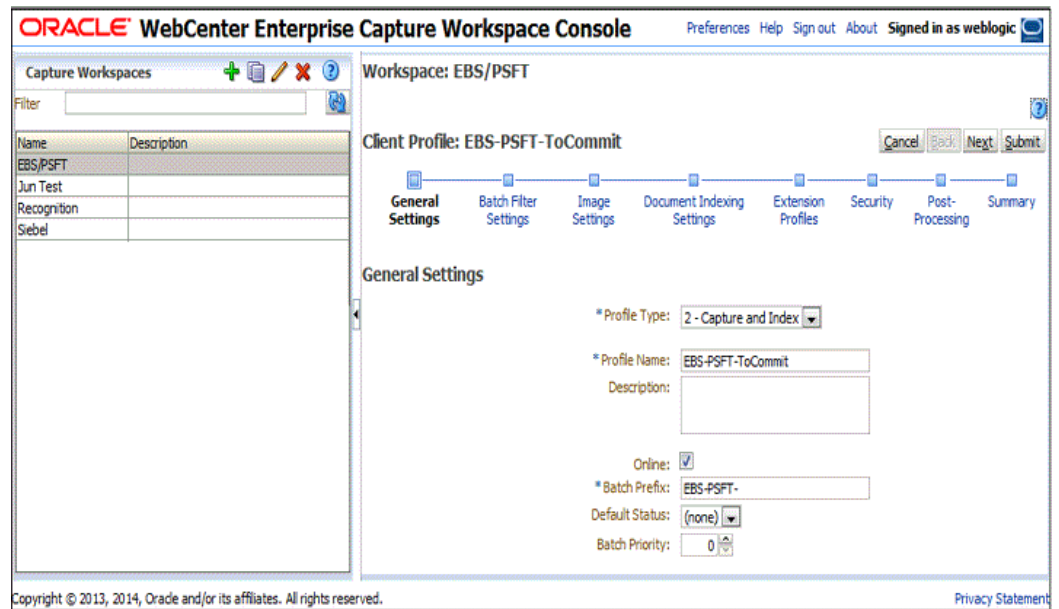
5. On the **Commit** tab, create an Oracle WebCenter Content commit profile to commit the scanned or imported documents to the Content Server when users release a completed batch.

This commit profile specifies how to connect to the Content Server and how the business application and Capture values are passed to the Content Server. For information about creating Content Server commit profiles, see the section on committing profiles in *Managing Oracle WebCenter Enterprise Capture*.

a. On the **General Settings** train stop, select **WebCenter Content** in the **Commit Driver** field. For this integration, it is recommended that you select **PDF Image-Only** from the **Document Output Format** field. In the **Restrict Commit to Document Profiles** field, select the document profile you created in step 3.

b. On the **Login** tab, specify settings for logging in to the Content Server instance. (The other tabs become active after you log in.) Use the following format for the Content Server URL:

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

The specified Content Server user must be assigned the AFWrite role for the AFDocuments security group. It is recommended that you create a special Capture user specific to the Managed Attachments solution for this purpose to ensure regular users do not gain write access to the AFDocuments security group, which is reserved for the Managed Attachments solution. For details about the AFDocuments group, see Configuring Document Security.

c. On the **Check-In** tab, choose **Assign Values Dynamically** and **By Field Mappings** fields. Also specify how to name documents in the **Document Title** field.

d. On the **Field Mappings** tab, click the **Add** icon in the Custom Fields table and add the following custom fields, as shown in Figure 6-16:

- dAFApplication

- dAFBusinessObjectType

- dAFBusinessObject

The custom fields you added now display on the **Field Mappings** tab. Map these custom fields to the corresponding metadata fields you created in step 2, as they are required to attach the new Content Server document to the business application entity. Also map other Capture fields whose values you want written to the Content Server fields.

e. On the **Options** tab, specify additional settings.

Figure 6-16   WebCenter Content, Field Mappings
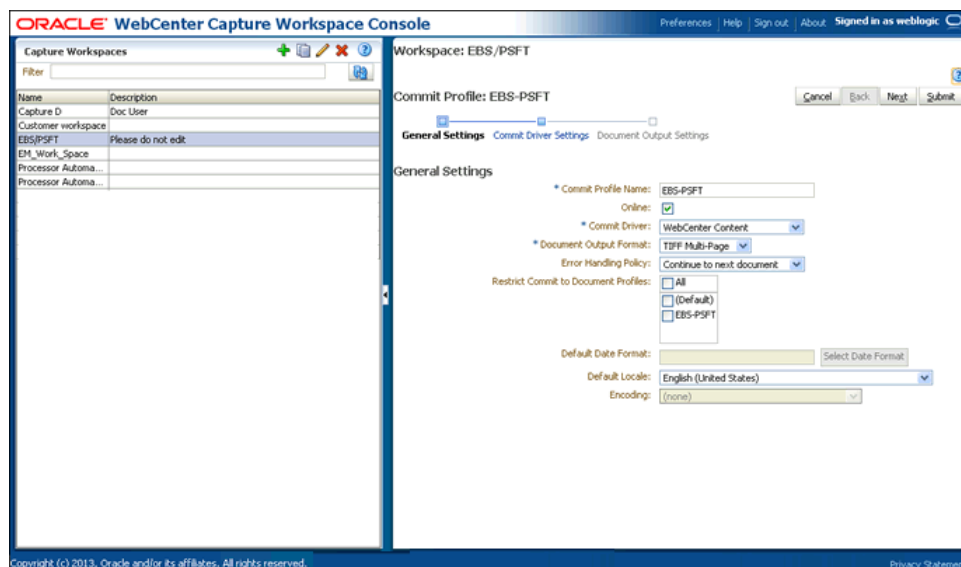
6.9.4 Configuring Content Server for WebCenter Enterprise Capture via Adapter

Follow these steps to configure attachment scanning on the Content Server side:

1. On Content Server, edit the following configuration variables for Oracle WebCenter Enterprise Capture, if you have not done so. See Configuring Managed Attachments Settings.

- `ODDCURLPath http://`*`capture_host:port`*`/dc-client`

- `ODDCScanAction `*`ODDC Scan Action`*

- `AdapterAppScanBtnVisible true`

2. Restart Content Server.

3. On Content Server, configure document classification and scan types.

    a. From the Administration tray in Content Server, click the **Admin Applets** link.

    b. Select the **Configuration Manager** applet. The Configuration Manager displays.

    c. Click the **Views** tab, select the appropriate document classification view from the alphabetical list (**EBSDocClassView** for Oracle E-Business Suite, **PSFTDocClassView** for Oracle PeopleSoft, or **UniversalDocClassView** for Enterprise Application Adapter Framework), and click **Edit Values**.

4. In the **Edit Values** dialog box, click **Add** and specify the document classification and the corresponding client profile. Note that documentClassification entries must be unique, but a client profile can be used multiple times. Click **Close**.

5. From the Options menu, choose **Publish schema** to publish the data.

6.9.5 Testing the Oracle WebCenter Enterprise Capture via Adapter Configuration

Follow these steps to test the configuration as an end-user. For details about scanning using Oracle WebCenter Enterprise Capture as an end user, see *Using the Application Adapters for Oracle WebCenter*.

1. Refresh the Managed Attachments results page. You should see a Scan button beside the New button.

2. Click **Scan**. On the Scan Document page, select a document classification and security group, and click **Scan Document**. The Oracle WebCenter Enterprise Capture client launches.

Notice that the URL reflects the settings you specified to run the client. It also passes the client profile, scan action (1 = Scan and 2 = Import), and metadata containing the Oracle E-Business Suite or Oracle PeopleSoft entity values.

3. Within the Oracle WebCenter Enterprise Capture client, review, index, and release the document's batch.

4. Return to the Managed Attachments page and click **Refresh**. The newly scanned document or imported scanned file should be displayed in the list. (It may take a few minutes to display.)

6.10 Configuring Oracle Distributed Document Capture

This section covers the following topics:

- About Document Scanning Using Oracle Distributed Document Capture

- Oracle Distributed Document Capture and Related Components Requirements

- Configuring Oracle Distributed Document Capture For the Adapter

- Configuring Content Server for Distributed Document Capture Via Adapter

- Testing the Oracle Distributed Document Capture Via Adapter Configuration

> **Note:**
>
> For installation requirements specific to Oracle Distributed Document Capture use with this adapter, see Oracle Distributed Document Capture and Related Components Requirements.

6.10.1 About Document Scanning Using Oracle Distributed Document Capture

The Oracle Distributed Document Capture application enables an application such as the adapter to direct it to scan a document and pass in document index values. This allows users to scan documents or import scanned image files from the Managed Attachments page and attach them to the selected business application record.

When configured for the adapter, document scanning works as follows:

- A **Scan** button is added to the Managed Attachments page. The user clicks the button, and selects options such as a **document classification**, which is assigned to an Oracle Distributed Document Capture scan profile. For example, the user might select a classification of *Identity Documents* to scan a photocopy of a driver's license or passport. (An Oracle Distributed Document Capture scan profile specifies scanning, importing, and indexing settings.) The user also specifies whether the document should be shared, and if so the user specifies a security group for the shared document from those to which the user has access.

- When the user clicks the **Scan Document** button, Oracle Distributed Document Capture's remote client launches in a new window, automatically authenticates and logs in the user (if configured), and passes in parameters such as the scan profile to use and business application entity values for later attachment.

- Within the Oracle Distributed Document Capture client, the user reviews the document, makes changes as needed, completes any index fields configured in the scan profile, then sends the batch. Sending the batch commits the new document to Content Server 11g using a commit profile specified for the scan profile. (A Capture/Content Server commit profile specifies connection information and field mappings between Capture and Content Server metadata fields.)

- Upon successful sending, the user returns to the Managed Attachments page and refreshes the display to view the newly scanned document or imported scanned image file.

6.10.2 Oracle Distributed Document Capture and Related Components Requirements

This section lists requirements for implementing scanning and importing functionality with Oracle Distributed Document Capture. For complete system requirements, such as browsers, see the configuration and certification information at the following location:

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

> **Note:**
>
> The requirements listed in this section apply only if using Oracle Distributed Document Capture for optional scanning functionality.

Requirements include:

- Oracle Distributed Document Capture Release 10.1.3.5.1 or later, including the Oracle UCM 11g Commit Driver, which is provided for installation in this release. The Oracle UCM 11g Commit Driver is required to commit documents from Oracle Distributed Document Capture to Oracle WebCenter Content Server 11g.

- Internet Explorer 6 or above for end-users.

6.10.3 Configuring Oracle Distributed Document Capture For the Adapter

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

1. Optionally set Oracle Distributed Document Capture for automatic login.

   On the **System Settings** tab of the Distributed Document Capture Server Configuration application shown in Figure 6-17, select **Web Server Authenticated Access** from the Authentication Methods options. This setting enables the client to launch automatically without users needing to log in. For details, see the section on authentication in the *Installation Guide for Oracle Distributed Document Capture*.

   Figure 6-17   Distributed Document Capture Server Configuration, System Settings Tab
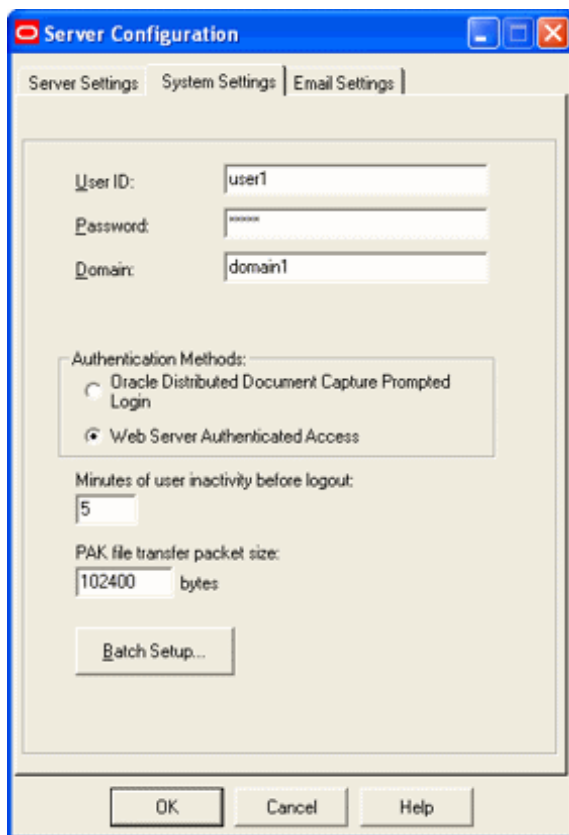
2. In Capture Administration, add index fields to a selected file cabinet for capturing values for new documents, as shown in Figure 6-18. For details, see the section on Capture Administration in the *Administrator's Guide for Oracle Distributed Document Capture*.

a. Create index fields for values to save with attached documents on the Content Server. For example, you might configure a Doc Type pick-list index field for users to select from standard document types.

b. Create the following alphanumeric index fields to contain the business application entity values and required fields:

- dAFApplication

- dAFBusinessObjectType

- dAFBusinessObject

- dSecurityGroup

- Title

Figure 6-18   Capture Administration, Index Fields
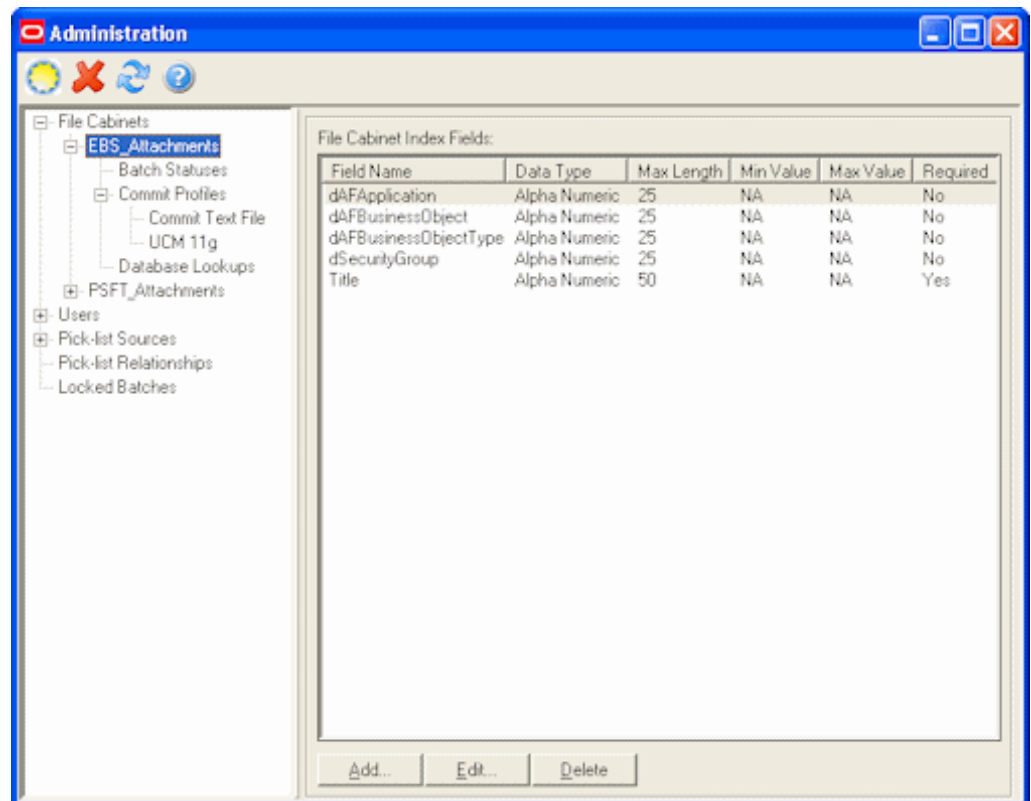
3. In Oracle Distributed Document Capture's Profile Administration, create a scan profile, as shown in Figure 6-19. You later associate this scan profile with one or more document classifications, so that when a user selects a classification, the associated scan profile's settings are used. For details, see the section on scan profiles in the *Administrator's Guide for Oracle Distributed Document Capture*.

a. On the General pane, select **2 - Scan and Index Documents** in the **Scanning Type** field. This scanning type includes indexing, and scans or imports pages into a single document in a batch. Specify a file cabinet and batch prefix.

Figure 6-19   Scan Profiles, Oracle Distributed Document Capture Profile Administration
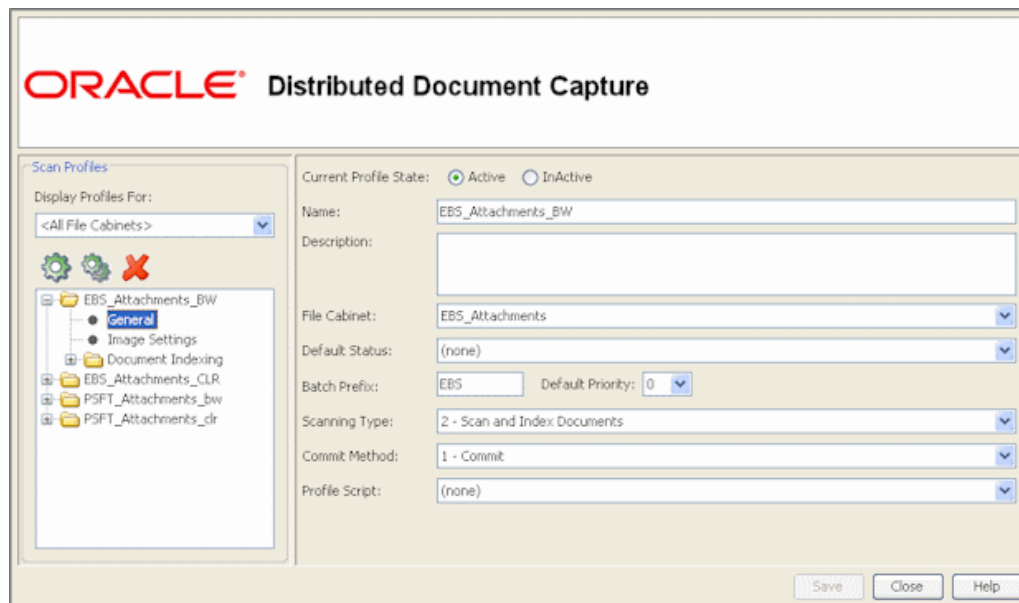
b. On the **Document Indexing** pane, move all fields to display to users to the Selected Fields box. It is recommended that you display the Title field for users to enter, and make the field required.

Note:

Typically, you would not select the business application entity fields (dAFBusinessObject, for example) for display to users. If you choose to display them, lock them on the Field Properties pane to prevent users from changing their values.

Figure 6-20   Scan Profiles, Oracle Distributed Document Capture Profile Administration
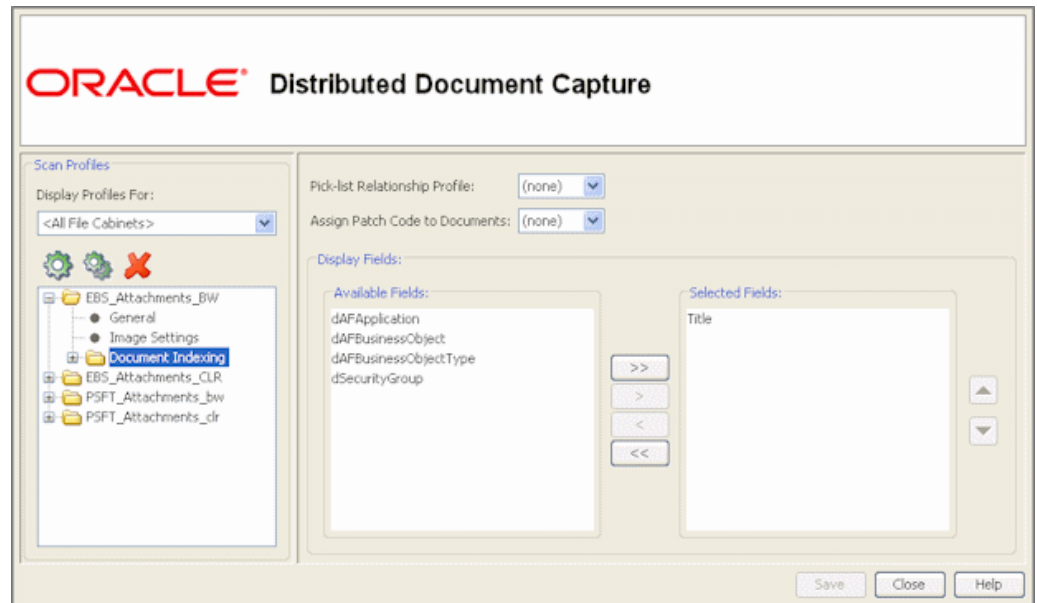
c. On the Field Properties, Auto Populate, and Database Lookup panes, configure any pick-lists, database lookups, or autopopulating needed for indexing. Save the scan profile.

4. In Capture Administration, create an Oracle UCM 11g (Content Server) commit profile to commit the scanned or imported documents to Content Server when users send a completed batch.

This commit profile specifies how to connect to the Content Server and how the business application and Capture values are passed to the Content Server. For information about creating Content Server commit profiles, see the section on commit profiles in the *Administrator's Guide for Oracle Distributed Document Capture*.

a. Select **Oracle UCM 11g Commit Driver** in the Commit Driver field. For this integration, it is recommended that you select **PDF - Image Only** in the Document Output Format field. Click the **Configure** button adjacent to the Commit Driver field.

Figure 6-21   Commit Profile Settings

b. On the **Login** tab, specify settings for logging in to the Content Server
    instance. (The other tabs become active after you log in.) Use the following
    format for the Content Server URL:

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

    The specified Content Server user must be assigned the AFWrite role for the
    AFDocuments security group. It is recommended that you create a special
    Capture user specific to the Managed Attachments solution for this purpose
    to ensure regular users do not gain write access to the AFDocuments security
    group, which is reserved for the Managed Attachments solution. For details
    about the AFDocuments group, see Configuring Document Security.

c. On the **Check-In** tab, choose **Assign values dynamically** and **By Field
    Mappings** fields, as shown in Figure 6-22. Specify how to name documents in
    the **Document Title** field.

Figure 6-22   Capture Administration, Check-In for Content Server Commit Settings

d. On the **Field Mappings** tab, click the **Add/Edit Custom Fields** button, and add the following custom fields in the Add/Edit Custom Fields dialog box shown in Figure 6-23:

- dAFApplication

- dAFBusinessObjectType

- dAFBusinessObject

Figure 6-23   Capture Administration, Add/Edit Custom Fields

Click **OK**. The custom fields you added now display on the **Field Mappings** tab shown in Figure 6-24. Map these custom fields to the corresponding index fields you created in step 2, as they are required to attach the new Content Server document to the business application entity. Also map other Capture fields whose values you want written to Content Server fields. Click **OK**.

e. Activate the business application-Content Server commit profile by clicking **Commit Profiles** from the Administration tree and selecting the **Active** check box for the commit profile.

Figure 6-24   Capture Administration, Field Mappings for Content Server Commit Settings
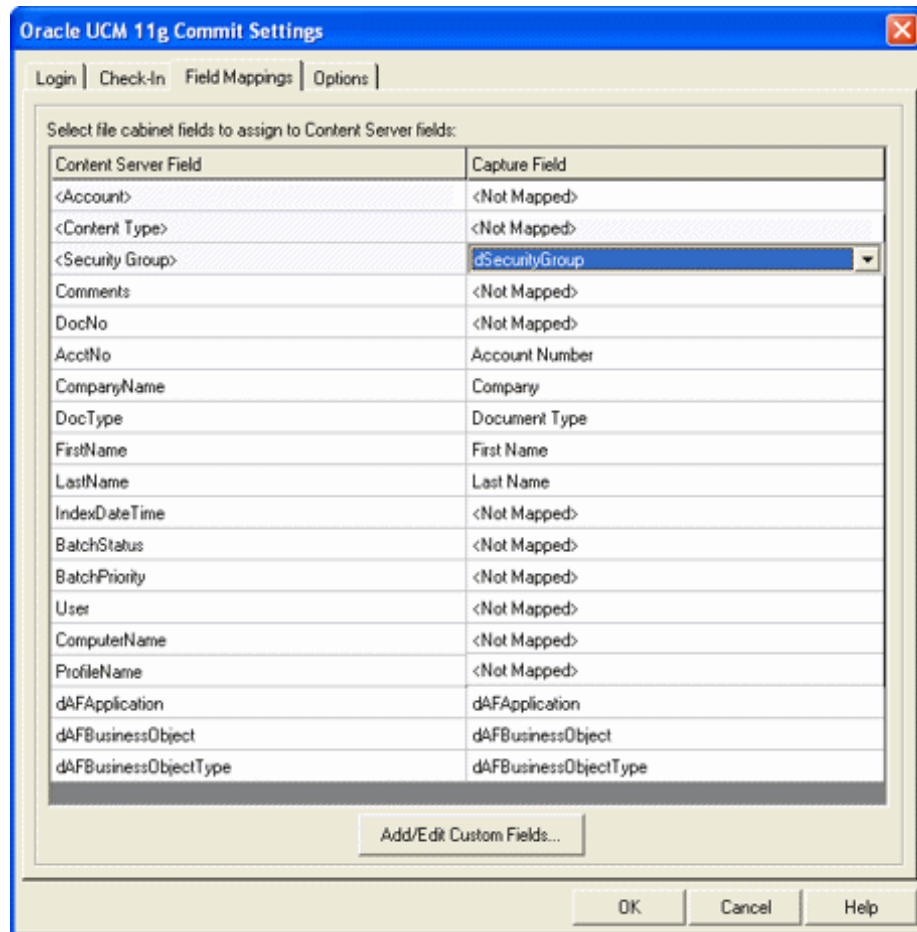
6.10.4 Configuring Content Server for Distributed Document Capture Via Adapter

Follow these steps to configure attachment scanning on the Content Server side.

1. On Content Server, edit the following configuration variables for Oracle Distributed Document Capture, if you have not done so. See Configuring Managed Attachments Settings.

    - `ODDCURLPath http://`
      `CaptureWorkspace=CaptureWorkspace&CaptureDriver=CAPTURE_IM`
      `PORT_DRIVER&CaptureSource=Import Source`

    - `ODDCScanAction ODDC Scan Action`

    - `AdapterAppScanBtnVisible true`

2. Restart Content Server.

3. On Content Server, configure document classification and scan types.

    a. From the Administration tray in Content Server, click the **Admin Applets** link.

    b. Select the Configuration Manager applet. The Configuration Manager displays.

    c. Click the Views tab, select the appropriate document classification view from the alphabetical list (**EBSDocClassView** for Oracle E-Business Suite, **PSFTDocClassView** for Oracle PeopleSoft, or **UniversalDocClassView** for Enterprise Application Adapter Framework), and click **Edit Values**.
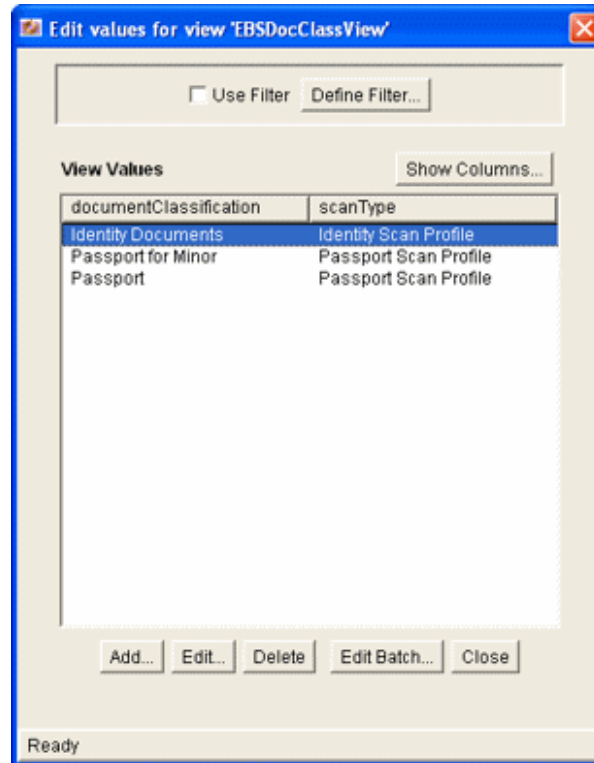
4. In the Edit Values dialog box, click **Add** and add document classifications and their corresponding scan profile. Note that documentClassification entries must be unique, but a scan profile can be used multiple times. Click **Close** when done.

5. From the Options menu, choose **Publish schema** to publish the data.

6.10.5 Testing the Oracle Distributed Document Capture Via Adapter Configuration

Follow these steps to test the configuration as an end-user. For more information, see the *Using the Application Adapters for Oracle WebCenter*.

1. Refresh the Managed Attachments results page. You should see a Scan button beside the New button.

2. Click the **Scan** button. In the Scan Document page, select a document classification and security group, and click **Scan Document**. The Oracle Distributed Document Capture client launches.

> **Note:**
>
> You can attach one document only via scanning or importing at a time.

Notice that the URL reflects the settings you specified to run the client. It also passes the scan profile, scan action (1 = Scan and 2 = Import), and index data containing the Oracle E-Business Suite or Oracle PeopleSoft entity values.

3. Within the Oracle Distributed Document Capture client, review, index, and send the document.

> **Note:**
>
> If you decide to cancel a document scan or import, you must close the Oracle Distributed Document Capture window and return to the Managed Attachments page and perform a new scan or import. This ensures that index values are properly set for attachments.

4. Return to the Managed Attachments page and click **Refresh**. The newly scanned document or imported scanned image file should be displayed in the list. (It may take a few minutes to display.)

6.11 Testing the Managed Attachments Solution

To test functionality, you can launch the Managed Attachments solution from the Command Driver page instead of a business application.

Follow these steps to use the command driver.

1. Display the command driver page using the following URL form:

```
http://IPM Host:IPM Port/imaging/faces/Driver.jspx
```

Note that you must log in to this page as the user set up in the CSF Credential for Managed Attachments (for example, weblogic), as described in Configuring a CSF Credential for Managed Attachments.

2. In the command driver options that display, complete the **Input Parameters** and **Request Parameters** fields. In the **UserName** field, enter the name of a valid user already configured in Content (for example, operations). See examples in Figure 6-25. Leave the **ConversationId** field blank.

Figure 6-25   Example Parameters for the Managed Attachments Driver Page

3. Click the **Execute Request** button.

   A conversation starts, as indicated by entries in the **conversationId** and other response fields.

4. Under **Response Commands**, click the **Execute Response** button.

   A new browser window opens and displays the Managed Attachments page.

6.12 Configuring Content Server Logging

For information about Content Server logging, see the *Administering Oracle WebCenter Content*.

6.13 Uninstalling Adapter Components on Content Server

Follow these steps to disable and then uninstall the following adapter components on the Content Server.

- AppAdapterCore
- AppAdapterEBS
- AppAdapterPSFT
- AppAdapterUniversal

For details about these components, see Enabling Content Server Components.

1. Log in to Content Server as an administrator.

2. Choose **Admin Server** from the Administration menu.

The Content Admin Server page displays.

3. Select the name of the Content Server instance from which to uninstall the component.

   The Content Admin Server *<instance_name>* page displays.

4. Click **Component Manager**.

   The Component Manager page displays.

5. Select an adapter component in the Enabled Components list and click **Disable**.

6. Repeat step 5, selecting and disabling the remaining adapter components.

7. Click **Start/Stop Content Server**.

   The Content Admin Server *<instance_name>* displays.

8. Click **Restart**.

9. Click **Component Manager**.

   The Component Manager displays.

10. Select an adapter component in the Uninstall Component field and click **Uninstall**. Click **OK** to confirm uninstalling the component.

11. Repeat step 10, uninstalling the remaining adapter components.

12. Select the link to return to the Component Manager.

    The Component Manager page displays.

13. Click **Start/Stop Content Server**.

    The Content Admin Server *<instance_name>* page displays.

14. Restart Content Server to apply the changes.

A

BPEL Imaging Solution Reference (*11g Release*)

This appendix describes the AXF, Oracle E-Business Suite, and Oracle PeopleSoft configuration tables used for the BPEL Imaging solution. It describes AXF commands and web user interface tools such as the Task List and Task Viewer, and provides example implementations.

This appendix covers the following topics:

- AXF Tables For the BPEL Imaging Solution

- AXF User Components for the BPEL Imaging Solution

- AXF Commands for the BPEL Imaging Solution

- Oracle E-Business Suite Forms Tables For the BPEL Imaging Solution

- Oracle PeopleSoft Tables For the BPEL Imaging Solution

A.1 AXF Tables For the BPEL Imaging Solution

This section describes the BPEL AXF tables.

> **Note:**
>
> If modifying AXF table values in a running system, either execute Clear DB Cache from the Driver page or restart the AXF application within the Application Server for the changes to take effect. For information about the Driver page, see *Installing and Configuring Oracle WebCenter Content*.

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

Figure A-1 BPEL AXF Configuration Tables (BPEL Imaging Solution)
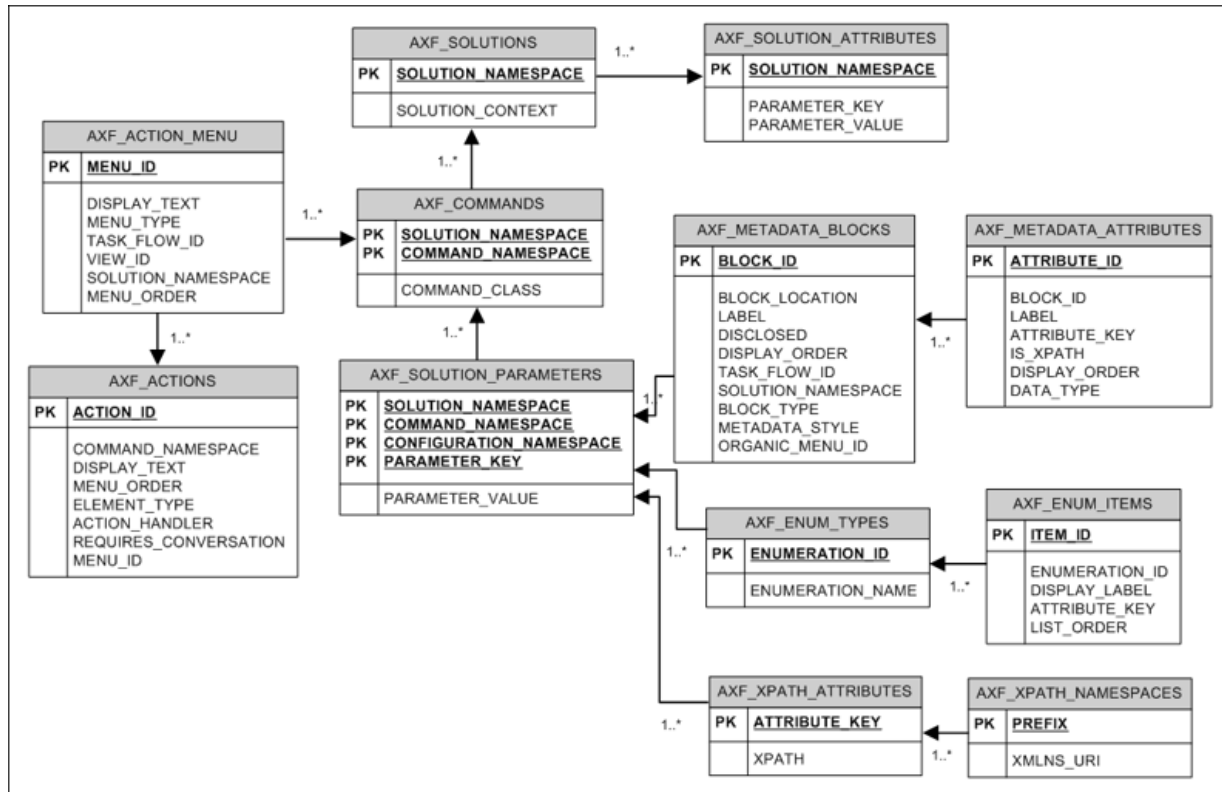
AXF Table	Description
AXF_SOLUTIONS Table AXF_SOLUTION_ATTRIBUTES Table	Define AXF solutions, and general parameters for infrastructure, services, and solutions.
AXF_COMMANDS Table	Define AXF commands within solutions.
AXF_SOLUTION_PARAMETERS Table	Define parameters for AXF commands and AXF user interface components.
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.
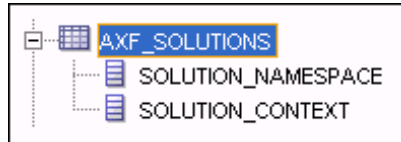
Column Description

Table A-1   Column Description for AXF_SOLUTIONS Table

Column	Description
SOLUTION_CONTEXT	Defines the JNDI name of the AXF solution implementation. (Currently, AxfCommandMediator is the only solution implementation.)
SOLUTION_NAMESPACE	Defines the AXF solution name.

Example Implementation

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

Table A-2   Example AXF_SOLUTIONS Table

SOLUTION_NAMESPACE	SOLUTION_CONTEXT
InvoiceProcessing	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
AccountDistributionApproval	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
SupplierMaintenance	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
RequestInvoiceInformation	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
AccountDistribution	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
InvoiceApproval	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote
Rescan	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

A.1.2 AXF_SOLUTION_ATTRIBUTES Table

This table defines general attributes for use by infrastructure, services, or solutions. For example, use this table to define error message addresses, connections, and conversation timeout settings.
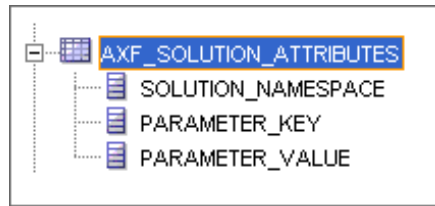
Column Description

Table A-3   Column Description for AXF_SOLUTION_ATTRIBUTES Table

Column	Description
SOLUTION_NAMESPACE	Specifies the solution namespace that uses this parameter.
PARAMETER_KEY	Name of the parameter. Used when retrieving the parameter value from the database. Parameters include: • 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 Configuring Autotask Locking. • USERNAME_PASS_THROUGH: When FALSE, allows the authenticated Oracle WebLogic Server user to perform tasks, such as BPEL tasks, rather than the user passed from Oracle E-Business Suite or Oracle PeopleSoft (TRUE, default). See Allowing Oracle WebLogic Server/Business Application Users to Perform Tasks. • TASKLIST_RANGESIZE: Specifies the number of tasks to return in the Task List. For example, you might change the number from 25 (default) to 10 tasks.
PARAMETER_VALUE	Value of the parameter.

Example Implementation

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

Table A-4   Example AXF_SOLUTION_ATTRIBUTES Table

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
InvoiceProcessing	BPEL_CONNECTION	axfconnection
InvoiceProcessing	CONNECTION_PROVIDER	oracle.imaging.axf.servicemodules.bpel.workflow.AxfWorkflowServiceModule
InvoiceProcessing	USE_AUTOTASK_LOCKING	TRUE
InvoiceProcessing	TASKLIST_RANGESIZE	10

A.1.3 AXF_COMMANDS Table

Use this table to define AXF commands and their java classes for each solution. Note that you configure each command's parameters in the AXF_SOLUTION_PARAMETERS Table.
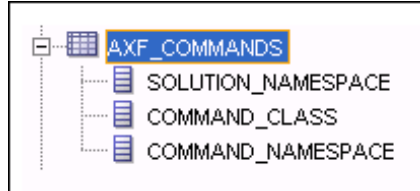
Column Description

Table A-5 Column Description for AXF_COMMANDS Table

Column	Description
SOLUTION_NAMESPACE	The name of the solution, as defined in the 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 AXF Commands for the BPEL Imaging Solution.

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

Table A-6 (Cont.) Example AXF_COMMANDS Table

COMMAND_CLASS	COMMAND_NAMESPACE
oracle.imaging.axf.commands.bpel.Complete TaskCommand	DeleteInvoice
oracle.imaging.axf.commands.bpel.Complete TaskCommand	DuplicateInvoice
oracle.imaging.axf.commands.bepl.Complete TaskCommand	Hold
oracle.imaging.axf.commands.bpel.Complete TaskCommand	InvoiceApprovalComplete
oracle.imaging.axf.commands.bpel.Complete TaskCommand	RequestInformationComplete
oracle.imaging.axf.commands.bpel.Complete TaskCommand	RescanComplete
oracle.imaging.axf.commands.bpel.Complete TaskCommand	SpecialistExceptionComplete
oracle.imaging.axf.commands.bpel.Complete TaskCommand	SupplierMaintenance
oracle.imaging.axf.commands.bpel.Complete TaskCommand	SupplierMaintenanceComplete
oracle.imaging.axf.commands.bpel.OpenTas kCommand	OpenTask
oracle.imaging.axf.commands.bpel.UpdateT askFromProcedureCommand	RetrieveUserList
oracle.imaging.axf.commands.bpel.UpdateT askCommand	AttachSupplemental
oracle.imaging.axf.commands.bpel.UpdateT askCommand	SaveInvoice
oracle.imaging.axf.commands.system.Redire ctCommand	AccountDistributionEdit
oracle.imaging.axf.commands.system.Redire ctCommand	AssignProcessingGroupEdit
oracle.imaging.axf.commands.system.Redire ctCommand	EditComments
oracle.imaging.axf.commands.system.Redire ctCommand	InvoiceApprovalEdit
oracle.imaging.axf.commands.system.Redire ctCommand	RequestInformationEdit
oracle.imaging.axf.commands.system.Redire ctCommand	RescanEdit

Table A-6   (Cont.) Example AXF_COMMANDS Table

COMMAND_CLASS	COMMAND_NAMESPACE
oracle.imaging.axf.commands.system.RedirectCommand	SearchIPM
oracle.imaging.axf.commands.system.RedirectCommand	SpecialistExceptionEdit
oracle.imaging.axf.commands.system.RedirectCommand	StartInvoiceProcessing
oracle.imaging.axf.commands.system.RedirectCommand	SupplierMaintenanceEdit
oracle.imaging.axf.commands.system.TerminateConversationCommand	TerminateConversation

A.1.4 AXF_SOLUTION_PARAMETERS Table

This table defines command parameters for the solution, AXF commands, and AXF user interface components.
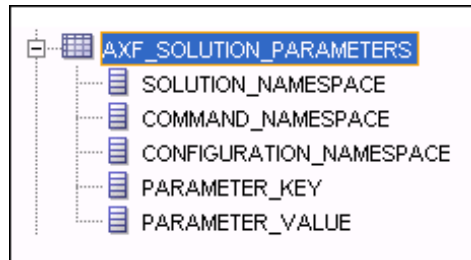
Column Description

Table A-7   Column Description for AXF_SOLUTION_PARAMETERS Table

Column	Description
SOLUTION_NAMESPACE	Identifies the solution namespace, as defined in the 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.

Table A-7   (Cont.) Column Description for AXF_SOLUTION_PARAMETERS Table

Column	Description
PARAMETER_KEY	Specifies the parameter key to use in the AXF command. For parameter details, see the specific command or web tool:
	User interface components:
	• Task List Web Tool
	• Task Viewer Web Tool
	• Enumeration Picker Web Tool
	• Identity Picker Web Tool
	• Comments
	AXF commands:
	• Open Task Command
	• Autotask Command
	• Release Task Command
	• Complete Task Command
	• Redirect Command
	• Update Task Command (BPEL)
	• Update Task From Procedure Command
	• Terminate Conversation Command
	• Validate Task Command
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.

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.Tas kList	CMD_OPEN_TAS K_BUTTON	OpenTask
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Tas kList	CMD_AUTO_TAS K_BUTTON	AutoOpenTask
StartInvoiceProcessing	oracle.imaging.axf.web.backing.Tas kList	DEFAULT_VIEW	(null)

Table A-8   (Cont.) Example AXF_SOLUTION_PARAMETERS Table for StartInvoiceProcessing Command

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
StartInvoiceProcessing	oracle.imaging.axf.web.backing.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 page. A common use is to display a Task Actions pane in the Task Viewer for users to click action links related to the displayed task, as shown in Figure A-2. Use the AXF_ACTIONS Table to define a specified menu's actions.
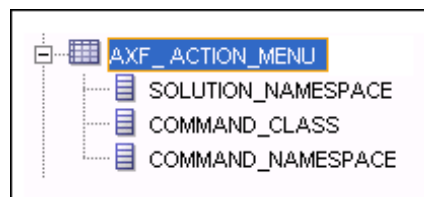
Column Description

Table A-9   Column Description for AXF_ACTION_MENU Table

Column	Description
MENU_ID	Specifies a primary key to the 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 page the menu is displayed and its type. (LEFT_SIDEBAR displays a side pane leftmost on the page.)
TASK_FLOW_ID	Specifies the active task flow with which to associate the menu. For example, to add a side menu to a task list display, specify a value of `axf-tasklist-tfd`, which identifies the page that shows the menu.

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

Column	Description
VIEW_ID	(Reserved for future use.)
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.

Example Implementation

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

Table A-10   Example AXF_ACTION_MENU

MENU_ID	DISPLAY_TEXT	MENU_TYPE	TASK_FLOW_ID	VIEW_ID	SOLUTION_NAME SPACE	MENU_ORDER
0	Task Actions	LEFT_SIDEBAR	axf-taskviewer-tfd	null	InvoiceProcessing	0

A.1.6 AXF_ACTIONS Table

This table defines the task actions used in an AXF solution. You can display action menus on AXF web pages such as the Task Viewer page (see Task Viewer Web Tool) or a Task List (see Task List Web Tool). This table links to the AXF_COMMANDS Table.
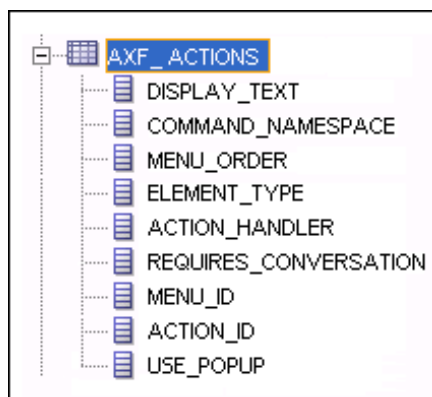
Column Description

Table A-11   Column Description for AXF_ACTIONS Table

Column	Description
DISPLAY_TEXT	Specifies the name of the action (link, for example) in the pane.

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

Column	Description
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.
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.

Example Implementation

The tables that follow provide an example AXF_ACTIONS Table.

Figure A-2   Task Viewer Page with Task Actions, Summary, and Comments Enabled

Fields not shown in Table A-12:

- ACTION_HANDLER=COMMAND

- REQUIRES_CONVERSATION=TRUE

Table A-12   Example AXF_ACTIONS Table

DISPLAY_TEXT	COMMAND_NAME SPACE	MENU_ ORDER	ELEMENT_ TYPE	MENU_ID	ACTION_ID
Invoice Approval	InvoiceApprovalEdit	1	LINK	0	AXF_ACTIONS_SEQ.NEXTVAL
Return to Task List	ReleaseTask	0	LINK	0	AXF_ACTIONS_SEQ.NEXTVAL
Skip Task	SkipTask	0	LINK	0	AXF_ACTIONS_SEQ.NEXTVAL
Complete Invoice	CompleteTask	0	LINK	0	AXF_ACTIONS_SEQ.NEXTVAL

A.1.7 AXF_XPATH_ATTRIBUTES Table

This table defines the XPATH attributes used in the AXF framework. This XPATH is mainly defined for payload elements.
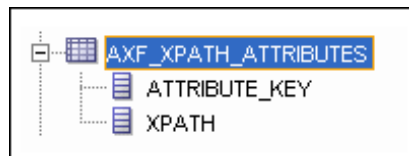
Column Description

Table A-13   Column Description for AXF_XPATH_ATTRIBUTES Table

Column	Description
ATTRIBUTE_KEY	Attribute key referenced in the Parameter Value column in the AXF_SOLUTION_PARAMETERS Table.
XPATH	XPATH expression used to locate the value in the payload.

Example Implementation

This example follows an XPATH attribute specified for an AssignProcessingGroupEdit command in the AXF_SOLUTION_PARAMETERS table. The PARAMETER_VALUE column contains an XPATH: prefix, indicating that the attribute value comes from the AXF_XPATH_ATTRIBUTES table.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-14   Example AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AssignProcessingGroupEdit	oracle.imaging.axf.web.EnumerationPicker	ATTRIBUTE_NAME	XPATH:InvoiceProcessing_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_Processi ngGroup	//task:processingGroup

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

Table A-16   Example AXF_XPATH_NAMESPACES Table

Prefix	XMLNS_URI
task	http://xmlns.oracle.com/bpel/workflow/task

A.1.8 AXF_XPATH_NAMESPACES Table

The following table defines the namespaces used for the XPATH attributes. It links to the AXF_XPATH_ATTRIBUTES Table.
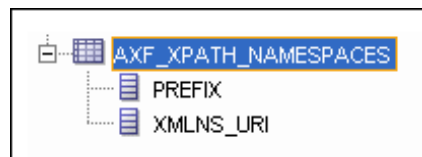
Column Description

Table A-17   Column Description for AXF_XPATH_NAMESPACES Table

Column	Description
PREFIX	The namespace prefix used in the XPATH.
XMLNS_URI	Provides a unique identifier.

Example Implementation

Table A-18   Example AXF_XPATH_NAMESPACES Table

Prefix	XMLNS_URI
task	http://xmlns.oracle.com/bpel/workflow/task
documentContent	http://xmlns.oracle.com/imaging/axf/ documentContentTypes
solution	http://xmlns.oracle.com/imaging/axf/solutionTypes
invoiceProcessing	http://xmlns.oracle.com/imaging/axf/InvoiceProcessing
xml	http://www.w3.org/XML/1998/namespace

A.2 AXF User Components for the BPEL Imaging Solution (*11g Release*)

This section covers the following topics:

- Solution Editor

- Task List Web Tool

- Task Viewer Web Tool

- Enumeration Picker Web Tool

- Identity Picker Web Tool

- Account Distribution Coding Form (Oracle E-Business Suite Only)

A.2.1 Solution Editor
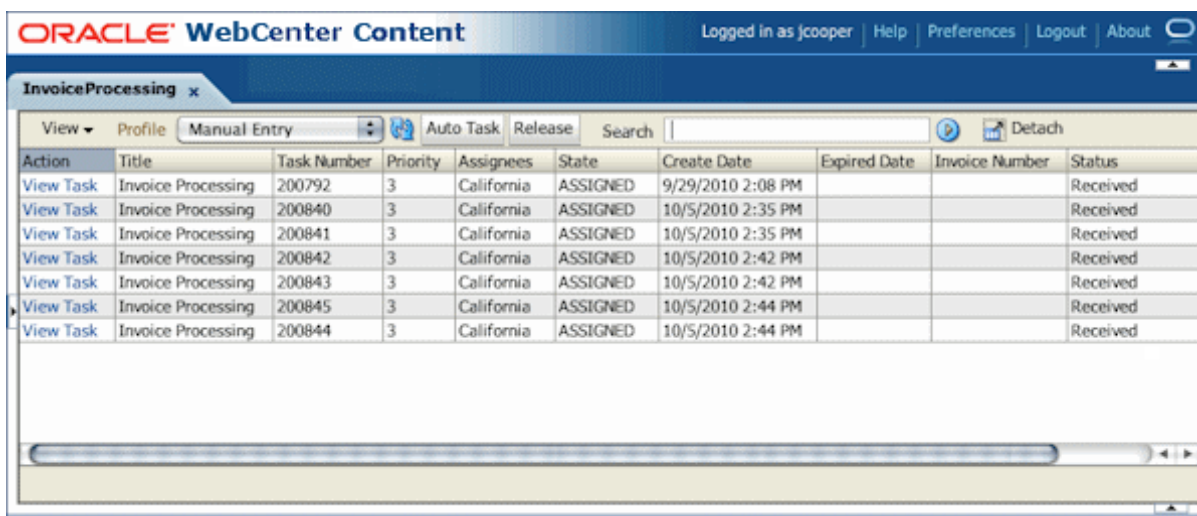
After initial configuration of a BPEL imaging solution (using a solution accelerator or the tables described in this appendix), you can use the Solution Editor in Imaging to quickly make changes to the user interface components.

For example, use the Solution Editor for such tasks as:

- Changing the profiles (BPEL views) available to users in the Task List

- Changing the task actions available to users in the Task Viewer

- Changing the metadata items and bottom panel tabs displayed in the Task Viewer

- Specifying the enumeration values available for specified enumerations on the Enumeration Picker page

A.2.2 Task List Web Tool

The AXF Task List web tool is a reusable web interface for displaying human workflow tasks controlled by an AXF solution.

Task List Features

- The **Profile** list uses standard BPEL views to restrict the task list view based on user/group, BPEL Process versions, and BPEL payload attribute values. Use the BPEL Imaging Solution Editor's **General** tab to edit the profile list, assign a default profile, and identify the uses of comment blocks within the solution.

- Users can select a task from the table by clicking its **View Task** link, which retrieves the workflow task from a specified BPEL server and process, claims it and displays it in the Task Viewer. After users complete the selected task, they return to the Task List. You can configure the number of tasks to return in the Task List at a time.

- When autotask mode is selected, the AXF solution automatically claims and opens tasks as users complete them, until all of a user's tasks have been processed or the user chooses to stop processing tasks by returning to the Task List. Users activate autotask mode by clicking **Auto Task**.

- Users can release an assigned task by clicking the **Release** button. The task is then released back into the pool of available tasks. If the user clicks Release but did not previously acquire the selected task, a message indicates that the task cannot be released.

- Users can sort tasks by clicking a column heading. They can also search for specific tasks using the **Search** field. For details, see the *Using the Application Adapters for Oracle WebCenter*.

Task List Parameters

Table A-19   Task List Parameters in AXF_SOLUTION_PARAMETERS Table

Parameter	Description
CMD_OPEN_TASK_BUTTON	Specify a COMMAND_NAMESPACE to execute when a user clicks the View Task link on the Task List web page.
CMD_AUTO_TASK_BUTTON	Specify a COMMAND_NAMESPACE to execute when a user clicks the Auto Task button on the Task List web page.
NO_OF_LINES	Specify the maximum number of tasks to display before displaying multiple pages. To configure the number of tasks to return in the Task List, use the TASKLIST_RANGESIZE parameter in the AXF_SOLUTION_ATTRIBUTES Table.
VIEW_LIST	Specify the list of views (defined in the Human workflow system) displayed to users in the Profile field.
DEFAULT_VIEW	Specify the default profile. If used with the VIEW_LIST parameter, this value must also be listed in the VIEW_LIST value.

Example Implementation

This example defines the StartInvoiceProcessing command for the Invoice Processing solution. The first row uses the Redirect Command to display the task list. The remaining rows define the task list's behavior.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-20   Example Task List Parameters in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
StartInvoiceProcessing	oracle.imaging.axf.commands.bpel.RedirectCommand	REDIRECT_URL	taskflow://WEB-INF/taskflows/axf-tasklist-tfd.xml#axf-tasklist-tfd
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	CMD_OPEN_TASK_BUTTON	OpenTask
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	CMD_AUTO_TASK_BUTTON	AutoOpenTask
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	DEFAULT_VIEW	(null)
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	SHOW_INBOX	FALSE
StartInvoiceProcessing	oracle.imaging.axf.web.backing.TaskList	VIEW_LIST	North Invoice Processing Group, South Invoice Processing Group, East Invoice Processing Group, West Invoice Processing Group, My Holds, Exceptions

A.2.3 Task Viewer Web Tool

The AXF Task Viewer web tool is a reusable web interface that displays the content associated with a Human Workflow Task. In a typical configuration, a business user displays the Task Viewer on one monitor, and keys values shown in the image into a business application on another monitor.

Once configured, use the BPEL Imaging Solution Editor to make the following changes to the Task Viewer:

- Edit the display label of the Action menu, define the menu item order, hide or display menu items and edit menu item labels.

- Edit the metadata block label, change the metadata item order, hide or display metadata items, edit metadata item labels, and change the dynamic data table table (bottom panel) display.

You can also customize the web page through database configuration.
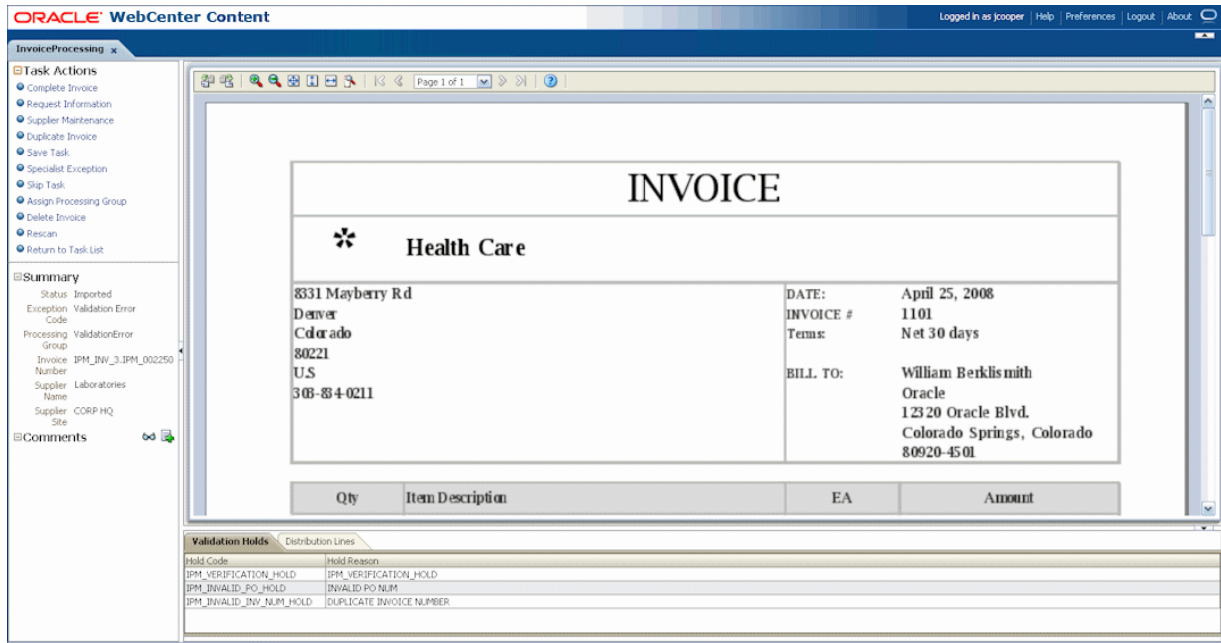
Task Viewer Features

- Users view image documents in the Image Viewer pane, using either the basic or advanced Imaging viewer mode. The Task Viewer uses the Imaging viewer tool to render image documents.

- If configured, users can select actions in the side Task Actions pane, which invoke a solution's AXF commands. You enable the Task Actions pane in the AXF_ACTION_MENU Table, configure the action links to invoke AXF commands in the AXF_ACTIONS Table, and the commands themselves in the AXF_COMMANDS Table. If autotask mode is selected, users disable it by returning to the Task List, typically by clicking a **Return to Task List** link in the Task Actions pane.

- If configured, users can view a Summary section that displays metadata values about the task. You configure these items for display in the AXF_METADATA_BLOCKS Table and AXF_METADATA_ATTRIBUTES Table. You can also configure the section's title and the task payload values displayed.

- If configured, users can view a Comments section that displays comment fragments and provides icons for displaying full comments or adding them for the task. You configure comments for display in the AXF_METADATA_BLOCKS Table.

- If configured, users can view a dynamic data table (bottom tabs) from the BPEL payload XML, such as General Ledger lines for an invoice processing solution. You configure the table in the AXF_METADATA_BLOCKS Table and its data lines in the AXF_METADATA_ATTRIBUTES Table. For more information, see Configuring or Disabling a Dynamic Data Table.

Configuring the Task Viewer

You configure the Task Viewer in the following tables:

- AXF_SOLUTION_PARAMETERS Table

- AXF_ACTION_MENU Table

- AXF_ACTIONS Table

- AXF_METADATA_BLOCKS Table

- AXF_METADATA_ATTRIBUTES Table

A.2.3.1 AXF_METADATA_BLOCKS Table

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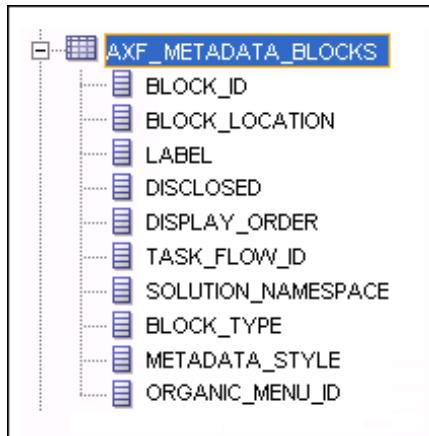
Column Description

Table A-21   Column Description for AXF_METADATA_BLOCKS Table

Column	Description
BLOCK_ID	Identifies the row in the database. Links to the 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*).
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).

Table A-21   (Cont.) Column Description for AXF_METADATA_BLOCKS Table

Column	Description
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 Formatting XML Data For a Dynamic Data Table. Note that this block displays only if there is data available. To hide the bottom panel, see Hiding the Bottom Panel in the Task Viewer.
	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.

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_N AMESPACE	BLOCK _TYPE	METADAT A_STYLE
1	LEFT_SIDEBAR	Summary	1	axf-taskviewer-tfd	InvoiceProcessing	META DATA	null
2	LEFT_SIDEBAR	Comments	2	axf-taskviewer-tfd	InvoiceProcessing	COMM ENT	null
3	BOTTOM_PANEL	GL Lines	3	axf-taskviewer-tfd	InvoiceProcessing	META DATA	TABLE

A.2.3.2 AXF_METADATA_ATTRIBUTES Table

This table defines the labels and values to show in metadata sections specified in the AXF_METADATA_BLOCKS Table. It also defines how attribute values are retrieved for display using XPath attributes.
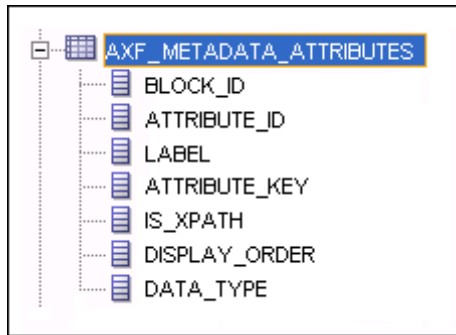
Column Description

Table A-23   Column Description for AXF_METADATA_ATTRIBUTES Table

Column	Description
BLOCK_ID	References the 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 Update Task Command (BPEL)) 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.

Example Implementation

Table A-24 defines metadata labels and values displayed in a Task Viewer's Summary section, as shown in Figure A-2. For another example, see Configuring or Disabling a Dynamic Data Table.

Columns not shown:

DATA_TYPE=String

Table A-24   Example AXF_METADATA_ATTRIBUTES Table for Summary Section

BLOCK_ID	ATTRIBUTE_ID	LABEL	ATTRIBUTE_KEY	IS_XPATH	DISPLAY_ORDER
1	1	Status	InvoiceProcessing_Status	TRUE	0
1	2	Exception Code	InvoiceProcessing_Exception Code	TRUE	1
1	3	Processing Group	InvoiceProcessing_Processing Group	TRUE	2
1	4	Invoice Number	InvoiceProcessing_InvoiceNumber	TRUE	3
1	5	Supplier Name	InvoiceProcessing_SupplierName	TRUE	4
1	6	Supplier Site	InvoiceProcessing_SupplierSiteName	TRUE	5

A.2.3.3 Comments

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

You can specify whether the Comments field is displayed on the **General** tab of Imaging's Solution Editor. You can display comments on the Task Viewer, Identity Picker, and Enumeration Picker pages.
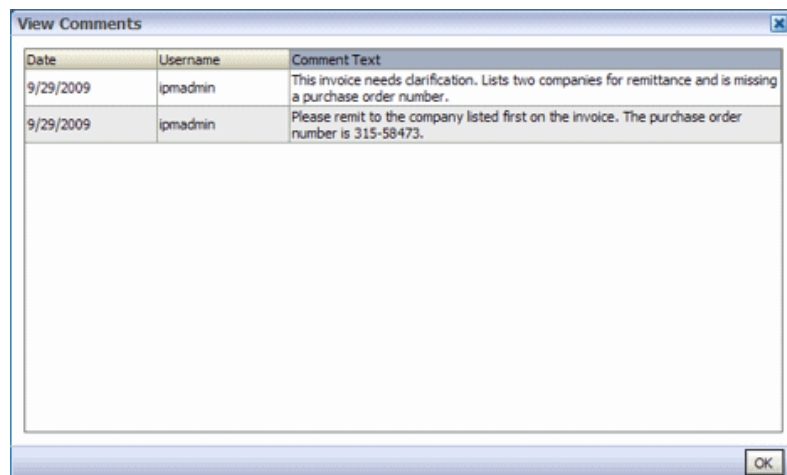
A.2.4 Enumeration Picker Web Tool

The Enumeration Picker web tool enables users to select a choice from a list of values configured in AXF tables. For example, the Enumeration Picker shown in the graphic that follows displays a Processing Group dropdown field containing North, South, East, and West values.
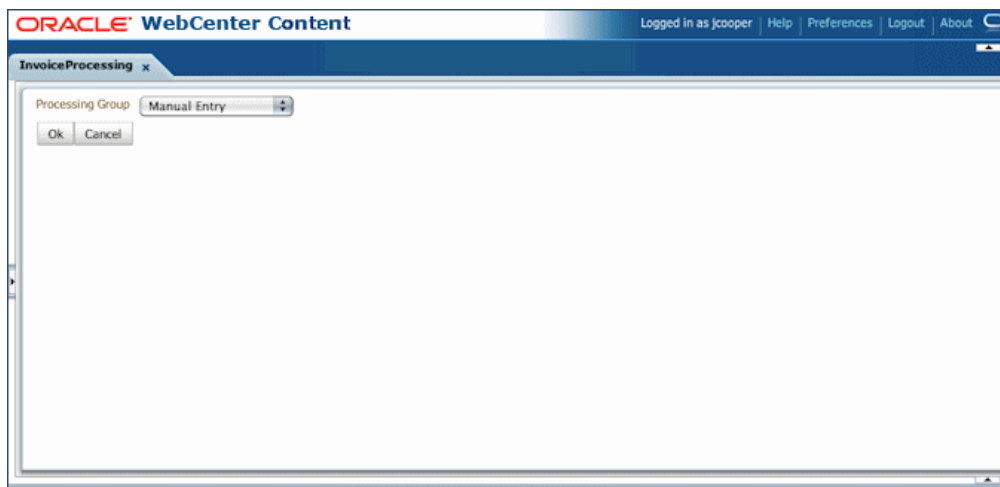
After the user selects a value, the value is updated into the BPEL payload before the configured command executes, typically a command to return to the Task Viewer or to complete the command.

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.

After configuring enumerations, you can edit them in Imaging's Solution Editor. On the Enumeration tab, add, delete, and reorder enumerations, or specify their available values.

A.2.4.1 Enumeration Picker Parameters

Table A-25   Enumeration Picker Parameters in AXF_SOLUTION_PARAMETERS Table

Parameter	Description
LOV_REFERENCE	This list of values reference links to the 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 Update Task Command (BPEL).
	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.

Table A-25   (Cont.) Enumeration Picker Parameters in
AXF_SOLUTION_PARAMETERS Table

Parameter	Description
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.2.4.2 AXF_ENUM_TYPES Table

This table defines Enumeration Pickers.
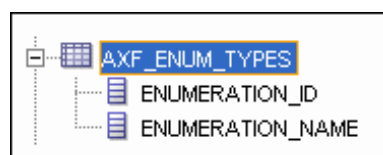
Column Description

Table A-27   Column Description for AXF_ENUM_TYPES Table

Column	Description
ENUMERATION_ID	Specify an ID for the enumeration picker.
ENUMERATION_NAME	Specify a name for the enumeration picker configuration.

Example Implementation

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

Table A-28   Example AXF_ENUM_TYPES Table

ENUMERATION_ID	ENUMERATION_NAME
1	ProcessingGroups
2	SupplierMaintenanceCodes
3	SpecialistExceptionCodes
4	RescanCodes

A.2.4.3 AXF_ENUM_ITEMS Table

This table defines a specified Enumeration Picker's values.
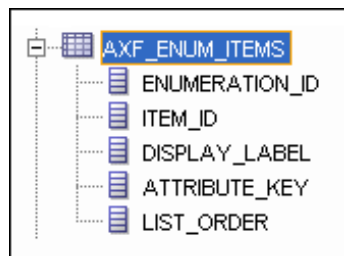
Column Description

Table A-29   Column Description for AXF_ENUM_ITEMS Table

Columns	Description
ENUMERATION_ID	Specify the picker's ID, as defined in the 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.2.5 Identity Picker Web Tool

The Identity Picker web tool enables users to select one or more users or groups from an identity store configured for BPEL. Typically, a related action is taken after choosing an identity; for example, a task is assigned or delegated. The action to take after selecting an identity is configured in the AXF_SOLUTION_PARAMETERS Table.

> **Note:**
>
> The command updates the task payload when the user clicks OK. The BPEL process is responsible for using this information to delegate the task.
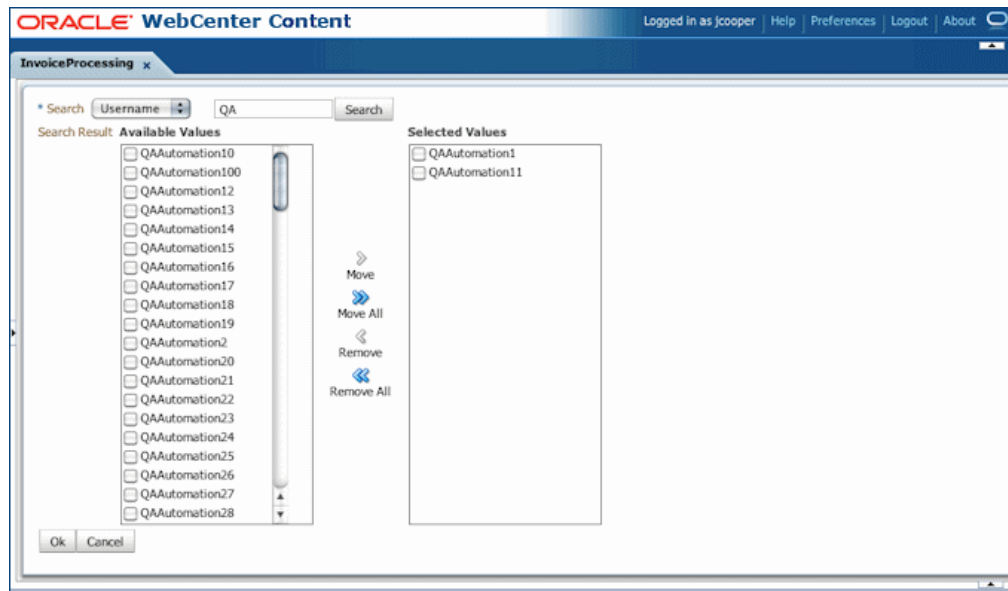
Identity Picker Parameters

Table A-31   Identity Picker Parameters in AXF_SOLUTION_PARAMETERS Table

Parameter Key	Description
CMD_ON_CANCEL	Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the Cancel button on the Identity Picker page.
CMD_ON_OK	Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the OK button on the Identity Picker page.
IDENTITY_FILTER	Define how the identity picker searches, where: • 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_FILTER_ATTRI BUTE	Define a wildcard search for the identity picker, where: • TRAILING: Adds an asterisk (*) to the end of the search value, as in `jc*` • LEADING: Adds an asterisk (*) to the start of the search value, as in `*cooper` • BOTH (default): Adds an asterisk (*) to the start and end of the search value, as in `*jc*` • NONE: No asterisks are added to the search value. This setting is useful for implementations where wildcard characters may cause searches to take a long time. **Note:** A null value for this parameter results in an asterisk added to the start and end of search values (the default setting).

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

Parameter Key	Description
IDENTITY_ATTRIBUTE	This attribute is updated in the BPEL task when a user clicks OK on the Identity Picker page. The Attribute value is a constant as defined under System Attributes; see Update Task Command (BPEL).
	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.

Example Implementation

This example shows an InvoiceApprovalEdit command that searches for user information stored in BPEL, and updates the BPEL task using an XPATH variable.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-32   Example Identity Picker Parameters in AXF_SOLUTION_PARAMETERS table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	IDENTITY_FILTER	USER
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	IDENTITY_FILTER_ATTRIBUTE	NONE
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	CMD_ON_CANCEL	OpenTask
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	IDENTITY_ATTRIBUTE	XPATH:InvoiceProcessing_InvoiceApprovalAssignment
InvoiceApprovalEdit	oracle.imaging.axf.web.backing.IdentityPicker	CMD_ON_OK	InvoiceApprovalComplete

A.2.6 Account Distribution Coding Form (Oracle E-Business Suite Only)

The AXF Account Distribution Coding Form is a reusable web interface for entering and selecting detailed account distribution information for an invoice. Figure A-3 shows the coding form used for non-PO invoices needing line item information. In this case, authorized users access this page from an Account Distribution task list, then key in account distribution codes.

Figure A-3   Example Account Distribution Coding Form

Important Points About the Account Distribution Coding Form

- The coding form is available for Oracle E-Business Suite only.

- The coding form performs lookups against the Oracle E-Business Suite system. A JDBC Data Source must be set up on the Oracle WebCenter Imaging WebLogic Managed Server to enable the lookups. Refer to the solution accelerator documentation for information on setting up this JDBC Data Source.

- The coding form is invoked via a solution accelerator, as described in Configuring the AXF Tables or Applying a Solution Accelerator. To use the coding form, you must deploy and configure a solution, along with supporting AXF commands and solution parameters.

- The buttons in the upper right portion of the form (Approve, Reject, Re-Assign, Save, Cancel, and Open Invoice) are configurable via the AXF tables.

The sections listed below provide general configuration information for the coding form.

- AXF_LOOKUPS Script for Coding Form Lookup Elements

- Example Account Distribution Coding Form Solution

- Example Supporting Commands for the Account Distribution Coding Form

- Example OpenTask and AutoOpenTask Commands

A.2.6.1 AXF_LOOKUPS Script for Coding Form Lookup Elements

The **AXF_LOOKUPS**.sql script creates lookup elements for the coding form. You must execute it as the APPS user in the Oracle E-Business Suite database under the APPS schema.

1. Connect to the APPS schema in the Oracle E-Business Suite database using the appropriate APPS user.

2. If needed, uninstall the existing coding form lookups package.

   You only need to perform this step if you are running an update/patch to an existing system that already has an AXF_LOOKUPS coding form lookups package installed.

   ```
   DROP TYPE AXF_LOOKUPS_SEGMENT_VALUE_COL;
   show errors
   DROP TYPE AXF_LOOKUPS_SEGMENT_OBJ;
   show errors
   DROP PACKAGE AXF_LOOKUPS;
   show errors
   ```

3. Execute the AXF_LOOKUPS script.

   The script is delivered as part of the Oracle E-Business Suite adapter. It is located in one of the following locations, depending on Oracle E-Business Suite release:

   For 12*c*

   - *MW_HOME/wccontent*/ucm/Distribution/EBSIntegration/R11/

   - *MW_HOME/wccontent*/ucm/Distribution/EBSIntegration/R12/

   For 11*g*

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

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

   Execute the script by entering:

   ```
   @AXF_LOOKUPS.sql
   ```

A.2.6.2 Example Account Distribution Coding Form Solution

Table A-33 illustrates an example solution for Account Distribution.

***Table A-33   Example AXF_SOLUTIONS Table *for Account Distribution Coding Form*

SOLUTION_NAMESPACE	SOLUTION_CONTEXT
AccountDistribution	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

A.2.6.3 Example Supporting Commands for the Account Distribution Coding Form

Table A-34 lists example AXF commands that support the Account Distribution coding form solution.

***Table A-34   Example AXF_COMMANDS Table *for Account Distribution Coding Form*

Table A-34   (Cont.) Example AXF_COMMANDS Table for Account Distribution Coding Form

SOLUTION_NAMESPACE	COMMAND_CLASS	COMMAND_NAMESPACE	Description
AccountDistribution	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AccountDistributionApprove	Creates a command for the coding form's Approve button.
AccountDistribution	oracle.imaging.axf.commands.bpel.ReleaseTaskCommand	AccountDistributionCancel	Creates a command for the coding form's Cancel button.
AccountDistribution	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AccountDistributionReject	Creates a command for the coding form's Reject button.
AccountDistribution	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AccountDistributionRequestInfo	Creates a command for the coding form's Request Information button.
AccountDistribution	oracle.imaging.axf.commands.system.RedirectCommand	AssignUser	Creates a command for the coding form's Re-Assign button.
AccountDistribution	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	AssignUserComplete	Creates a command to redirect users to the Identity Picker.
AccountDistribution	oracle.imaging.axf.commands.bpel.AutotaskCommand	AutoOpenTask	Creates a command for the autotask operation on the Task List.
AccountDistribution	oracle.imaging.axf.commands.bpel.OpenTaskCommand	OpenTask	Creates an OpenTask command link on the Task List.
AccountDistribution	oracle.imaging.axf.commands.system.RedirectCommand	StartAccountDistribution	Creates a command to redirect users from the Task List to the coding form.

A.2.6.4 Example OpenTask and AutoOpenTask Commands

Options for the OpenTask and AutoOpenTask commands are configured for the coding form's solution. Table A-35 shows an example of OpenTask options.

Fields not shown: SOLUTION_NAMESPACE and COMMAND_NAMESPACE

Table A-35   Example AXF_SOLUTION_PARAMETERS Table for Account Distribution Coding Form

CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE	Description
oracle.imaging.axf.web.backing.Coding	CMD_APPROVE	AccountDistributionApprove	COMMAND_NAMESPACE to execute when a user clicks the coding form's Approve button.

Table A-35   (Cont.) Example* AXF_SOLUTION_PARAMETERS Table *for Account Distribution Coding Form

CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE	Description
oracle.imaging.axf.web.backing.Coding	CMD_CANCEL	AccountDistributionCancel	COMMAND_NAMESPACE to execute when a user clicks the coding form's Cancel button.
oracle.imaging.axf.web.backing.Coding	CMD_REASSIGN	AssignUser	COMMAND_NAMESPACE to execute when a user clicks the coding form's Re-Assign button.
oracle.imaging.axf.web.backing.Coding	CMD_REJECT	AccountDistributionReject	COMMAND_NAMESPACE to execute when a user clicks the coding form's Reject button.
oracle.imaging.axf.web.backing.Coding	CMD_REQUEST_INFO	AccountDistributionRequestInfo	COMMAND_NAMESPACE to execute when a user clicks the coding form's Request Information button.
oracle.imaging.axf.web.backing.Coding	DISABLE_PROJECT	FALSE	A flag to disable the Project lookups box on the coding form.
oracle.imaging.axf.web.backing.Coding	READ_ONLY	TRUE	Specify if users can enter and edit values on the coding form (FALSE, the default) or view them as read-only values (TRUE).

A.3 AXF Commands for the BPEL Imaging Solution

BPEL AXF commands include:

- Open Task Command

- Autotask Command

- Release Task Command

- Complete Task Command

- Redirect Command

- Update Task Command (BPEL)

- Update Task From Procedure Command

- Terminate Conversation Command

- Validate Task Command

> **Note:**
>
> You can also deploy custom commands and chained commands to execute through AXF. See Deploying Custom Commands and Configuring Chained Commands and User Interface Components.

A.3.1 Open Task Command

This command acquires a task from BPEL (human work flow) for a given task ID; the specific task is likely selected from the task list. If the task can be acquired by the user, the command obtains the details of the task and displays the specified web page.

Open Task Command Parameters

Table A-36 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

Table A-36   Parameters for OpenTask Command

Parameter Key	Description
TASK_VIEW_URL	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)

Example Implementation

This example uses the OpenTask command to display the Task Viewer for the Invoice Processing solution.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-37   Example Open Task Command in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
OpenTask	oracle.imaging.axf.commands.bpel.OpenTaskCommand	TASK_VIEW_URL	taskflow://WEB-INF/taskflows/axf-taskviewer-tfd.xml#axf-taskviewer-tfd

A.3.2 Autotask Command

This command displays autotask mode, in which a new human workflow task is automatically claimed for the user. Also see Configuring Autotask Locking.

Autotask Command Parameters

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

Table A-38   Autotask Command Parameters in AXF_SOLUTION_PARAMETERS Table

Parameter Key	Description
TASK_VIEW_URL	Task flow returned in the response command upon executing this command.
CMD_ON_NO_TASKS	COMMAND_NAMESPACE to execute when there are no tasks.
BPEL_TRY_AUTO	Time in milliseconds between attempts to obtain the next task from the Human workflow system.

Example Implementation

This example uses the Autotask command to automatically claim tasks and display them in the Task Viewer for the Invoice Processing solution.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-39   Autotask Command Parameters in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
AutoOpenTask	oracle.imaging.axf.commands.bpel.AutotaskCommand	TASK_VIEW_URL	taskflow://WEB-INF/taskflows/axf-taskviewer-tfd.xml#axf-taskviewer-tfd
AutoOpenTask	oracle.imaging.axf.commands.bpel.AutotaskCommand	CMD_ON_NO_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.

Release Task Command Parameters

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

Table A-40   Release Task Command Parameters

Table A-40   (Cont.) Release Task Command Parameters

Parameter Key	Description
CMD_AUTOTASK_OFF	Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is off.
CMD_AUTOTASK_ON	Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is on.

Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-41   Example Release Task Commands in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
SkipTask	oracle.imaging.axf.commands.bpel.ReleaseTaskCommand	CMD_AUTOTASK_OFF	StartInvoiceProcessing
SkipTask	oracle.imaging.axf.commands.bpel.ReleaseTaskCommand	CMD_AUTOTASK_ON	AutoTaskOpen
ReleaseTask	oracle.imaging.axf.commands.bpel.ReleaseTaskCommand	CMD_AUTOTASK_OFF	StartInvoiceProcessing
ReleaseTask	oracle.imaging.axf.commands.bpel.ReleaseTaskCommand	CMD_AUTOTASK_ON	StartInvoiceProcessing

A.3.4 Complete Task Command

The Complete Task command updates the list of attributes and outcome for a specified task in the human task workflow. This command also takes the parameters defined for the Update Task Command (BPEL).

In addition, the Complete Task command can update BPEL payload attribute values using request parameters to the command. You can also configure this command with actions to execute after it is complete, using CMD_AUTOTASK_ON and CMD_AUTOTASK_OFF parameters.

Complete Task Command Parameters

Table A-42 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

Table A-42   CompleteTask Command Parameters

Parameter Key	Description
OUTCOME	Specify the outcome defined for the human work flow system. APPROVE and REJECT are available by default in any BPEL process; the process designer can create others.
CMD_AUTOTASK_ON	Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is on.
CMD_AUTOTASK_OFF	Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is off.

Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-43   Example Complete Task Command in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
DeleteInvoice	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	CMD_AUTOTASK_OFF	StartInvoiceProcessing
DeleteInvoice	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	CMD_AUTOTASK_ON	AutoOpenTask
DeleteInvoice	oracle.imaging.axf.commands.bpel.CompleteTaskCommand	OUTCOME	DELETE_INVOICE

A.3.5 Redirect Command

The Redirect command redirects the browser to an AXF web tool or other external URL. The request parameters valid for internal URLs only include:

- CID (Conversation ID)

- PID (ParameterSet ID)

Store any user defined request parameters as part of the PID.

The command returns the URL in the response command.

Table A-44 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

Redirect Command Parameters

Table A-44   RedirectCommand Parameters

Parameter Key	Description
REDIRECT_URL	This URL is returned in the response command upon executing this command. It is either: • 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 website and all request parameters are appended in the URL.

Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-45   Example Redirect Command in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
StartInvoiceProcessing	oracle.imaging.axf.commands.system.RedirectCommand	EXTERNAL	FALSE

Table A-45   (Cont.) Example Redirect Command in AXF_SOLUTION_PARAMETERS Table

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

A.3.6 Update Task Command (BPEL)

The Update Task command can update one of the following: the list of attributes in the BPEL task, values in the XML payload using XPATH, or system attributes. (For an XPATH example, see the section below on Example Implementation.)

You can create your own parameter keys for the Update Task command and use either a system attribute or an XPATH for the parameter value. AXF searches the request parameters and finds all the values that match the parameter keys (besides outcome), and pulls parameter keys for the list of attributes to use in that task payload.

To update a non-payload attribute in the BPEL task, use a system attribute from those listed below. For example, the UpdateTask command can take the value of outcome (defined as PARAMETER_KEY) from the request parameter and update the OUTCOME (defined as PARAMETER_VALUE) attribute value in the task.

Update Task Command Parameters

Table A-46   Parameters for UpdateTaskCommand

Parameter Key	Description
OUTCOME	Specify the outcome defined for the human work flow system. APPROVE and REJECT are available by default in any BPEL process; the process designer can create others.

System Attributes

Following are the system attributes:

- ACQUIREDBY

- APPROVERS

- ASSIGNEDDATE

- ASSIGNEDGROUP //Cannot be updated

- ASSIGNEDUSER //Cannot be updated

- CREATEDATE

- CREATOR

- DATEATTRIBUTE1-DATEATTRIBUTE5

- EXPIREDDATE

- ENDDATE

- FORMATTRIBUTE1-FORMATTRIBUTE5

- FROMUSER

- NUMBERATTRIBUTE1-NUMBERATTRIBUTE5

- OUTCOME

- OWNERGROUP

- OWNERUSER

- PRIORITY

- STATE

- TASKID

- TASKNUMBER //Cannot be updated

- TITLE

- TASKDEFINITIONNAME

- TEXTATTRIBUTE1-TEXTATTRIBUTE10

- UPDATEDBY

- URLATTRIBUTE1 - URLATTRIBUTE5

Example Implementation

This example shows two attributes updated by the same comand_namespace, UpdateHelloBPEL. For more information about HelloBPEL, see *Installing and Configuring Oracle WebCenter Content*.

Fields not shown: SOLUTION_NAMESPACE=HelloBPEL

Table A-47   Example UpdateTaskCommand Parameters in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UpdateHelloBPEL	oracle.imaging.axf.commands.bpel.UpdateTaskCommand	String1	XPATH:HelloBPEL_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. See sections below for an example implementation and for an example stored pl/sql procedure.

Update Task From Procedure Command Parameters

Table A-48   Parameters for UpdateTaskFromProcedure Command

Parameter Key	Description
XPATH_DATASTRING	Specifies an XPATH variable contained in the AXF_XPATH_ATTRIBUTES Table that refers to the XPATH where the list of returned data is stored.

Table A-48   (Cont.) Parameters for UpdateTaskFromProcedure Command

Parameter Key	Description
XPATH_MESSAGESTRING	Specify an XPATH variable to allow the UpdateFromStoredProcedure function to write data to the BPEL payload for communicating basic status or error codes encountered during execution of the function (axfretrieveuserlist).
CMD_NO_DATA	Specifies the command to execute if no results return from the pl/sql function.
CMD_DATA	Specifies the command to execute if results return from the pl/sql function.
CMD_ERROR	Specifies the command to execute if an error is returned from the pl/sql function.
JNDI_DS	Specifies the name of the JNDI data source, configured on the Application Server, to use for execution of the pl/sql function.
PLSQL_PROC	Specifies the name of the pl/sql function to call.

Example Implementation

This example uses the Update Task From Procedure command to call a stored pl/sql procedure called AXFRETRIEVEUSERLIST using a data source (EBSDS). AXFRETRIEVEUSERLIST retrieves the invoice ID, queries for the invoice amount for that transaction, and based on that amount, returns a set of users for invoice approval.

Table A-49   AXF_SOLUTIONS Table for UpdateTaskFromProcedureCommand Example

SOLUTION_NAMESPACE	SOLUTION_CONTEXT
InvoiceProcessing	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

Table A-50   AXF_COMMANDS Table for UpdateTaskFromProcedureCommand Example (Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing)

COMMAND_CLASS	COMMAND_NAMESPACE
oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	RetrieveUserList

Table A-51   AXF_SOLUTION_PARAMETERS Table for UpdateTaskFromProcedureCommand Example (Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing)

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
RetrieveUserList	oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand	XPATH_DATASTRING	XPATH:InvoiceProcessing_InvoiceApproval Assignment

Table A-51 (Cont.) AXF_SOLUTION_PARAMETERS Table for UpdateTaskFromProcedureCommand Example (Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing)

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
RetrieveUserList	oracle.imaging.axf.commands.bpel. UpdateTaskFromProcedureCommand	XPATH_MESSAGE STRING	*<INSERT: an XPATH variable to use for communicating status through the payload>*
RetrieveUserList	oracle.imaging.axf.commands.bpel. UpdateTaskFromProcedureCommand	CMD_DATA	InvoiceApprovalEdit
RetrieveUserList	oracle.imaging.axf.commands.bpel. UpdateTaskFromProcedureCommand	CMD_NO_DATA	CompleteInvoice
RetrieveUserList	oracle.imaging.axf.commands.bpel. UpdateTaskFromProcedureCommand	CMD_ERROR	StartInvoiceProcessing
RetrieveUserList	oracle.imaging.axf.commands.bpel. UpdateTaskFromProcedureCommand	JNDI_DS	jdbc/EBSDS
RetrieveUserList	oracle.imaging.axf.commands.bpel. UpdateTaskFromProcedureCommand	PLSQL_PROC	AXFRETRIEVEUSERLIST

In the AXF_XPATH_ATTRIBUTES table that follows, the corresponding XPATH column displays the XPATH expression used to locate the value in the payload.

Table A-52 AXF_XPATH ATTRIBUTES Table for UpdateTaskFromProcedureCommand Example

ATTRIBUTE_KEY	XPATH
InvoiceProcessing_Invoice ApprovalAssignment	//task:InvoiceApprovalAssignment

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

Table A-53 AXF_XPATH_NAMESPACES Table for UpdateTaskFromProcedureCommand Example

Prefix	XMLNS_URI
task	http://xmlns.oracle.com/bpel/workflow/task

Example PL/SQL Procedure For Updating the Task Payload

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

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

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

BEGIN

    rtnCode := 0;  -- execute CMD_NO_DATA
    -- rtnCode := -1; -- execute CMD_ERROR
    pmsgstring := ''; -- empty msg string
    v_parser := xmlparser.newParser;
    xmlparser.parseBuffer(v_parser, xmlPayload);
    v_doc := xmlparser.getDocument(v_parser);
    xmlparser.freeParser(v_parser);

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

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

    if invoiceamount > 10000 then
      pdatastring := 'jlondon';
      rtnCode := 1;  -- execute CMD_DATA
      pmsgstring := 'Additional approval required due to invoice amount.';
    else
      pdatastring := 'jcooper,mtwain';
      rtnCode := 1;  -- execute CMD_DATA
      pmsgstring := 'No further approval is required.';
    end if;

    RETURN rtnCode;

END;
```

Follow these steps to use this example.

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

2. Install the stored procedure on the Oracle E-Business Suite database instance. The procedure must be run as the Apps user.

3. On the AXF instance and as the AXF user, run the following command to update the AXF_ACTIONS table to insert the new RetrieveUserList Command into the execution path:

```
UPDATE AXF_ACTION SET COMMAND_NAMESPACE = 'RetrieveUserList' where DISPLAY_TEXT = 'Invoice
Approval' and COMMAND_NAMESPACE = 'ValidateInvoiceApprovalEdit'
```

A.3.8 Terminate Conversation Command

The Terminate Conversation Command is used by an external client to terminate a conversation with AXF.

A.3.9 Validate Task Command

The Validate Task command validates BPEL system attribute data or BPEL payload data, and based on validation results, executes a subsequent command.

Table A-54 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

Validate Task Command Parameters

Table A-54   ValidateTaskCommand Parameters

Parameter Key	Description
ATTRIBUTE_TO_VALIDATE	Specifies the attribute in the BPEL task to validate. This can be either a system attribute or a payload attribute. If specifying a payload attribute, use a prefix value of *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.

Example Implementation

The following configuration validates that the invoice has been saved (Invoice Transaction ID is not 0). If it is 0, the command reports the error message specified in the FAIL_MESSAGE parameter. For steps to add a validation, see Adding a Validation.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A-55   Example ValidateTask Command in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	ATTRIBUTE_TO_VALIDATE	XPATH:InvoiceProcessing_TransactionID
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	CMD_ON_PASS	CompleteInvoice
ValidateTransactionID	oracle.imaging.axf.commands.bpel.ValidateTaskCommand	REGULAR_EXPRESSION	[^0]

Table A-55   (Cont.) Example ValidateTask Command in AXF_SOLUTION_PARAMETERS Table

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
ValidateTransactionID	oracle.imaging.axf.commands.bpel. ValidateTaskCommand	FAIL_MESSAGE	Please save the transaction before completing the task.

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

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

- About the Oracle E-Business Suite AXF Tables For the BPEL Imaging Solution

- AXF_CONFIGS Table (Oracle E-Business Suite)

- AXF_COMMANDS Table (Oracle E-Business Suite)

- AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite)

- AXF_PROPERTIES Table (Oracle E-Business Suite)

Note:

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

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

The following diagram shows how the tables used by the Oracle E-Business Suite system in AXF solutions are related.
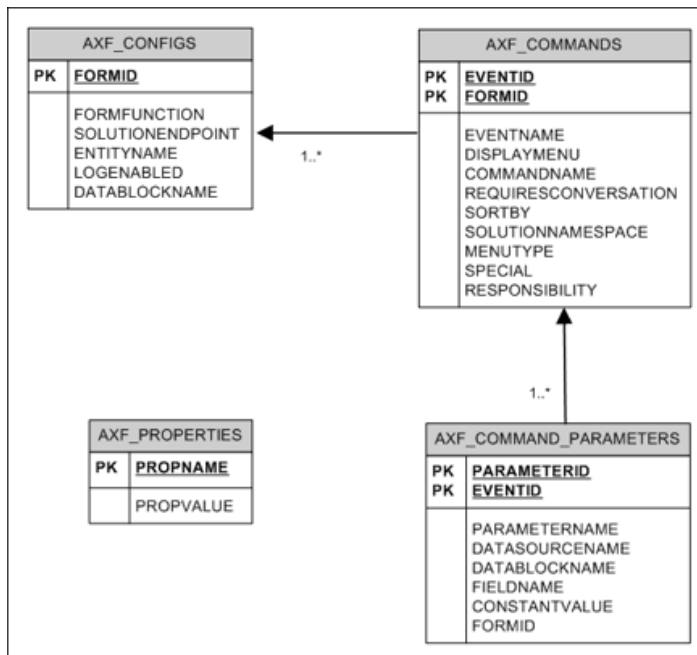
A.4.2 AXF_CONFIGS Table (Oracle E-Business Suite)

Use the AXF_CONFIGS table to enable the AXF solution on various Oracle E-Business Suite Forms. This table provides a fine level of granularity when selecting which Forms to AXF-enable, up to the Data Block level.

Form events are automatically invoked when an action is performed on an Oracle E-Business Suite Form. The AXF_CUSTOM.pll makes all events available, such as POST-INSERT, for customization. You can decide which events to use, and how and when to use them.

When an action occurs, the customized code launches the specified solution and command configured for the event. In the case where the same form is being reused, such as Invoice Entry and Invoice Query, FORMFUNCTION and DATABLOCKNAME uniquely identify each Form.

> **Note:**
>
> You can enable all datablocks on a form rather than a specific datablock, by specifying `AXF_DEFAULT` for the DATABLOCKNAME parameter. This allows AXF to be notified whenever a POST-INSERT event occurs for the form, regardless of its datablock. Note, however, that setting the DATABLOCKNAME parameter to AXF_DEFAULT enables specified ZOOM or SPECIAL commands on all pages related to the form. (Set ZOOM and SPECIAL commands in the AXF_COMMANDS Table (Oracle E-Business Suite).)

Column Description

Table A-56   Column Description for AXF_CONFIGS Table

Column Name	Description
FORMID	Specifies the primary key of the table.
FORMFUNCTION	Distinguishes each Oracle E-Business Suite Form based on the form's functionality.
SOLUTIONENDPOINT	Specifies a URL to AXF. This value should start as `https://` if SecureMode is on. See Securing Communications Through SSL (Oracle E-Business Suite).
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

Table A-56   (Cont.) Column Description for AXF_CONFIGS Table

Column Name	Description
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.

Example Implementation

This example defines that the entire Invoices Form is AXF-enabled. (Without the first row, the INV_SUM_FOLDER Data Block of the Invoices Form would be enabled.)

The last row in this example table shows the paperclip attachment feature enabled, by disabling the Managed Attachments solution. For more information, see Reenabling Paperclip Attachments (Oracle E-Business Suite and Imaging Only).

Fields not shown: LOGENABLED=YES

Table A-57   Example AXF_CONFIGS Table

FORMID	FORMFUNCTION	SOLUTIONENDPOINT	ENTITYNAME	DATABLOCKNAME
1	AP_APXINWKB	https://*ApplicationServerName:Port*/axf-ws/AxfSolutionMediatorService	AP_INVOICES	AXF_DEFAULT
2	AP_APXINWKB_SUMMARY_VIEW	https://*ApplicationServerName:Port*/axf-ws/AxfSolutionMediatorService	AP_INVOICES	INV_SUM_FOLDER
6	AP_APXINWKB_BATCHES	https://*ApplicationServerName:Port*/axf-ws/AxfSolutionMediatorService	AP_INVOICES	INV_SUM_FOLDER
7	AXF_MANAGED_ATTACHMENTS-DISABLED	https://*ApplicationServerName:Port*/axf-ws/AxfSolutionMediatorService	(null)	(null)

A.4.3 AXF_COMMANDS Table (Oracle E-Business Suite)

Use the AXF_COMMANDS table to describe the actions to take based on user activity. This table works with the AXF_CONFIGS Table (Oracle E-Business Suite).

Column Description

Table A-58   Column Description for AXF_COMMANDS Table

Table A-58   (Cont.) 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).
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.

Example Implementation

This example shows two commands invoked from the Zoom menu (Attach Supplemental and Process Invoices). Each command is listed twice because the commands enable the same functionality, but on two different pages.

In addition, the solution has been configured to invoke the SaveInvoice command during the POST-INSERT event, which specifies that whenever an action inserts a new Oracle E-Business Suite transaction record, the integration automatically invokes the SaveInvoice command on the back-end, performing the actions associated with the command. Note that POST-INSERT is not called by a subsequent save of the same transaction record in Oracle E-Business Suite.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing, SPECIAL=(null), RESPONSIBILITY=(null)

Table A-59   Example AXF_COMMANDS Table

Table A-59   (Cont.) Example AXF_COMMANDS Table

EVENTID	FORMID	EVENTNAME	DISPLAYMENU	COMMANDNA MESPACE	REQUIRESCON VERSATION	SORT BY	MENU TYPE
16	1	ZOOM	Attach Supplemental	AttachSupplem ental	YES	2	ZOO M
14	6	ZOOM	Attach Supplemental	AttachSupplem ental	YES	2	ZOO M
13	6	ZOOM	Process Batch Invoices	StartInvoicePro cessing	NO	1	ZOO M
10	1	ZOOM	Process Invoices	StartInvoicePro cessing	NO	1	ZOO M
11	1	POST-INSERT	(null)	SaveInvoice	YES	0	(null)
15	6	POST-INSERT	(null)	SaveInvoice	YES	0	(null)

A.4.4 AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite)

Use the AXF_COMMAND_PARAMETERS table to define the information sent for each defined command. Each command may require or omit a different set of parameters.

Column Description

Table A-60   Column Description for AXF_COMMAND_PARAMETERS Table

Column	Description
PARAMETERID	Defines a unique ID for the parameter.
EVENTID	Defines a unique ID for the event. Comes from the 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.

Example Implementation

The example that follows contains two parameters sent for EventID 2: a constant value (InvoicesByVendor) and a data value (VENDOR_NAME) in the *INVOICES_QF* Data Block.

The COMPLETE command requires that a conversation be established between Oracle E-Business Suite and AXF. A Conversation is a session unique ID that allows communication between Oracle E-Business Suite and AXF Framework.

If a command requires a separate window to open, then Oracle E-Business Suite opens another instance of the browser. Users may then take additional steps in the newly created window.

Table A-61   Example AXF_COMMAND_PARAMETERS Table

PARAMETER ID	EVENTID	PARAMETERN AME	DATASOURCEN AME	DATABLOCK NAME	FIELDNAME	CONSTANTVA LUE
1	2	SearchName	CONSTANT	(null)	(null)	InvoicesByVen dor
2	2	VendorName	DATA	INVOICES_QF	VENDOR_ NAME	(null)
18	11	InvoiceTransact ionID	DATA	INV_SUM_FO LDER	INVOICE_I D	(null)
21	14	InvoiceTransact ionID	DATA	INV_SUM_FO LDER	INVOICE_I D	(null)
20	15	InvoiceTransact ionID	DATA	INV_SUM_FO LDER	INVOICE_I D	(null)
22	16	InvoiceTransact ionID	DATA	INV_SUM_FO LDER	INVOICE_I D	(null)

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

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

Column Description

Table A-62   Column Description for AXF_PROPERTIES Table

Table A-62   (Cont.) 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` (required), which enables SOAP security, as described in Securing Communications Through SOAP Security. • AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in Securing Communications Through SOAP Security. • AXF_PAPERCLIP: Set to `TRUE` to enable the paperclip option, or `FALSE` (default) to disable it. Also see Reenabling Paperclip Attachments (Oracle E-Business Suite and Imaging Only). • AXF_MULTINSTANCE: Allows you to target the same instance/conversation when multiple instances of a particular Oracle E-Business Suite page are displayed. See Targeting a Single Conversation With Multiple Window Instances Displayed. Specify TRUE to treat each Oracle E-Business Suite window as a separate conversation and target a separate Imaging or AXF window. Specify FALSE (default) to treat each Oracle E-Business Suite instance window as the same conversation and use the same Imaging or AXF target window.
PROPVALUE	Specifies the property's value.

Example Implementation

This example table shows the default properties values.

Table A-63   Example AXF_PROPERTIES Table

PROPNAME	PROPVALUE
SecureMode	OFF
AXFWalletPath	file:*walletpath*
AXFWalletKey	*AXFWalletKey*
AXF_VERSION	2
AXF_SOAP_POLICY	USER_NAME_TOKEN
AXF_SOAP_SECURITY	TRUE

Table A-63   (Cont.) Example AXF_PROPERTIES Table

PROPNAME	PROPVALUE
AXF_SOAP_USER	weblogic
AXF_PAPERCLIP	TRUE

A.5 Oracle PeopleSoft Tables For the BPEL Imaging Solution

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

This section covers the following topics:

- About the Oracle PeopleSoft AXF Tables For the BPEL Imaging Solution

- PS_AXF_CONFIG Table

- PS_AXF_COMMANDS Table

- PS_AXF_COMMAND_PARAMS Table

- PS_AXF_PROPERTIES Table

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

The following diagram shows how the tables used by the Oracle PeopleSoft system in AXF solutions are related.
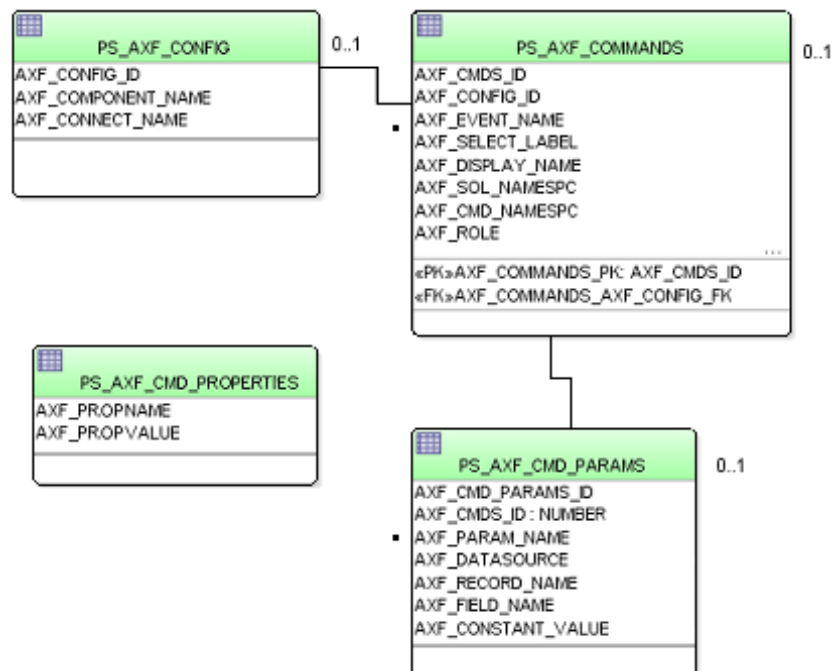
> **Note:**
>
> All AXF table fields require non-null values. You can include a space for fields that do not apply.

A.5.2 PS_AXF_CONFIG Table

Use the PS_AXF_CONFIG table to enable the AXF solution on various Oracle PeopleSoft components. This table provides a fine level of granularity when selecting which pages and components to AXF-enable.

Events are automatically invoked when an action is performed on an Oracle PeopleSoft page. The AXF_PS_Integration project component catches PRE- and POST-save events and makes them available for customization. You can decide which events to use and how and when to use them.

Column Description

Table A-64   Column Description for PS_AXF_CONFIG Table

Column Name	Description
AXF_CONFIG_ID	Specifies the primary key of the table.
AXF_COMPONENT_NAME	Specifies the name of the Oracle PeopleSoft component being enabled.
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

Example Implementation

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

Table A-65   Example PS_AXF_CONFIG Table

AXF_CONFIG_ID	AXF_COMPONENT_NAME	AXF_CONNECT_NAME	AXF_VERSION
1	VCHR_QUICK_PNL	AXF_EXECUTE	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.

Column Description

Table A-66   Column Description for PS_AXF_COMMANDS Table

Table A-66   (Cont.) 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. For more information, see Placing AXF Components on Oracle PeopleSoft Pages. Available options include: • AXF_BUTTON_1, …, AXF_BUTTON_5 • AXF_LINK_1, ..., AXF_LINK5 • AXF_COMBO_1, ..., AXF_COMBO_5 • SAVE_PRE_CHANGE • SAVE_POST_CHANGE
AXF_SELECT_LABEL	Defines the name displayed on the page for the selection field. This is used only with the COMBO event.
AXF_DISPLAY_NAME	Defines the name of the button or link to display on the Oracle PeopleSoft page.
AXF_SOL_NAMESPC	Identifies the solution namespace for the command to execute.
AXF_CMD_NAMESPC	Identifies the command namespace for the command to execute.
AXF_PSFT_ROLE	Identifies the Oracle PeopleSoft roles with access to the command. It is a comma-delimited list with each role enclosed in single quotes (for example, 'Role1','Role2','Role3').
AXF_SORT_ORDER	Specifies the order of items displayed in a selection field. Sort order applies to selection fields only.
AXF_REQ_CONV	Specifies if a conversation is required to this command before execution. For example, execution of the UpdateTask command requires a conversation be running in order for the user to select a current task.

Example Implementation

This example shows two commands added to an invoice processing page. One inserts a button that when clicked initiates invoice processing. The other inserts a link that when clicked initiates a search of Imaging for duplicate invoices.

In addition, the solution has been configured to invoke the SaveInvoice command during the SAVE_POST_CHANGE event, which specifies that whenever an action inserts a new Oracle PeopleSoft transaction record, the integration automatically invokes the SaveInvoice command on the back-end, performing the actions associated with the command. Note that SAVE_POST_CHANGE is not called by a subsequent save of the same transaction record in Oracle PeopleSoft.

You must specify an Oracle PeopleSoft Role in the AXF_PSFT_ROLE field to give permissions to use the commands. If a person does not have proper permissions to use the commands, the commands do not display. If the commands display but do not function, this indicates that the commands are not properly configured.

Fields not shown: AXF_SELECT_LABEL=(null), AXF_SORT_ORDER=1, AXF_REQ_CONV=N

Table A-67   Example PS_AXF_COMMANDS Table

AXF_CMDS_ID	AXF_CONFIG_ ID	AXF_EVENT_ NAME	AXF_DISPLAY_ NAME	AXF_SOL_ NAMESPC	AXF_CMD_ NAMESPC	AXF_PSFT_ ROLE
1	1	AXF_BUTTON _1	Start Invoice Processing	InvoicePro cessing	StartInvoice Processing	'Employee'
2	1	AXF_LINK_1	Search For Duplicates	InvoiceInq uiry	SearchIPM	'Employee'
3	1	SAVE_POST_ CHANGE	(null)	InvoicePro cessing	SaveInvoice	'Employee'

A.5.4 PS_AXF_COMMAND_PARAMS Table

Use the PS_AXF_COMMAND_PARAMS table to specify the information sent for each defined command. Each command may require or omit a different set of parameters.

Column Description

Table A-68   Column Description for AXF_COMMAND_PARAMETERS Table

Column	Description
AXF_CMDS_PARAMS_ID	Specifies the primary key of the table.
AXF_CMDS_ID	Specifies the foreign key to the PS_AXF_COMMANDS Table, which associates the unique parameter with a specific command.
AXF_PARAM_NAME	Defines the parameter name.
AXF_DATASOURCE	Specifies where the parameter value is retrieved. • 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.

Example Implementation

The example that follows contains three parameters sent for AXF_CMDS_ID 2: a constant value (SearchName) and two data values (INVOICENUMBER and InvoiceTransactionID).

Table A-69   Example PS_AXF_COMMAND_PARAMS Table

Table A-69 (Cont.) Example PS_AXF_COMMAND_PARAMS Table

AXF_CMDS_ PARAMS_ID	AXF_CMDS_ ID	AXF_PARAM_ NAME	AXF_DATA SOURCE	AXF_RECORD _NAME	AXF_FIELD_ NAME	AXF_CONSTANT _VALUE
1	2	SearchName	CONSTANT	(null)	(null)	SearchByInvoiceID
2	2	INVOICENUMBER	DATA	VCHR_HDR_QV	INVOICE_ID	(null)
3	3	InvoiceTransactionID	DATA	VCHR_HDR_QV	VOUCHER_ID	(null)

A.5.5 PS_AXF_PROPERTIES Table

Use the PS_AXF_PROPERTIES table to define properties for an AXF integration with Oracle PeopleSoft. See Resizing Oracle PeopleSoft Popup Solution Windows.

Column Description

Table A-70 Column Description for PS_AXF_PROPERTIES Table

Column	Description
AXF_PROPNAME	Specifies properties to use. Properties include: • WINDOW_HEIGHT: Specify the popup window's height in pixels. (This refers to any popup window that displays as part of the solution.) • WINDOW_WIDTH: Specify the popup window's width in pixels.
AXF_PROPVALUE	Specifies the property's value.

Example Implementation

This example table shows the default properties values.

Table A-71 Example PS_AXF_PROPERTIES Table

AXF_PROPNAME	AXF_PROPVALUE
WINDOW_HEIGHT	600
WINDOW_WIDTH	800

B

Managed Attachments Solution Reference

This appendix describes the AXF, Oracle E-Business Suite, Oracle PeopleSoft, and Content Server configuration tables used for the Managed Attachments solution. It describes the GrantAccess command and the Managed Attachments URL, and provides example implementations.

This appendix covers the following topics:

- AXF Tables For the Managed Attachments Solution

- Oracle E-Business Suite Forms Tables For the Managed Attachments Solution

- Oracle E-Business Suite OAF Tables For the Managed Attachments Solution

- Oracle PeopleSoft Tables For the Managed Attachments Solution

- Content Server Tables For the Managed Attachments Solution

Many of the Managed Attachments tables are automatically populated during the business application plug-in configuration (see Configuring the Oracle E-Business Suite Plug-In or Configuring the Oracle PeopleSoft Plug-In) and Managed Attachments configuration (see Configuring the Managed Attachments Solution). This appendix describes how to configure additional pages for Managed Attachments or to make changes to the tables if needed.

B.1 AXF Tables For the Managed Attachments Solution (*11g Release*)

Application Extension Framework (AXF) tables define the solution, its system parameters, and the GrantAccess command used.

> **Note:**
>
> If modifying AXF table values in a running system, either execute Clear DB Cache from the Driver page or restart the AXF application within the Application Server for the changes to take effect.

The diagram that follows displays the AXF configuration tables used for the Managed Attachments solution and their relationships.
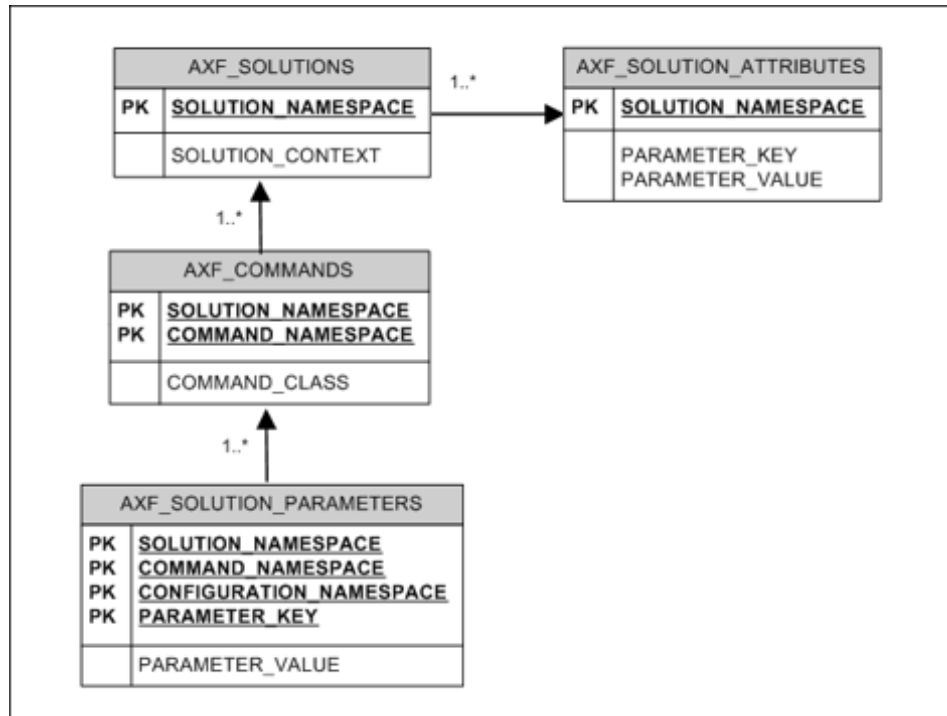
AXF Table	Description
AXF_SOLUTIONS Table AXF_SOLUTION_ATTRIBUTES Table	Defines AXF solutions and general parameters for infrastructure, services, and solutions.
AXF_COMMANDS Table	Defines AXF commands within solutions.
AXF_SOLUTION_PARAMETERS Table	Defines parameters for AXF commands.

B.1.1 AXF_SOLUTIONS Table

The AXF_SOLUTIONS table defines the solutions used by AXF. It links to the AXF_COMMANDS Table through the SOLUTION_NAMESPACE column.

Column Description

Table B-1   Column Description for AXF_SOLUTIONS Table

Column	Description
SOLUTION_CONTEXT	Defines the JNDI name of the AXF solution implementation. (Currently, AxfCommandMediator is the only solution implementation.)
SOLUTION_NAMESPACE	Defines the AXF solution name.

Example Implementation

This example shows the Managed Attachments solution defined, using AxfCommandMediator as its solution implementation.

Table B-2   Example AXF_SOLUTIONS Table

SOLUTION_NAMESPACE	SOLUTION_CONTEXT
UCM_Managed_Attachments	ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote

B.1.2 AXF_SOLUTION_ATTRIBUTES Table

This table defines general attributes for use by infrastructure, services, or solutions.
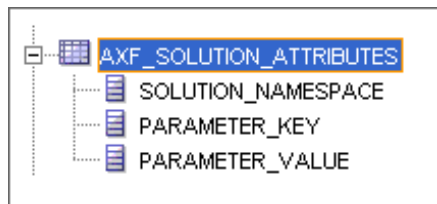
Column Description

Table B-3   Column Description for AXF_SOLUTION_ATTRIBUTES Table

Column	Description
SOLUTION_NAMESPACE	Specifies the solution namespace that uses this parameter.
PARAMETER_KEY	Name of the parameter. Used when retrieving the parameter value from the database. Applicable parameters include: • USERNAME_PASS_THROUGH: When set to FALSE for an imaging solution, this parameter allows an authenticated Oracle WebLogic Server user to perform tasks, such as BPEL tasks, rather than the user passed from Oracle E-Business Suite or Oracle PeopleSoft. Note that this parameter must be set to TRUE for Managed Attachments configurations. See Restoring Business Application User Pass Through for Managed Attachments.
PARAMETER_VALUE	Value of the parameter.

Example Implementation

This example table sets solution attributes for the Managed Attachments solution.

Table B-4   Example AXF_SOLUTION_ATTRIBUTES Table

SOLUTION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_Attachments	USERNAME_PASS_THROUGH	TRUE

B.1.3 AXF_COMMANDS Table

This table defines AXF commands and their java classes for the solution. Each command's parameters are configured in the AXF_SOLUTION_PARAMETERS Table.

Column Description

Table B-5   Column Description for AXF_COMMANDS Table

Table B-5 (Cont.) 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.

Example Implementation

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

Table B-6 Example AXF_COMMANDS Table

SOLUTION_NAMESPACE	COMMAND_CLASS	COMMAND_NAMESPACE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrant AccessCommand	UCM_Managed_Attachments

B.1.4 AXF_SOLUTION_PARAMETERS Table

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

Column Description

Table B-7 Column Description for AXF_SOLUTION_PARAMETERS Table

Column	Description
SOLUTION_NAMESPACE	Identifies the solution namespace, as defined in the AXF_SOLUTIONS Table.
COMMAND_NAMESPACE	Specifies the command name, as defined in the AXF_COMMANDS Table.
CONFIGURATION_NAMESP ACE	Used to implement the command. Specify the complete package name of the implementation class. This namespace path provides the physical Java class to instantiate. The namespace also differentiates commands within the same solution namespace.

Table B-7 (Cont.) Column Description for AXF_SOLUTION_PARAMETERS Table

Column	Description
PARAMETER_KEY	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 Content Server service. Includes the host name or IP address of the system on which Content Server is running, and the Content Server port that receives RIDC calls. (To find the value for the Content Server port, locate the IntradocServerPort config value in config.cfg.) • UCM_CONNECTION_STR: Specifies the base URL that executes the Content Server attachments framework search, which lists associated documents. This parameter also sets the following values: Host name or IP address of the system on which Content Server is running Port on which the web server is listening. Content Server profile (default profile is **EBSProfile** or **PSFTProfile**. If using the universal adapter described in Configuring the Enterprise Application Adapter Framework, specify **UniversalProfile**.) GET_SEARCH_RESULTS_FORCELOGIN service ResultTemplate (default template is **EBS_LIST** or **PSFT_LIST**. If using the universal adapter described in Configuring the Enterprise Application Adapter Framework, use **UNIVERSAL_LIST**). • UCM_ADMIN_USER: Specifies the administrative Content Server user that executes the AF_GRANT_ACCESS service for the user logged into the business application. • MA_CSF_KEY: Stores the admin user credentials in the credential store framework (CSF) using a configurable key name. You can change the key name if needed. The same key name is used to create the credential in CSF, as described in Configuring a CSF Credential for Managed Attachments.
PARAMETER_VALUE	Specifies the value of the parameter key.

Example Implementation

These examples define the UCM_Managed_Attachments command for the UCM_Managed_Attachments solution. Table B-8 provides an Oracle E-Business Suite example and Table B-9 provides an Oracle PeopleSoft example. These values were set in Configuring AXF Elements for Managed Attachments.

• The first row specifies the RIDC connection string that executes the AF_GRANT_ACCESS Content Server service.

• The second row specifies the Managed Attachments URL that invokes the Content Server attachments framework search.

- The third row specifies the Content Server administrative user who runs the AF_GRANT_ACCESS service; this user name is dynamically retrieved.

- The fourth row specifies the CSF key. The username stored in the CSF is compared with the username value in the incoming request from the business application.

Fields not shown: SOLUTION_NAMESPACE=UCM_Managed_Attachments

Table B-8   Example AXF_SOLUTION_PARAMETERS Table for Oracle E-Business Suite Managed Attachments Solution (AXF for BPEL)

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	RIDC_CONNECTION_STR	`idc://`*Content Server host name or IP address:Content Server RIDC port*
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_CONNECTION_STR	`http://`*Content Server Host name or IP address: Content Server Port*`/cs/ idcplg/_p/min/af/ trigger- EBSProfile? IdcService=GET_SE ARCH_RESULTS_FORC ELOGIN&ResultTemp late=EBS_LIST`
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_ADMIN_USER	*Content Server admin user*
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	MA_CSF_KEY	`MA_CSF_KEY`

Table B-9   Example AXF_SOLUTION_PARAMETERS Table for Oracle PeopleSoft Managed Attachments Solution (AXF for BPEL)

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	RIDC_CONNECTION_STR	`idc://`*Content Server host name or IP address:Content Server RIDC port*

Table B-9   (Cont.) Example AXF_SOLUTION_PARAMETERS Table for Oracle PeopleSoft Managed Attachments Solution (AXF for BPEL)

COMMAND_NAMESPACE	CONFIGURATION_NAMESPACE	PARAMETER_KEY	PARAMETER_VALUE
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_CONNECTION_STR	`http://`*Content Server Host name or IP address*`:`*Content Server Port*`/cs/idcplg/_p/min/af/trigger-PSFTProfile?IdcService=GET_SEARCH_RESULTS_FORCELOGIN&ResultTemplate=PSFT_LIST`
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	UCM_ADMIN_USER	*Content Server admin user*
UCM_Managed_Attachments	oracle.imaging.axf.commands.ucm.AfGrantAccessCommand	MA_CSF_KEY	`MA_CSF_KEY`

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

Oracle E-Business Suite Forms tables define how the Managed Attachments page is activated through the Zoom menu on selected Oracle E-Business Suite forms. Each Oracle E-Business Suite form enabled for the AF integration requires an AXF Oracle E-Business Suite configuration that defines a Zoom Menu item with the label Managed Attachments and a set of parameters that include the Oracle E-Business Suite instance name, business object type, business object key(s), and user friendly description of the business object instance.

The diagram that follows displays the Oracle E-Business Suite Forms configuration tables used for the Managed Attachments solution and their relationships.
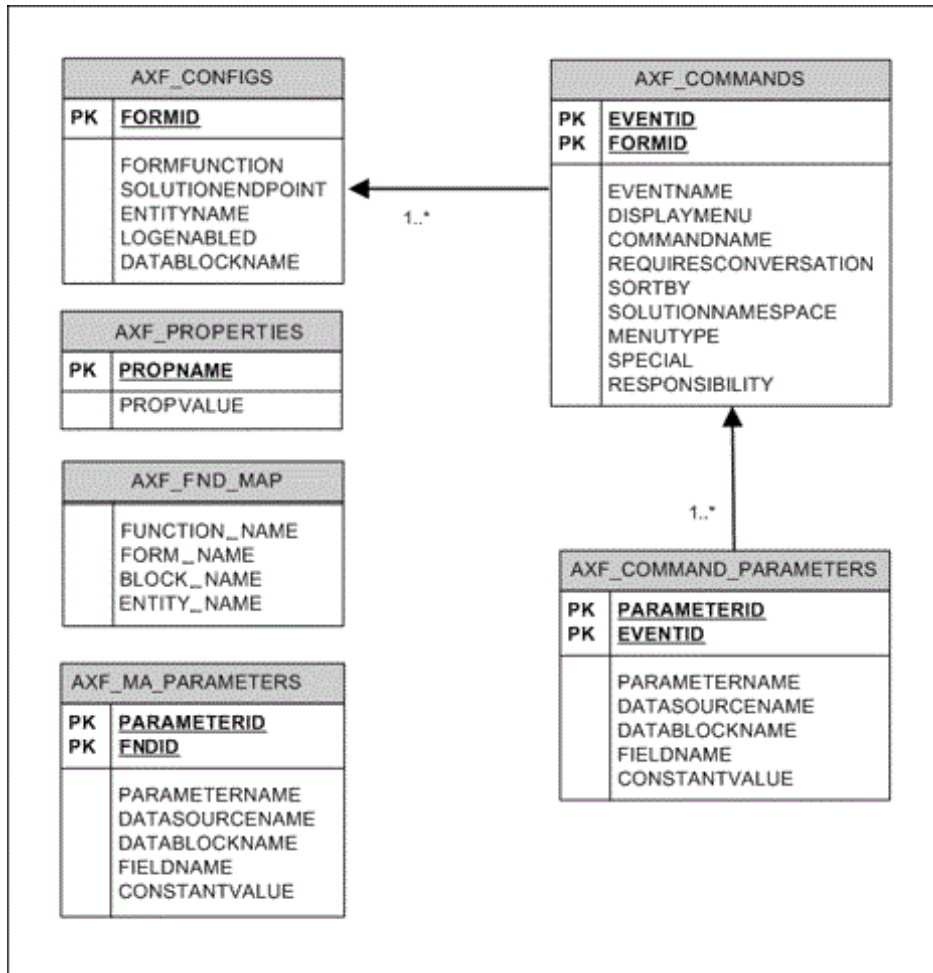
Oracle E-Business Suite Forms Tables	Description
AXF_CONFIGS Table (Oracle E-Business Suite Forms)	Enables the AXF solution on various Oracle E-Business Suite Forms.
AXF_PROPERTIES Table (Oracle E-Business Suite Forms)	Defines properties for AXF integration for Oracle E-Business Suite.
AXF_FND_MAP Table (Oracle E-Business Suite Forms)	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.
AXF_COMMANDS Table (Oracle E-Business Suite Forms)	Describes the actions to take based on user activity.
AXF_COMMAND_PARA METERS Table (Oracle E-Business Suite Forms)	Defines the information sent for the AfGrantAccess command.

Oracle E-Business Suite Forms Tables	Description
AXF_MA_PARAMETERS Table (Oracle E-Business Suite Forms)	Defines the information sent for additional parameters for Managed Attachments.

B.2.1 AXF_CONFIGS Table (Oracle E-Business Suite Forms)

Use the AXF_CONFIGS table to enable the AXF solution on various Oracle E-Business Suite Forms. This table provides a fine level of granularity when selecting which forms to AXF-enable.

When an action occurs, the customized code launches the specified solution and command configured for the event. When configured for the Oracle E-Business Suite adapter for Content Server, this table invokes the AfGrantAccess command.

Column Description

Table B-10   Column Description for AXF_CONFIGS Table

Column Name	Description
FORMID	Specifies the primary key of the table.
FORMFUNCTION	Distinguishes each Oracle E-Business Suite Form based on the form's functionality.
SOLUTIONENDPOINT	Specifies a URL to AXF, and defines if using the AXF for BPEL infrastructure. This value should start as `https://` if SecureMode is on. See Securing Communications Through SSL (Oracle E-Business Suite).
ENTITYNAME	Used by the attachment functionality as a unique name, which links attachments to the correct Forms.
LOGENABLED	Enables or disables the log for the specified form. See Configuring Oracle E-Business Suite Logging. 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.

Example Implementation

These examples define the AfGrantAccess command in the AXF_CONFIGS table for a form.

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

Table B-11   Example AXF_CONFIGS Table (AXF for BPEL)

FORMID	FORMFUNCTION	SOLUTIONENDPOINT

1	AXF_MANAGED_ATTACHMENTS	`https://`
		`ApplicationServerName:Po`
		`rt/axf-ws/`
		`AxfSolutionMediatorServi`
		`ce`

B.2.2 AXF_PROPERTIES Table (Oracle E-Business Suite Forms)

Use the AXF_PROPERTIES table to define properties for AXF integration for Oracle E-Business Suite. You can also use its AXF_PAPERCLIP property to enable or disable the paperclip (display attached document) feature, as described in Enabling the Paperclip with Attachments (Oracle E-Business Suite Forms Only).

Column Description

Table B-12   Column Description for AXF_PROPERTIES Table (Oracle E-Business Suite)

Column	Description
PROPNAME	Specifies properties to use. Properties include: • 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 Securing Communications Through SOAP Security. This setting is required. • AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in Securing Communications Through SOAP Security. • AXF_PAPERCLIP: Set to `TRUE` to enable the Oracle E-Business Suite native attachments paperclip option, or `FALSE` (default) to disable it. See Enabling the Paperclip with Attachments (Oracle E-Business Suite Forms Only).
PROPVALUE	Specifies the property's value.

Example Implementation

This example table shows the default properties values.

Table B-13   Example AXF_PROPERTIES Table

PROPNAME	PROPVALUE
SecureMode	OFF

Table B-13   (Cont.) Example AXF_PROPERTIES Table

PROPNAME	PROPVALUE
AXFWalletPath	file:*walletpath*
AXFWalletKey	*AXFWalletKey*
AXF_VERSION	2
AXF_SOAP_POLICY	USER_NAME_TOKEN
AXF_SOAP_SECURITY	TRUE
AXF_SOAP_USER	weblogic
AXF_PAPERCLIP	FALSE

B.2.3 AXF_FND_MAP Table (Oracle E-Business Suite Forms)

This table relates to an Oracle E-Business Suite form's values passed to the AfGrantAccessCommand when a user activates the Managed Attachments functionality from an Oracle E-Business Suite form. The adapter looks up values for the Oracle E-Business Suite form in this table and passes them to the AfGrantAccessCommand for executing the Content Server AF_GRANT_ACCESS service and attachments framework search.

Column Description

Table B-14   Column Description for AXF_FND_MAP Table

Column	Description
FUNCTION_NAME	Defines the Oracle E-Business Suite Form based on its functionality.
FORM_NAME	Defines the name of the Oracle E-Business Suite form to enable.
BLOCK_NAME	Defines the data block on the form to enable.
ENTITY_NAME	Used by the attachment functionality as a unique name, which links attachments to the correct forms.

Example Implementation

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

Table B-15   Example Implementation for AXF_FND_MAP Table

FUNCTION_NAME	FORM_NAME	BLOCK_NAME	ENTITY_NAME
AP_APXINWKB	APXINWKB	INV_SUM_FOLDER	AP_INVOICES

B.2.4 AXF_COMMANDS Table (Oracle E-Business Suite Forms)

Use the AXF_COMMANDS table to describe the actions to take based on user activity. This table works with the AXF_CONFIGS Table (Oracle E-Business Suite Forms).

Column Description

Table B-16   Column Description for AXF_COMMANDS Table

Column Name	Description	Nullable
FORMID	Links to the AXF_CONFIGS Table (Oracle E-Business Suite Forms).	No
EVENTID	Primary key of the table.	Yes
EVENTNAME	Name of the Event command to invoke (ZOOM for this adapter).	Yes
DISPLAYMENU	Displays text of the menu for the command.	Yes
COMMANDNAMESPACE	Request command to pass to the back-end when a user selects the menu.	Yes
REQUIRESCONVERSATION	Indicates if the command requires a valid conversation or not. For this adapter, this value must be NO.	Yes
SORTBY	Order in which the menu is displayed.	Yes
SOLUTIONNAMESPACE	Name of the solution.	Yes
MENUTYPE	Specify the menu type to display to users in Oracle E-Business Suite. ZOOM displays a Zoom menu in the toolbar.	Yes
SPECIAL	Create new menu entries by entering a unique number for the Special type menu. (Not applicable for this adapter.)	Yes
RESPONSIBILITY	Use this column to filter the menu options based on user responsibility. Enter a value to display the menu only to end users with responsibilities associated with that value. (Not applicable for this adapter.)	Yes

Example Implementation

The example AXF_COMMANDS table that follows displays fields for an AfGrantAccess command configuration for the Invoice Entry form.

Fields not shown: SPECIAL=(null), RESPONSIBILITY=(null)

Table B-17   Example AXF_COMMANDS Table for Invoice Entry Form

Table B-17   (Cont.) Example AXF_COMMANDS Table for Invoice Entry Form

EVENT ID	FORM ID	EVENT NAME	DISPLAY MENU	COMMAND NAMESPACE	REQUIRES CONVERSATION	SORTBY	SOLUTION NAMESPACE	MENU TYPE
8	1	ZOOM	Managed Attachments	UCM_Managed_Attachment	NO	3	UCM_Managed_Attachments	ZOOM

B.2.5 AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite Forms)

Use the AXF_COMMAND_PARAMETERS table to define the information sent for each defined command. Each command may require or omit a different set of parameters.

Column Description

Table B-18   Column Description for AXF_COMMAND_PARAMETERS Table

Column	Description
PARAMETERID	Defines a unique ID for the parameter.
EVENTID	Defines a unique ID for the event. Comes from the AXF_COMMANDS Table (Oracle E-Business Suite Forms).
PARAMETERNAME	The name of the parameter to pass, where: • application: Specifies the business application, as defined in the AFObjects Table. This name/value pair is passed as a configuration parameter to the Content Server AF_GRANT_ACCESS service and attachments framework search. • extra*ParamName*: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See Passing Extra Metadata Values From a Business Application to Content Server.
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.

Example Implementation

The AXF_COMMAND_PARAMETERS example that follows displays fields configured for the AfGrantAccess command for the Invoice Entry form. The second example row passes a context value, as described in Customizing Settings Based on Users' Business Context. Note that you can specify a value using a constant value or a data block/fieldname.

Table B-19   Example AXF_COMMAND_PARAMETERS Table for 12c

Table B-19   (Cont.) Example AXF_COMMAND_PARAMETERS Table for 12c

PARAMETER ID	EVENTID	PARAMETERNAME	DATASOURCE NAME	DATABLOCK NAME	FIELDNAME	CONSTANT VALUE
1	8	application	CONSTANT	(null)	(null)	EBS_instance A
2		businessObjectContext	CONSTANT			ScanContext
3	8	CS_WEBKEY	CONSTANT	(null)	(null)	cs

> **Note:** *CS_WEBKEY* parameter refers to the context root of the Content Server that E-Business Suite is connected to. If the value of the context root is anything other than *cs*, you can modify the value in the table.

Table B-20   Example AXF_COMMAND_PARAMETERS Table for 11g

PARAMETER ID	EVENTID	PARAMETERNAME	DATASOURCE NAME	DATABLOCK NAME	FIELDNAME	CONSTANT VALUE
1	8	application	CONSTANT	(null)	(null)	EBS_instance A
2		businessObjectContext	CONSTANT			ScanContext

B.2.6 AXF_MA_PARAMETERS Table (Oracle E-Business Suite Forms)

Use the AXF_MA_PARAMETERS table to define the information sent for additional parameters for Managed Attachments.

Column Description

Table B-21   Column Description for AXF_MA_PARAMETERS Table

Column	Description
PARAMETERID	Defines a unique ID for the parameter.
FNDID	Defines a unique ID for the fnd map table. Comes from the AXF_FND_MAP Table (Oracle E-Business Suite Forms).
PARAMETERNAME	The name of the parameter to pass, where: • application: Specifies the business application, as defined in the AFObjects Table. This name/value pair is passed as a configuration parameter to the Content Server AF_GRANT_ACCESS service and attachments framework search. • extra*ParamName*: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See Passing Extra Metadata Values From a Business Application to Content Server.

Table B-21   (Cont.) Column Description for AXF_MA_PARAMETERS Table

Column	Description
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.

Example Implementation

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

Table B-22   Example AXF_MA_PARAMETERS Table

PARAMETERID	FNDID	PARAMETERNAME	DATASOURCE NAME	DATABLOCK NAME	FIELDNAME	CONSTANT VALUE
1	5	Company	CONSTANT	(null)	(null)	MyCompany

B.3 Oracle E-Business Suite OAF Tables For the Managed Attachments Solution

Oracle E-Business Suite OAF tables define how the Managed Attachments page is activated through a button added via personalization to selected OAF pages, which redirects to the Managed Attachments URL in Content Server.

The diagram that follows displays the Oracle E-Business Suite OAF configuration tables used for the Managed Attachments solution and their relationships.
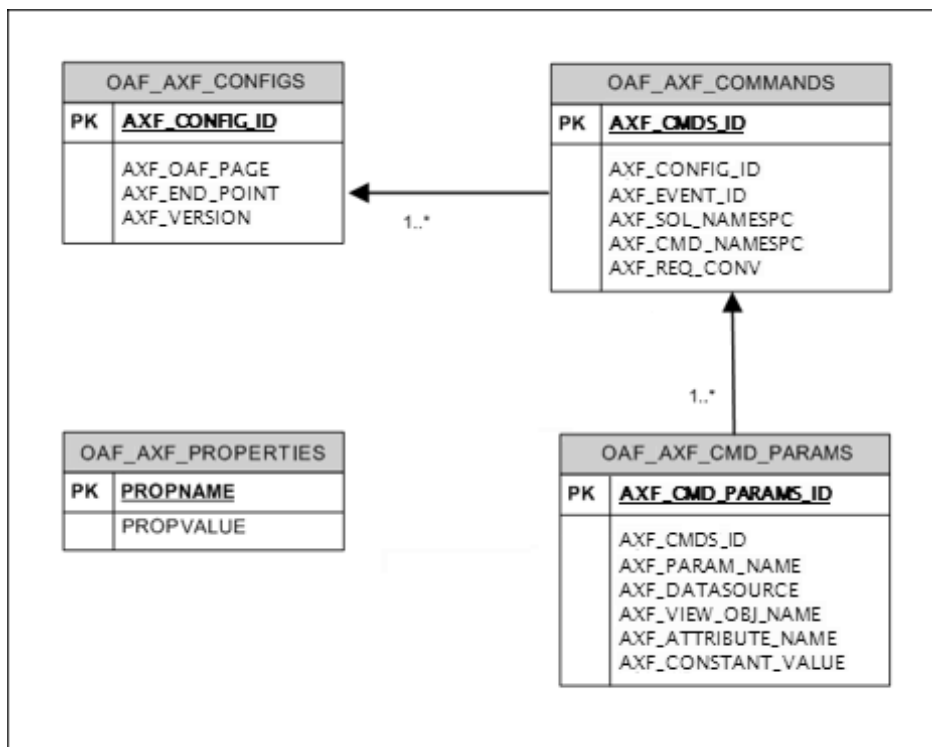
Oracle E-Business Suite OAF Table	Description
OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF)	Enables the AXF solution on various Oracle E-Business Suite OAF pages.
OAF_AXF_PROPERTIES Table (Oracle E-Business Suite OAF)	Defines properties for AXF integration for Oracle E-Business Suite.
OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF)	Describes the actions to take based on user activity.
OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF)	Defines the information sent for the AfGrantAccess command.

B.3.1 OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF)

Use the OAF_AXF_CONFIGS table to store the AXF endpoints for a particular OAF page. You can define multiple endpoints for the same page.

When an action occurs, the customized code launches the specified solution and command configured for the event. When configured for the Oracle E-Business Suite adapter for Content Server, this table invokes the AfGrantAccess command.

Column Description

Table B-23   Column Description for OAF_AXF_CONFIGS Table

Table B-23   (Cont.) Column Description for OAF_AXF_CONFIGS Table

Column Name	Description
AXF_CONFIG_ID	Specifies the primary key of the table.
AXF_OAF_PAGE	Specifies the full path name of the Oracle E-Business Suite OAF page. See Identifying Key Values for Your OAF Pages.
AXF_END_POINT	Specifies a URL to the AXF endpoint to which to connect. This value should start as `https://` if SecureMode is on. See Securing Communications Through SSL (Oracle E-Business Suite).
AXF_VERSION	Specifies the AXF version of the connection, where `1` indicates AXF 10g, and `2` indicates AXF 11g.

Table B-24   Column Description for OAF_AXF_CONFIGS Table

Column Name	Description
AXF_CONFIG_ID	Specifies the primary key of the table.
AXF_OAF_PAGE	Specifies the full path name of the Oracle E-Business Suite OAF page. See Identifying Key Values for Your OAF Pages.
AXF_END_POINT	Specifies a URL to the AXF endpoint to which to connect. This value should start as `https://` if SecureMode is on. See Securing Communications Through SSL (Oracle E-Business Suite).
AXF_VERSION	Specifies the AXF version of the connection, where `1` indicates AXF 10g, and `2` indicates AXF 11g.

Example Implementation

This example enables the AXF solution on the specified Oracle E-Business Suite OAF pages. Notice that the first two rows show two commands for the same page, each pointing to a different endpoint. These commands should be configured to perform different operations, such as a Managed Attachments button and an Invoice Processing button. (Note that it is recommended to place only one Managed Attachments button on an OAF page.)

Field not shown: AXF_VERSION=2

Table B-25   Example OAF_AXF_CONFIGS Table

AXF_CONFIG_ID	AXF_OAF_PAGE	AXF_END_POINT
1	/oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG	http://*ImagingServerHostname1:Port1*/axf-ws/AxfSolutionMediatorService
2	/oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG	http://*ImagingServerHostname2:Port2*/axf-ws/AxfSolutionMediatorService
3	/oracle/apps/po/document/order/webui/OrderPG	http://*ImagingServerHostname1:Port1*/axf-ws/AxfSolutionMediatorService

Table B-25   (Cont.) Example OAF_AXF_CONFIGS Table

AXF_CONFIG_ID	AXF_OAF_PAGE	AXF_END_POINT
4	/oracle/apps/pos/changeorder/webui/ PosViewPOPG	http://*ImagingServerHostname1:Port1*/axf-ws/AxfSolutionMediatorService
5	/oracle/apps/pos/supplier/webui/ QuickUpdatePG	http://*ImagingServerHostname1:Port1*/axf-ws/AxfSolutionMediatorService
6	/oracle/apps/pon/negotiation/creation/ webui/ponDefineHdrPG	http://*ImagingServerHostname1:Port1*/axf-ws/AxfSolutionMediatorService
7	/oracle/apps/pon/negotiation/creation/ webui/ponItemHeaderPG	http://*ImagingServerHostname1:Port1*/axf-ws/AxfSolutionMediatorService
8	/oracle/apps/pa/project/webui/ ProjAttachmentPG	http://*ImagingServerHostname1:Port1*/axf-ws/AxfSolutionMediatorService

B.3.2 OAF_AXF_PROPERTIES Table (Oracle E-Business Suite OAF)

Use the OAF_AXF_PROPERTIES table to define properties for AXF integration for Oracle E-Business Suite OAF applications.

Column Description

Table B-26   Column Description for OAF_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_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 Securing Communications Through SOAP Security. This setting is required. • AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in Securing Communications Through SOAP Security. • AXF_OAF_REDIRECT_PAGE_URL: Specifies the URL to the custom intermediate OAF page. This URL is configured in Compiling Java Files_ Copying Class Files_ and Importing XML Files. It begins with `https://` if SSL is configured on the Oracle E-Business Suite instance.
PROPVALUE	Specifies the property's value.

Example Implementation

This example table shows the default properties values.

Table B-27   Example OAF_AXF_PROPERTIES Table

PROPNAME	PROPVALUE
SecureMode	OFF
AXFWalletPath	file:*walletpath*
AXFWalletKey	*AXFWalletKey*
AXF_SOAP_POLICY	USER_NAME_TOKEN
AXF_SOAP_SECURITY	TRUE
AXF_SOAP_USER	weblogic
AXF_OAF_REDIRECT_PAGE_URL	http://*EBS Host : EBS Port*/OA_HTML/OA.jsp?page=/oracle/apps/ak/ucm/axf/webui/RedirectToAxfPG

B.3.3 OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF)

This table stores the different commands configured for a particular OAF page. Each command is associated with an EVENT_ID, which refers to the ID of the button/link embedded on an OAF page via personalization (configured in Configuring Oracle Application Framework (OAF) Pages Via Personalization).

Column Description

Table B-28   Column Description for OAF_AXF_COMMANDS Table

Column Name	Description
AXF_CMDS_ID	Specifies the primary key of the table, used to identify the unique command.
AXF_CONFIG_ID	Specifies the foreign key to the OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF), which associates this unique command with a particular page and component on the page.
AXF_EVENT_ID	Specifies the event being executed in the user interface. The AXF_EVENT_ID corresponds to the ID for the button or link added via personalization to invoke AXF functionality. Available options include: • MAButton (for Managed Attachments) • IPM_BUTTON (for imaging)
AXF_SOL_NAMESPC	Identifies the solution namespace for the command to execute.
AXF_CMD_NAMESPC	Identifies the command namespace for the command to execute.
AXF_REQ_CONV	Specifies if a conversation is required for this command before execution.

Example Implementation

This example shows the UCM_Managed_Attachments command defined for multiple OAF pages. Each command is associated with an EVENT_ID, which refers to the ID of the button/link embedded on an OAF page via personalization. Notice that the second row configures an Imaging (IPM) button that links to the SupplierMaintenance

command of the Imaging solution; this type of configuring is described in Configuring Other Services on OAF Pages (Optional).

Field not shown: AXF_REQ_CONV=N

Table B-29   Example OAF_AXF_COMMANDS Table

AXF_CMDS_ID	AXF_CONFIG_ID	AXF_EVENT_ID	AXF_SOL_NAMESP	AXF_CMD_NAMESPC
1	1	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
2	2	IPM_BUTTON	SupplierMaintenance	StartSupplierMaintenance
3	3	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
4	4	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
5	5	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
6	6	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
7	7	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments
8	8	MAButton	UCM_Managed_Attachments	UCM_Managed_Attachments

B.3.4 OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF)

Each command is associated with different parameters that are required for the SOAP call. The parameters can be constant values or they can refer to the view attribute name. The attributes values can be obtained from the view object from the page context.

Column Description

Table B-30   Column Description for OAF_AXF_CMD_PARAMS Table

Column	Description
AXF_CMD_PARAMS_ID	Specifies the primary key of the table.
AXF_CMDS_ID	Specifies the foreign key to the OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF), which associates the unique parameter with a specific command.

Table B-30   (Cont.) Column Description for OAF_AXF_CMD_PARAMS Table

Column	Description
AXF_PARAM_NAME	Defines the parameter name, where: • application: Specifies the business application, as defined in the AFObjects Table. • businessObjectType: Specifies the business application's object type, as defined in the AFObjects Table. • businessObjectKey: Specifies the business application's object key, as defined in the AFObjects Table. • 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. • extra*ParamName*: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See Passing Extra Metadata Values From a Business Application to Content Server.
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.
AXF_VIEW_OBJ_NAME	Specifies the OAF ViewObject name, which is used to obtain the command parameter values at runtime. See Identifying Key Values for Your OAF Pages.
AXF_ATTRIBUTE_NAME	Used when the AXF_DATASOURCE is set to DATA. This attribute name retrieves the actual runtime value from the view object in the controller class.
AXF_CONSTANT_VALUE	Used as the constant value when AXF_DATASOURCE is set to CONSTANT.

Example Implementation

The OAF_AXF_CMD_PARAMS example that follows displays fields configured for the AfGrantAccess command for multiple OAF pages whose key values you identified in Identifying Key Values for Your OAF Pages.

Table B-31   Example OAF_AXF_CMD_PARAMS Table for 12c

AXF_CMD_ PARAMS_I D	AXF_CMD S_ID	AXF_PARA M_NAME	AXF_DATASO URCE	AXF_VIEW_OBJ_ NAME	AXF_ATTRIBU TE_NAME	AXF_CONSTA NT_VALUE
1	1	application	CONSTANT			EBS_instance A
2	1	businessObj ectType	CONSTANT			REQ_HEADE RS
3	1	businessObj ectKey1	CONSTANT			REQUISITION _HEADER_ID

Table B-31   (Cont.) Example OAF_AXF_CMD_PARAMS Table for 12c

AXF_CMD_PARAMS_ID	AXF_CMDS_ID	AXF_PARAM_NAME	AXF_DATASOURCE	AXF_VIEW_OBJ_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
4	1	businessObjectValue1	DATA	ReqHeaderVO	RequisitionHeaderId	
5	1	labelValue1	DATA	ReqHeaderVO	PreparerName	
6	1	labelValue2	DATA	ReqHeaderVO	ReqNum	
7	1	businessObjectContext	CONSTANT			ScanContext
8	1	CS_WEBKEY	CONSTANT			cs
9	3	application	CONSTANT			EBS_instanceA
10	3	businessObjectType	CONSTANT			PO_HEADERS_MERGE_V
11	3	businessObjectKey1	CONSTANT			PO_HEADER_ID
12	3	businessObjectValue1	DATA	POHeaderMergeVO	POHeaderId	
13	4	application	CONSTANT			EBS_instanceA
14	4	businessObjectType	CONSTANT			PO_HEADERS
15	4	businessObjectKey1	CONSTANT			PO_HEADER_ID
16	4	businessObjectValue1	DATA	PosViewHeadersVO	PO_HEADER_ID	
17	5	application	CONSTANT			EBS_instanceA
18	5	businessObjectType	CONSTANT			PO_VENDORS
19	5	businessObjectKey1	CONSTANT			VENDOR_ID
20	5	businessObjectValue1	DATA	SupplierVO	VendorID	
21	6	application	CONSTANT			EBS_instanceA

Table B-31   (Cont.) Example OAF_AXF_CMD_PARAMS Table for 12c

AXF_CMD_PARAMS_ID	AXF_CMDS_ID	AXF_PARAM_NAME	AXF_DATASOURCE	AXF_VIEW_OBJ_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
22	6	businessObjectType	CONSTANT			PON_AUCTION_HEADERS_ALL
23	6	businessObjectKey1	CONSTANT			AUCTION_HEADER_ID
24	6	businessObjectValue1	DATA	AuctionHeadersAllVO	AuctionHeaderId	
25	7	application	CONSTANT			EBS_instanceA
26	7	businessObjectType	CONSTANT			PON_AUCTION_ITEM_PRICES_ALL
27	7	businessObjectKey1	CONSTANT			AUCTION_HEADER_ID
28	7	businessObjectValue1	DATA	ActionItemPricesAllVO	AuctionHeaderId	
29	7	businessObjectKey2	CONSTANT			LINE_NUMBER
30	7	businessObjectValue2	DATA	AuctionItemPricesAllVO	LineNumbers	
31	8	application	CONSTANT			EBS_instanceA
32	8	businessObjectType	CONSTANT			PA_PROJECTS
33	8	businessObjectKey1	CONSTANT			PROJECT_ID
34	8	businessObjectValue1	DATA	ProjAttachmentsVO	PROJECT_ID	

Note: *CS_WEBKEY* parameter refers to the context root of the Content Server that E-Business Suite is connected to. If the value of the context root is anything other than *cs*, you can modify the value in the table.

Table B-32   Example OAF_AXF_CMD_PARAMS Table for 11g

Table B-32 (Cont.) Example OAF_AXF_CMD_PARAMS Table for 11g

AXF_CMD_PARAMS_ID	AXF_CMDS_ID	AXF_PARAM_NAME	AXF_DATASOURCE	AXF_VIEW_OBJ_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
1	1	application	CONSTANT			EBS_instanceA
2	1	businessObjectType	CONSTANT			REQ_HEADERS
3	1	businessObjectKey1	CONSTANT			REQUISITION_HEADER_ID
4	1	businessObjectValue1	DATA	ReqHeaderVO	RequisitionHeaderId	
5	1	labelValue1	DATA	ReqHeaderVO	PreparerName	
6	1	labelValue2	DATA	ReqHeaderVO	ReqNum	
7	1	businessObjectContext	CONSTANT			ScanContext
8	3	application	CONSTANT			EBS_instanceA
9	3	businessObjectType	CONSTANT			PO_HEADERS_MERGE_V
10	3	businessObjectKey1	CONSTANT			PO_HEADER_ID
11	3	businessObjectValue1	DATA	POHeaderMergeVO	POHeaderId	
12	4	application	CONSTANT			EBS_instanceA
13	4	businessObjectType	CONSTANT			PO_HEADERS
14	4	businessObjectKey1	CONSTANT			PO_HEADER_ID
15	4	businessObjectValue1	DATA	PosViewHeadersVO	PO_HEADER_ID	
16	5	application	CONSTANT			EBS_instanceA
17	5	businessObjectType	CONSTANT			PO_VENDORS
18	5	businessObjectKey1	CONSTANT			VENDOR_ID
19	5	businessObjectValue1	DATA	SupplierVO	VendorID	

Table B-32   (Cont.) Example OAF_AXF_CMD_PARAMS Table for 11g

AXF_CMD_PARAMS_ID	AXF_CMDS_ID	AXF_PARAM_NAME	AXF_DATASOURCE	AXF_VIEW_OBJ_NAME	AXF_ATTRIBUTE_NAME	AXF_CONSTANT_VALUE
20	6	application	CONSTANT			EBS_instanceA
21	6	businessObjectType	CONSTANT			PON_AUCTION_HEADERS_ALL
22	6	businessObjectKey1	CONSTANT			AUCTION_HEADER_ID
23	6	businessObjectValue1	DATA	AuctionHeadersAllVO	AuctionHeaderId	
24	7	application	CONSTANT			EBS_instanceA
25	7	businessObjectType	CONSTANT			PON_AUCTION_ITEM_PRICES_ALL
26	7	businessObjectKey1	CONSTANT			AUCTION_HEADER_ID
27	7	businessObjectValue1	DATA	ActionItemPricesAllVO	AuctionHeaderId	
28	7	businessObjectKey2	CONSTANT			LINE_NUMBER
29	7	businessObjectValue2	DATA	AuctionItemPricesAllVO	LineNumbers	
30	8	application	CONSTANT			EBS_instanceA
31	8	businessObjectType	CONSTANT			PA_PROJECTS
32	8	businessObjectKey1	CONSTANT			PROJECT_ID
33	8	businessObjectValue1	DATA	ProjAttachmentsVO	PROJECT_ID	

B.4 Oracle PeopleSoft Tables For the Managed Attachments Solution

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

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

- PS_AXF_CONFIG Table

- PS_AXF_COMMANDS Table

- PS_AXF_CMD_PARAMS Table

- PS_AXF_PROPERTIES Table

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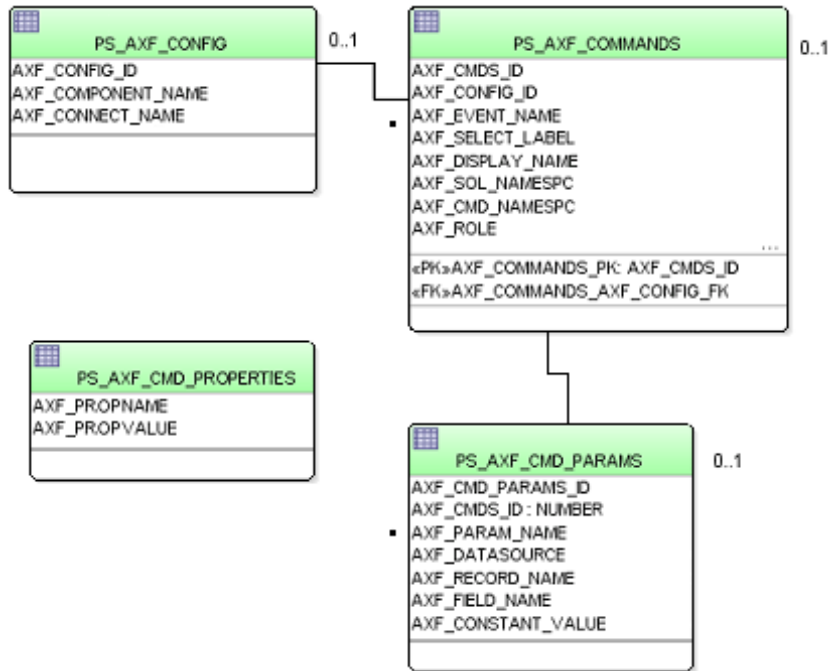
Note:

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

B.4.1 PS_AXF_CONFIG Table

Use the PS_AXF_CONFIG table to enable the AXF solution on various Oracle PeopleSoft components. This table provides a fine level of granularity when selecting which pages and components to AXF-enable.

Events are automatically invoked when an action is performed on an Oracle PeopleSoft page. The AXF_PS_Integration project component catches PRE- and POST-save events and makes them available for customization. You can decide which events to use and how and when to use them.

Column Description

Table B-33   Column Description for PS_AXF_CONFIG Table

Column	Description
AXF_CONFIG_ID	Specifies the primary key of the table.

Table B-33   (Cont.) Column Description for PS_AXF_CONFIG Table

Column	Description
AXF_COMPONENT_NA ME	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.

Example Implementation

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

Table B-34   Example PS_AXF_CONFIG Table

AXF_CONFIG_ID	AXF_COMPONENT_NAME	AXF_CONNECT_NAME	AXF_VERSION
101	WM_WO	AXF_EXECUTE	11g
102	CA_HDR_PNG	AXF_EXECUTE	11g
103	REQUISITIONS	AXF_EXECUTE	11g

B.4.2 PS_AXF_COMMANDS Table

Use the PS_AXF_COMMANDS table to describe the actions to take based on user activity. This table works with the PS_AXF_CONFIG Table.

Column Description

Table B-35   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

Table B-35   (Cont.) Column Description for PS_AXF_COMMANDS Table

Column	Description
AXF_SELECT_LABEL	Represents the label that for display if using a drop-down component (for example, AXF_COMBO_1).
AXF_DISPLAY_NAME	Defines the name of the button or link to display on the Oracle PeopleSoft page.
AXF_SOL_NAMESPC	Identifies the solution namespace for the command to execute.
AXF_CMD_NAMESPC	Identifies the command namespace for the command to execute.
AXF_PSFT_ROLE	Identifies the Oracle PeopleSoft roles with access to the command. Include roles in a comma-delimited list with each role enclosed in single quotes (for example, 'Role1','Role2','Role3')
AXF_SORT_ORDER	Specifies the order of items displayed in a selection field. Sort order applies to selection fields only.
AXF_REQ_CONV	Specifies if a conversation is required for this command before execution. For example, execution of the UpdateTask command requires a conversation be running in order for the user to select a current task.

Example Implementation

This example shows the UCM_Managed_Attachments command added as a link to an Oracle PeopleSoft page.

You must specify an Oracle PeopleSoft Role in the AXF_PSFT_ROLE field to give permissions to use the commands. If a person does not have proper permissions to use the commands, the commands do not display. If the commands display but do not function, this indicates that the commands are not configured properly.

Table B-36   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
101	101	AXF_LINK_1	(null)	Managed Attachments	UCM_Managed_Attachments	UCM_Managed_Attachments	'Employee'	1	N
102	102	AXF_LINK_1	(null)	Managed Attachments	UCM_Managed_Attachments	UCM_Managed_Attachments	'Employee'	1	N
103	103	AXF_LINK_1	(null)	Managed Attachments	UCM_Managed_Attachments	UCM_Managed_Attachments	'Employee'	1	N

B.4.3 PS_AXF_CMD_PARAMS Table

Use the PS_AXF_COMMAND_PARAMS table to specify the information sent for each defined command. Each command may require or omit a different set of parameters.

Use the PS_AXF_CMD_PARAMS Table to configure a label for the list of attachments. You can use a combination of constant and data values to display key information. Similar to configuring labels, you can also add rows to pass in extra metadata values, as described in Passing Extra Metadata Values From a Business Application to Content Server.

Column Description

Table B-37   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.
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 Placing AXF Components on Oracle PeopleSoft Pages. • 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. • extra*ParamName*: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See Passing Extra Metadata Values From a Business Application to Content Server.
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.

Example Implementation

This example shows the information sent for the UCM_Managed_Attachments command, including its application and business object type.

- The labelValue entries are configured to display key labels/values for the attachment. For example, the labelValues configuration in this table might display the following for work orders on the Managed Attachments page:

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

Table B-38   Example PS_AXF_CMD_PARAMS Table for 12c

AXF_CMD_ PARAM_ID	AXF_CMD_ ID	AXF_PARAM_N AME	AXF_DATA SOURCE	AXF_RECORD_N AME	AXF_FIELD_N AME	AXF_CONS TANT_VAL UE
101	101	application	CONSTAN T			PSFT_INST ANCE_A
102	101	businessObjectT ype	CONSTAN T			WM_WO_ HDR
103	101	businessObject Key1	CONSTAN T			BUSINESS_ UNIT
104	101	businessObject Value1	DATA	WM_WO_HDR	BUSINESS_U NIT	
105	101	businessObject Key2	CONSTAN T			WO_ID
106	101	businessObject Value2	DATA	WM_WO_HDR	WO_ID	
107	101	labelValue1	CONSTAN T			Business Unit
108	101	labelValue2	DATA	WM_WO_HDR	BUSINESS_U NIT	
109	101	labelValue3	CONSTAN T			Work Order
110	101	labelValue4	DATA	WM_WO_HDR	WO_ID	
111	101	businessObjectC ontext	CONSTAN T			ScanContex t
112	101	CS_WEBKEY				cs
113	102	application	CONSTAN T			PSFT_INST ANCE_A
114	102	businessObjectT ype	CONSTAN T			CA_CONT R_HDR
115	102	businessObject Key1	CONSTAN T			BUSINESS_ UNIT
116	102	businessObject Value1	DATA	CA_CONTR_HDR	BUSINESS_U NIT	

Table B-38   (Cont.) Example PS_AXF_CMD_PARAMS Table for 12c

AXF_CMD_ PARAM_ID	AXF_CMD_ ID	AXF_PARAM_N AME	AXF_DATA SOURCE	AXF_RECORD_N AME	AXF_FIELD_N AME	AXF_CONS TANT_VAL UE
117	102	businessObject Key2	CONSTAN T			CONTRAC T_NUM
118	102	businessObject Value2	DATA	CA_CONTR_HDR	CONTRACT_ NUM	
119	102	labelValue1	CONSTAN T			Business Unit
120	102	labelValue2	DATA	CA_CONTR_HDR	BUSINESS_U NIT	
121	102	labelValue3	CONSTAN T			Contract Number
122	102	labelValue4	DATA	CA_CONTR_HDR	CONTRACT_ NUM	
123	103	application	CONSTAN T			PSFT_INST ANCE_A
124	103	businessObjectT ype	CONSTAN T			REQ_HDR
125	103	businessObject Key1	CONSTAN T			BUSINESS_ UNIT
126	103	businessObject Value1	DATA	REQ_HDR	BUSINESS_U NIT	
127	103	businessObject Key2	CONSTAN T			REQ_ID
128	103	businessObject Value2	DATA	REQ_HDR	REQ_ID	
129	103	labelValue1	CONSTAN T			Business Unit
130	103	labelValue2	DATA	REQ_HDR	BUSINESS_U NIT	
131	103	labelValue3	CONSTAN T			Requisition
132	103	labelValue4	DATA	REQ_HDR	REQ_ID	

Note: *CS_WEBKEY* parameter refers to the context root of the Content Server that Oracle PeopleSoft is connected to. If the value of the context root is anything other than *cs*, you can modify the value in the table.

Table B-39   Example PS_AXF_CMD_PARAMS Table for 11g

AXF_CMD_PARAM_ID	AXF_CMD_ID	AXF_PARAM_NAME	AXF_DATA_SOURCE	AXF_RECORD_NAME	AXF_FIELD_NAME	AXF_CONSTANT_VALUE
101	101	application	CONSTANT			PSFT_INSTANCE_A
102	101	businessObjectType	CONSTANT			WM_WO_HDR
103	101	businessObjectKey1	CONSTANT			BUSINESS_UNIT
104	101	businessObjectValue1	DATA	WM_WO_HDR	BUSINESS_UNIT	
105	101	businessObjectKey2	CONSTANT			WO_ID
106	101	businessObjectValue2	DATA	WM_WO_HDR	WO_ID	
107	101	labelValue1	CONSTANT			Business Unit
108	101	labelValue2	DATA	WM_WO_HDR	BUSINESS_UNIT	
109	101	labelValue3	CONSTANT			Work Order
110	101	labelValue4	DATA	WM_WO_HDR	WO_ID	
111	101	businessObjectContext	CONSTANT			ScanContext
112	102	application	CONSTANT			PSFT_INSTANCE_A
113	102	businessObjectType	CONSTANT			CA_CONTR_HDR
114	102	businessObjectKey1	CONSTANT			BUSINESS_UNIT
115	102	businessObjectValue1	DATA	CA_CONTR_HDR	BUSINESS_UNIT	
116	102	businessObjectKey2	CONSTANT			CONTRACT_NUM
117	102	businessObjectValue2	DATA	CA_CONTR_HDR	CONTRACT_NUM	
118	102	labelValue1	CONSTANT			Business Unit

Table B-39   (Cont.) Example PS_AXF_CMD_PARAMS Table for 11g

AXF_CMD_ PARAM_ID	AXF_CMD_ ID	AXF_PARAM_N AME	AXF_DATA SOURCE	AXF_RECORD_N AME	AXF_FIELD_N AME	AXF_CONS TANT_VAL UE
119	102	labelValue2	DATA	CA_CONTR_HDR	BUSINESS_U NIT	
120	102	labelValue3	CONSTAN T			Contract Number
121	102	labelValue4	DATA	CA_CONTR_HDR	CONTRACT_ NUM	
122	103	application	CONSTAN T			PSFT_INST ANCE_A
123	103	businessObjectT ype	CONSTAN T			REQ_HDR
124	103	businessObject Key1	CONSTAN T			BUSINESS_ UNIT
125	103	businessObject Value1	DATA	REQ_HDR	BUSINESS_U NIT	
126	103	businessObject Key2	CONSTAN T			REQ_ID
127	103	businessObject Value2	DATA	REQ_HDR	REQ_ID	
128	103	labelValue1	CONSTAN T			Business Unit
129	103	labelValue2	DATA	REQ_HDR	BUSINESS_U NIT	
130	103	labelValue3	CONSTAN T			Requisition
131	103	labelValue4	DATA	REQ_HDR	REQ_ID	

B.4.4 PS_AXF_PROPERTIES Table

Use the PS_AXF_PROPERTIES table to define properties for AXF integration with Oracle PeopleSoft. See Resizing Oracle PeopleSoft Popup Solution Windows.

Column Description

Table B-40   Column Description for PS_AXF_PROPERTIES Table

Table B-40   (Cont.) Column Description for PS_AXF_PROPERTIES Table

Column	Description
AXF_PROPNAME	Specifies properties to use. Properties include: • WINDOW_HEIGHT: Specify the popup window's height in pixels. (This refers to any popup window that displays as part of the solution.) • WINDOW_WIDTH: Specify the popup window's width in pixels.
AXF_PROPVALUE	Specifies the property's value.

Example Implementation

This example table shows the default properties values.

Table B-41   Example PS_AXF_PROPERTIES Table

AXF_PROPNAME	AXF_PROPVALUE
WINDOW_HEIGHT	600
WINDOW_WIDTH	800

B.5 Content Server Tables For the Managed Attachments Solution

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

The adapter utilizes the following additional database tables:

- AFGrants Table
- AFObjects Table
- AFRelationshipAttributes Table
- AFKeys Table

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

B.5.1 AFGrants Table

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

Column Description

Table B-42   Column Description for AFGrants Table

Columns	Description
dUserName	Stores the name of the user.

Table B-42   (Cont.) Column Description for AFGrants Table

Columns	Description
dAFApplication	Stores the business application's instance name (for example, PSFT_Instance1).
dAFBusinessObject	Stores the business application's object
dAFBusinessObjectType	Stores the business application's object type
dPrivilege	Stores the privilege to grant to the user: R (read), W (write), D (delete), or A (admin). This parameter is required. If not specified, the access level specified for the AppAdapterGrantPrivilege configuration variable is used, as described in Configuring Managed Attachments Settings.
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.5.2 AFObjects Table

This table maps Content Server documents to AF business objects, in an N-to-N relationship, which enables multiple content items to be associated with a single business object and multiple business objects to contain the same content item.

Each time a user attaches or detaches a document, a record is added or updated in this table.

Column Description

Table B-43   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 Configuring Revision-Specific Mode.

B.5.3 AFRelationshipAttributes Table

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

Column Description

Table B-44   Column Description for AFRelationshipAttributes Table

Columns	Description
dAFID	Stores the unique ID of each attachment.
attribute	Stores the relationship attribute name.
value	Stores the value of the relationship attribute the user selected.

B.5.4 AFKeys Table

This table stores individual key values for later reference.

The business applications support up to five primary key/value combinations, which can be used instead of dAFBusinessObject to represent a business entity. In a Managed Attachments solution, these keys are mapped to dAFBusinessObject by concatenating the PK_Value fields separated by a | (pipe) character. The original PK_Key and PK_Values are logged to the AFKeys table before performing the mapping operation.

Column Description

Table B-45   Column Description for AFKeys Table

Columns	Description
dAFApplication	Stores the business application's instance name.
dAFBusinessObjectType	Stores the business application's object type.
dAFBusinessObject	Stores the business object's ID in the business application instance.
PK1_Key ... PK5_Key	Stores up to five key/value combinations.
PK1_Value ... PK5_Value	Stores up to five key/value combinations.