Oracle® WebCenter
Administrator’s Guide for Application Adapters
11g Release 1 (11.1.1)
E17953-02

November 2011
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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### A.1.1 AXF_SOLUTIONS Table

<table>
<thead>
<tr>
<th>Column Description</th>
<th>Example Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### A.1.2 AXF_SOLUTION_ATTRIBUTES Table

<table>
<thead>
<tr>
<th>Column Description</th>
<th>Example Implementation</th>
</tr>
</thead>
<tbody>
<tr>
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### A.1.3 AXF_COMMANDS Table

<table>
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<tr>
<th>Column Description</th>
<th>Example Implementation</th>
</tr>
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<tbody>
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### A.1.4 AXF_SOLUTION_PARAMETERS Table

<table>
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<tr>
<th>Column Description</th>
<th>Example Implementation</th>
</tr>
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</table>

### A.1.5 AXF_ACTION_MENU Table

<table>
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<th>Column Description</th>
<th>Example Implementation</th>
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</tbody>
</table>

### A.1.6 AXF_ACTIONS Table

<table>
<thead>
<tr>
<th>Column Description</th>
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</tr>
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</table>

### A.1.7 AXF_XPATH_ATTRIBUTES Table

<table>
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<th>Example Implementation</th>
</tr>
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### A.1.8 AXF_XPATH_NAMESPACES Table

<table>
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<th>Column Description</th>
<th>Example Implementation</th>
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</tbody>
</table>

### A.1.9 AXF_METADATA_ATTRIBUTES Table

<table>
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<th>Column Description</th>
<th>Example Implementation</th>
</tr>
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</table>

### A.1.10 AXF_METADATA_BLOCKS Table

<table>
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<th>Column Description</th>
<th>Example Implementation</th>
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<tbody>
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</table>

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<table>
<thead>
<tr>
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<th>Example Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Audience**

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

**Documentation Accessibility**

For information about Oracle’s commitment to accessibility, visit the Oracle Accessibility Program website at 

**Access to Oracle Support**

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

**Related Documents**

For end-user adapter information, see the *Oracle WebCenter User’s Guide for Application Adapters*.

**Conventions**

The following text conventions are used in this document:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>boldface</td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td>italic</td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td>monospace</td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
</tbody>
</table>
What's New

This section describes new Oracle WebCenter application adapter features starting with 11g Release 1 (11.1.1.6.0). It contains the following topics:

- "Managed Attachments Solution Features Added"
- "Imaging Solution Features Added"

Managed Attachments Solution Features Added

The following table describes Managed Attachments solution features included with the application adapters.

Note: For information about additional certifications, such as for Oracle E-Business Suite or Oracle PeopleSoft plug-ins, see supported configuration and certification information at:


<table>
<thead>
<tr>
<th>Managed Attachments Solution Features</th>
<th>Description</th>
<th>Refer To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for Oracle E-Business Suite OAF applications</td>
<td>Integrate Managed Attachments functionality into OAF (Oracle Application Framework) pages by adding a Managed Attachments button via page personalization and configuration.</td>
<td>Section 2.3, &quot;Configuring Oracle Application Framework (OAF) Pages Via Personalization.&quot;</td>
</tr>
<tr>
<td>Support for configuring Managed Attachments on other business applications</td>
<td>Using the Enterprise Application Adapter Framework component, integrate Managed Attachments functionality into a business application other than Oracle E-Business Suite or Oracle PeopleSoft.</td>
<td>Section 6.4, &quot;Configuring the Enterprise Application Adapter Framework.&quot;</td>
</tr>
<tr>
<td>Administration interface for customizing Managed Attachments functionality</td>
<td>As an alternative to editing the preferences.hda file, use this interface to configure global variables and add attachment relationships and entity-specific configurations.</td>
<td>Section 6.5.1, &quot;Working With Global Configuration Variables.&quot;</td>
</tr>
</tbody>
</table>
**Imaging Solution Features Added**

The following table describes new Imaging solution features included with the application adapters.

<table>
<thead>
<tr>
<th>Managed Attachments Solution Features</th>
<th>Description</th>
<th>Refer To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customization variables added</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• AppAdapterCheckinPrivate: Enables you to make private document checkin the default when users check in documents, instead of shared.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• AppAdapterExtraCheckinMetadata and AppAdapterExtraScanMetadata: See item that follows in this table regarding passing extra metadata.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• AppAdapterHelpIconVisible: Enables you to display or hide the user Help icon on the Managed Attachments screen.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• AppAdapterViewUnreleased: Enables you to display or hide documents in the attachments list before they are released.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In addition, <strong>ResultCount</strong> (number of attachments to display per page) and <strong>SearchEngineName</strong> (search engine to use) are now variables you can set and modify in the Configure Managed Attachments screen.</td>
<td>Section 6.5.1, &quot;Working With Global Configuration Variables.&quot;</td>
<td></td>
</tr>
<tr>
<td>Pass extra metadata for use in Content Server</td>
<td>Enables you to pass metadata on the AXF grant call to be prepopulated during checkin.</td>
<td>Section 6.6.14, &quot;Passing Extra Metadata Values From a Business Application to Content Server.&quot;</td>
</tr>
<tr>
<td>Simplified URL displayed to end-users</td>
<td>A ticket mechanism now hides detail such as business object IDs from end-users on the Managed Attachments URL.</td>
<td></td>
</tr>
<tr>
<td>CSF enhancements in the Managed Attachments security model</td>
<td>You must now store administrator credentials in a credential store framework (CSF) using a configurable key name. The Managed Attachments solution compares the username sent by Oracle E-Business Suite or Oracle PeopleSoft in the Web Services call with the username stored in the CSF. If the administrator usernames do not match, an exception occurs that prevents access to the Managed Attachments page.</td>
<td>Section 6.7.1, &quot;Configuring a CSF Credential for Managed Attachments.&quot;</td>
</tr>
<tr>
<td>Resize Oracle PeopleSoft Popup Solution Windows</td>
<td>You can change or remove the default system-wide size for all Oracle PeopleSoft popup windows that display as part of solutions.</td>
<td>Section 5.4.12, &quot;Resizing Oracle PeopleSoft Popup Solution Windows&quot; and Section 6.6.15, &quot;Resizing Oracle PeopleSoft Popup Solution Windows.&quot;</td>
</tr>
<tr>
<td>Private attachments security group configurable for specific business entity</td>
<td>On a per entity level, you can override the default security group for private attachments, and assign documents to an alternate security group.</td>
<td>Section 6.6.16, &quot;Configuring an Entity’s Private Attachments Security Group.&quot;</td>
</tr>
<tr>
<td>Users can search within the attachments list</td>
<td>If viewing many attachments on the Managed Attachments screen, users can perform a search within the attachments list (for example, search for a document by its name).</td>
<td>&quot;Searching Within the Attachments List&quot; in Oracle WebCenter User’s Guide for Application Adapters.</td>
</tr>
</tbody>
</table>

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**Imaging Solution Features Added**

After solution configuration, use the Solution Editor in Imaging to quickly make changes to the web tools without directly modifying the underlying tables. For example, change BPEL views available in the Task List, task actions listed in the Task Viewer, or enumeration values available on an Enumeration Picker page.

<table>
<thead>
<tr>
<th>Imaging Solution Features</th>
<th>Description</th>
<th>Refer To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration interface (Solution Editor) for making web tool changes</td>
<td>After solution configuration, use the Solution Editor in Imaging to quickly make changes to the web tools without directly modifying the underlying tables. For example, change BPEL views available in the Task List, task actions listed in the Task Viewer, or enumeration values available on an Enumeration Picker page.</td>
<td>Section A.2.1, &quot;Solution Editor&quot;</td>
</tr>
<tr>
<td>Imaging Solution Features</td>
<td>Description</td>
<td>Refer To</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Account Distribution Coding Form</td>
<td>This reusable AXF web interface allows for entering and selecting detailed document information, including line-item level values. The invoicing processing solution accelerator uses the coding form to provide an account distribution entry form for qualified users to enter codes for non-PO invoices.</td>
<td>Section A.2.6, &quot;Account Distribution Coding Form (Oracle E-Business Suite Only)&quot;</td>
</tr>
<tr>
<td>Using Imaging with OAF applications</td>
<td>Optionally you can provide access to the Imaging solution instead of the Managed Attachments solution on OAF (Oracle Application Framework) pages. For example, include a button that allows users to access the supplier maintenance functionality available in the Imaging solution.</td>
<td>Section 2.3.3, &quot;Configuring Other Services on OAF Pages (Optional)&quot;</td>
</tr>
<tr>
<td>Searching for tasks in the Task List</td>
<td>If viewing many tasks in a Task List, users can search for a specific task by a key identifier. For example, users might search for an invoice task by its invoice number.</td>
<td>&quot;Searching for Tasks&quot; in Oracle WebCenter User’s Guide for Application Adapters</td>
</tr>
<tr>
<td>Sorting tasks in the Task List</td>
<td>End-users can sort the Task List in ascending or descending order by clicking a column heading.</td>
<td>&quot;Sorting Tasks&quot; in Oracle WebCenter User’s Guide for Application Adapters</td>
</tr>
</tbody>
</table>
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.

This chapter covers the following topics:

- Section 1.1, "About Application Extension Framework (AXF)"
- Section 1.2, "About the Imaging Solution"
- Section 1.3, "About the Managed Attachments Solution"
- Section 1.4, "About the Adapter Components"
- Section 1.5, "About Adapter Security and Authentication"
- Section 1.6, "Adapter System Requirements"
- Section 1.7, "Adapter Configuration Roadmap"

### 1.1 About Application Extension Framework (AXF)

Oracle WebCenter Content 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 Server.

An **AXF solution** is a micro-application whose components are created using the AXF infrastructure. Solutions are installed on top of a base configuration of core AXF and business application files standard to solutions that use AXF functionality. The open Java-based architecture of AXF enables integrators to configure and modify multiple business process solutions separate from the systems themselves, and to upgrade systems without affecting implemented AXF solutions.

**Note:** AXF is included in Imaging installation.

The Application Extension Framework includes the following components:
AXF Solution Implementation Accelerators
Oracle provides implementation accelerators for specific functions, such as automating invoice and receipt processing using BPEL-based workflows with associated approval rules, data entry forms, and reports.

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

AXF Commands
AXF provides reusable commands for implementing functionality.

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

AXF Web Tools
AXF provides web interface components for display to users, such as a task list and task viewer. These web tools are used in the Imaging solution and configured through the AXF tables; they can be modified using Imaging’s Solution Editor. They are described in Section 1.2.4.

AXF Configuration Database Tables
You configure AXF solutions, commands, and web tools by configuring the AXF database tables, which are WebCenter Imaging tables.

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

- In Oracle E-Business Suite Forms applications, AXF-related tables specify which screens are enabled to execute AXF commands.
- In Oracle E-Business Suite applications built using Oracle Applications Framework (OAF), AXF-related tables enable AXF components on Oracle E-Business Suite OAF pages. (OAF functionality currently applies to Managed Attachments use only.)
- In Oracle PeopleSoft, AXF-related tables enable AXF components on Oracle PeopleSoft pages.

1.2 About the Imaging Solution
A workflow Imaging solution is an integration between a business application and BPEL (Oracle BPEL Process Manager), using Imaging as the imaging source, as illustrated in Figure 1–1. Through an AXF configuration, business users can process associated images and perform document-centric workflow tasks from their business application user interface.
This section covers the following topics:

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

1.2.1 Business User View For the Imaging Solution

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

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

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

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

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

4. In the Task Viewer, users view the task’s invoice image, key entries in the business application based on the image, and perform related commands.
   Additional action commands are typically provided in a side panel. Users might route the task to another user or user group for approval, add comments for others to view, skip the task, or re-scan or delete the task’s document.

5. Users complete the task and begin another, if desired.
   Most often, changes users make in the business application are synchronized with Imaging, and vice versa.

**Note:** For details about Imaging Solution user tasks, see the *Oracle WebCenter User’s Guide for Application Adapters.*

1.2.1.2 Imaging Scenario 2: Capturing Supporting Employee Documents
An Imaging Solution configured for capturing supporting documents might work as follows:

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

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

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

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

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

1.2.1.3 Imaging Scenario 3: Viewing Supporting Employee Documents
An Imaging Solution configured for viewing supporting documents might work as follows:

1. From the business application, a user retrieves a record such as an employee record.
2. A user launches the document imaging solution, by clicking a button or link or selecting a command called **View Employee Documents**.

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

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

### 1.2.2 Imaging Solution System Architecture

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

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

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

*Figure 1–3* illustrates an Imaging solution configuration for the Oracle PeopleSoft adapter.
1.2.3 About AXF Commands Used By the Imaging Solution

The reusable AXF commands allow you to implement the functionality described below. For information about these commands, including their parameters and example implementations, see Section A.3.

<table>
<thead>
<tr>
<th>AXF Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Task</td>
<td>Displays the AXF Task Viewer web page and claims a human workflow task. See Section A.3.1.</td>
</tr>
<tr>
<td>Autotask</td>
<td>Displays autotask mode, in which a new human workflow task is automatically claimed in the AXF Task Viewer without displaying the Task List. See Section A.3.2.</td>
</tr>
<tr>
<td>Release Task</td>
<td>Releases a human workflow task, and, if configured, executes additional actions. See Section A.3.3.</td>
</tr>
<tr>
<td>Complete Task</td>
<td>Completes a human workflow task, and, if configured, updates BPEL payload attribute values and executes additional actions. See Section A.3.4.</td>
</tr>
<tr>
<td>Redirect</td>
<td>Redirects the current AXF web page to any URL or AXF web page specified in the configuration. See Section A.3.5.</td>
</tr>
<tr>
<td>Terminate Conversation</td>
<td>Used by an external client to terminate a conversation with AXF. (This command does not include parameters.)</td>
</tr>
<tr>
<td>Update Task</td>
<td>Updates BPEL payload field values on a specified human task or values in the XML payload using XPATH. See Section A.3.6.</td>
</tr>
<tr>
<td>Update Task From Procedure</td>
<td>Calls a stored procedure using a specified data source and updates values in the BPEL payload using XPATH. See Section A.3.7.</td>
</tr>
</tbody>
</table>
1.2.4 About AXF Web User Tools

The Imaging Solution provides the following user interface components. These are web interface components displayed to users and configured through the AXF tables. Once populated, you can modify the web tools using Imaging’s Solution Editor, as described in Section A.2.1, "Solution Editor."

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

### 1.2.4.1 About the Task List

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

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

For configuration information, see Section A.2.2, "Task List Web Tool."
The Task List web tool can also display a list of AXF actions, using AXF action commands.

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

For configuration information, see Section A.2.3, "Task Viewer Web Tool."

Figure 1–5  Task Viewer Web Tool
1.2.4.3 About the Enumeration Picker
The Enumeration Picker web page shown in Figure 1–6 enables users to select from a list of enumerated values.

For configuration information, see Section A.2.4, "Enumeration Picker Web Tool."

Figure 1–6 Enumeration Picker Web Tool

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

For configuration information, see Section A.2.5, "Identity Picker Web Tool."

Figure 1–7 Identity Picker Web Tool
1.2.4.5 About Comments

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

To view comments, users click the View Comments icon on the AXF web page, as shown below and in Figure 1–5. To add a comment, users click the Add Comment icon.

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

For configuration information, see Section A.2.3.3 and Section A.2.3.1.2.

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 screen launched from a link, button, or menu, depending on business application configuration. For example, a business application user displays an Employee record, invokes the Managed Attachment functionality by clicking a button, 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 Section 6.4, "Configuring the Enterprise Application Adapter Framework."
The Managed Attachments Solution, shown in Figure 1–10, enables business users to attach, scan, and retrieve attachments stored in a Content Server repository. An Oracle WebCenter Content Server repository enables users throughout an enterprise to view, collaborate on, and retire content, ensuring that content is secure, accurate, and up-to-date.

Figure 1–10  Managed Attachments Screen

This section covers the following topics:

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

### 1.3.1 Business User View For the Managed Attachments Solution

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

- Check in new documents to Content Server and attach them to the selected business application entity
- Scan and import documents using Oracle Distributed Document Capture, attaching them to the selected business application
- Open documents in their native application, Web-viewable format, or AutoVue viewer (if configured)
- Detach documents from the selected business application entity
- Search 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
About the Managed Attachments Solution

1.3.1.1 Attachments Scenario 1: Capturing Identity Documents
A Managed Attachments solution configured for capturing employee identity documents such as passports might work as follows:

1. From the business application, a user retrieves a record such as an employee record.
2. The user launches the Managed Attachments solution, by selecting a command or clicking a link or button called **Scan Employee Document**.
3. Oracle Distributed Document Capture launches and automatically initiates a scan (if a scanner is attached to the desktop) or enables the user to upload electronic images from desktop.
4. The user selects attachment settings, clicks **Scan Document**, then enters index values (metadata) in Oracle Distributed Document Capture to store with the images.
5. The user clicks **Send**, which transmits the captured document images and their metadata from Oracle Distributed Document Capture to 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 screen displays, listing attachments for the employee record.
4. An attachment may show its revision number, and if it was checked out by the user or another user. If revision-specific mode has been configured and an older revision is attached, the user can either view the older attached revision or view the newer revision and make it the new attached version.
5. The user selects an attached document’s **Edit** icon. As the user makes updates to the document, it is checked out to the user and other users cannot edit it. When the user checks in the revised document, its revision number is incremented.
6. The document displays in 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.

**Note:** For details about Managed Attachments Solution user tasks, see the *Oracle WebCenter User’s Guide for Application Adapters*. 
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 \texttt{UCM Managed Attachments}, which invokes the \texttt{AF\_GRANT\_ACCESS} command.

The \texttt{AF\_GRANT\_ACCESS} command implements the \texttt{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 \texttt{AF\_GRANT\_ACCESS} service with the application entity and user information needing authorization. The \texttt{AF\_GRANT\_ACCESS} service grants access to the user for the specified period, then ends the user session.

### 1.3.3 Managed Attachments Solution System Architecture

The figures that follow illustrate the Managed Attachments architecture when installed for Oracle E-Business Suite Forms use (Figure 1–11), Oracle E-Business Suite OAF page use (Figure 1–12), and Oracle PeopleSoft use (Figure 1–13).
Figure 1–11  System Architecture for an Oracle E-Business Suite Forms Managed Attachments Solution

Figure 1–12  System Architecture for an Oracle E-Business Suite OAF Managed Attachments Solution
1.4 About the Adapter Components

The adapter includes the following main components:

**Application Extension Framework (AXF)**
AXF is included in Oracle WebCenter Content installation. AXF solution tables are automatically created during installation.

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

- Configuring the Oracle E-Business Suite plug-in consists of running PL/SQL scripts against the Oracle E-Business Suite database that populate tables and configure functionality.
  - 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. See Section 2, “Configuring the Oracle E-Business Suite Plug-In.”

- Configuring the Oracle PeopleSoft plug-in consists of importing the Oracle PeopleSoft project, configuring the Integration Broker to communicate with AXF, setting user roles, and enabling AXF functionality on Oracle PeopleSoft pages. See Section 3, “Configuring the Oracle PeopleSoft Suite Plug-In.”
Content Server Components
If using the Managed Attachments solution, this portion includes Content Server components bundled in ZIP files that you install and enable using Component Manager. They include the AppAdapter framework core files. See Section 6.3, "Configuring the Content Server Components."

1.5 About Adapter Security and Authentication
The adapters provide multiple security and authentication levels, which vary depending on the solution (Imaging or Managed Attachments) and the business application, as identified in Table 1–1.

<table>
<thead>
<tr>
<th>Table 1–1 Security Controls for the Adapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentication/ Security Level</td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
</tbody>
</table>
| Browser Level Authentication    | Oracle E-Business Suite and Oracle PeopleSoft | Imaging and Managed Attachments | Occurs when end-users invoke the solution from an Oracle E-Business Suite form or OAF page, or an Oracle PeopleSoft page configured for access.  
- For the Imaging solution, occurs when users access an AXF web tool or the Imaging viewer.  
- For the Managed Attachments solution, occurs when users access the Managed Attachments screen. | Authentication at this level is handled by Oracle WebLogic Server and configured during Oracle WebCenter Content installation. |
| Web Service Authentication      | Oracle E-Business Suite and Oracle PeopleSoft | Imaging and Managed Attachments | Occurs when web service calls are made to AXF. The solutions support user authentication against the AXF solution mediator web services using a user name token security installed on the application server on which AXF resides.  
- In Oracle E-Business Suite, set username token authentication using an AXF_SOAP_POLICY key in the properties table (AXF_PROPERTIES or OAF_AXF_PROPERTIES).  
- In Oracle PeopleSoft, configure the Integration Broker node that communicates to AXF with username token authentication. | For Oracle E-Business Suite, see Section 2.4.1, "Securing Communications Through SOAP Security."  
For Oracle PeopleSoft, see Section 3.2.2.1, "Configuring Communication With an 11g AXF Server." |
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:


---

**Table 1–1 (Cont.) Security Controls for the Adapter**

<table>
<thead>
<tr>
<th>Authentication/Security Level</th>
<th>Business Applications</th>
<th>Supported Solutions</th>
<th>Description</th>
<th>Configuration Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSL</td>
<td>Oracle E-Business Suite and Oracle PeopleSoft</td>
<td>Imaging and Managed Attachments</td>
<td>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.</td>
<td>For Oracle E-Business Suite, see Section 2.4.2, “Securing Communications Through SSL (Oracle E-Business Suite).” For Oracle PeopleSoft, see Section 3.2.1, “Securing Communications Through SSL (Oracle PeopleSoft).”</td>
</tr>
<tr>
<td>AXF to Content Server</td>
<td>Oracle E-Business Suite and Oracle PeopleSoft</td>
<td>Managed Attachments</td>
<td>Enable trusted communication between the host on which AXF is running and the Content Server.</td>
<td>See Section 6.7.4, “Securing Communications Between AXF and Content Server.”</td>
</tr>
<tr>
<td>Document Security</td>
<td>Oracle E-Business Suite and Oracle PeopleSoft</td>
<td>Managed Attachments</td>
<td>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 screen. Users can access shared documents through the Managed Attachments screen. Any Content Server user with the document’s security group access can access shared documents.</td>
<td>See Section 6.7.3, “Configuring Document Security.”</td>
</tr>
</tbody>
</table>

---

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

The Managed Attachments Solution has additional requirements, listed in Section 6.1.

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 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.

- 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 Oracle Containers for J2EE Security Guide.

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

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**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 Oracle Containers for J2EE Security Guide.

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

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

For the Imaging Solution, SOA 11g is required, along with available patch sets and a BPEL server instance. BPEL is part of SOA 11g. SOA 11g 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:


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### 1.7 Adapter Configuration Roadmap

This section lists the major configuration steps for the adapter.

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

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Refer To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure the Oracle E-Business Suite database by running PL/SQL scripts.</td>
<td>Section 2.1</td>
</tr>
<tr>
<td>Configure one or both Oracle E-Business Suite plug-ins:</td>
<td></td>
</tr>
<tr>
<td>- For Forms configuration, compile Oracle E-Business Suite Forms by modifying PLL files.</td>
<td>Section 2.2 (Forms)</td>
</tr>
<tr>
<td>- For OAF configuration, add the Managed Attachments button to OAF pages via personalization.</td>
<td>Section 2.3 (OAF)</td>
</tr>
<tr>
<td>Secure Oracle E-Business Suite to AXF communications via SOAP security and SSL.</td>
<td>Section 2.4</td>
</tr>
<tr>
<td>Configure Oracle E-Business Suite logging.</td>
<td>Section 2.5</td>
</tr>
</tbody>
</table>

2. If configuring the adapter for Oracle PeopleSoft, configure the PeopleSoft plug-in.
### 3. Configure AXF settings.

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Refer To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure AXF logging.</td>
<td>Section 4.1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Refer To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure the BPEL connection.</td>
<td>Section 5.1</td>
</tr>
<tr>
<td>Configure the AXF tables or apply a solution implementation accelerator.</td>
<td>Section 5.2</td>
</tr>
<tr>
<td>After initial configuration, use Imaging’s Solution Editor to edit web tools such as the Task List and Task Viewer.</td>
<td>Section A.2.1</td>
</tr>
<tr>
<td>Test functionality using the AXF driver page.</td>
<td>Section 5.3</td>
</tr>
<tr>
<td>Customize Imaging functionality as needed.</td>
<td>Section 5.4</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Refer To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure your configuration meets additional Managed Attachments system requirements.</td>
<td>Section 6.1</td>
</tr>
<tr>
<td>Run Managed Attachments installation scripts.</td>
<td>Section 6.2</td>
</tr>
<tr>
<td>Configure Content Server components.</td>
<td>Section 6.3</td>
</tr>
<tr>
<td>If configuring Managed Attachments for a business application other than Oracle E-Business Suite or Oracle PeopleSoft, configure the Enterprise Application Adapter Framework.</td>
<td>Section 6.4</td>
</tr>
<tr>
<td>Configure Managed Attachments variables.</td>
<td>Section 6.5</td>
</tr>
<tr>
<td>Customize Managed Attachments functionality as needed.</td>
<td>Section 6.6</td>
</tr>
<tr>
<td>Configure authentication and security.</td>
<td>Section 6.7</td>
</tr>
<tr>
<td>Configure document viewing with AutoVue (optional).</td>
<td>Section 6.8</td>
</tr>
<tr>
<td>Configure document scanning/importing with Oracle Distributed Document Capture (optional).</td>
<td>Section 6.9</td>
</tr>
</tbody>
</table>
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 Chapter 3, "Configuring the Oracle PeopleSoft Suite Plug-In."

This chapter covers the following topics:

- Section 2.1, "Configuring the Oracle E-Business Suite Database"
- Section 2.2, "Compiling Oracle E-Business Suite Forms"
- Section 2.3, "Configuring Oracle Application Framework (OAF) Pages Via Personalization"
- Section 2.4, "Securing Adapter Communications for Oracle E-Business Suite"
- Section 2.5, "Configuring Oracle E-Business Suite Logging"
- Section 2.6, "Setting User Locales"
- Section 2.7, "Configuring Solutions for Oracle E-Business Suite"
- Section 2.8, "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.

- Section 2.1.1, "Creating the AXF Oracle E-Business Suite Configuration Schema User (AXF)"
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.

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 Section 2.1.3, "Running the PL/SQL Scripts," regardless of whether you are configuring Forms and/or OAF applications.

<table>
<thead>
<tr>
<th>PL/SQL Procedure</th>
<th>Applies To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CREATE_TABLES_SYNONYM</td>
<td>Forms</td>
<td>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.</td>
</tr>
<tr>
<td>OAF_AXF_CREATE_TABLES_SYNONYM</td>
<td>OAF</td>
<td></td>
</tr>
<tr>
<td>AXF_EBS_PROPERTIES_DATA</td>
<td>Forms</td>
<td>Populates the AXF_PROPERTIES table with security information for various Oracle E-Business Suite calls to AXF.</td>
</tr>
<tr>
<td>AXF_APPS_INIT</td>
<td>Forms</td>
<td>Required for Oracle E-Business Suite attachment for Forms applications.</td>
</tr>
</tbody>
</table>
2.1.3 Running the PL/SQL Scripts

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

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

2. Using SQL*PLUS, log in to the Oracle E-Business Suite database as the AXF Oracle E-Business Suite configuration schema user (AXF).
   
   This user was previously created, as described in Section 2.1.1.

3. As the AXF user, execute the AXF_CREATE_TABLES_SYNONYM script from the applicable Oracle E-Business Suite location.
   
   To execute the script, enter:
   ```sql
   @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:
   ```sql
   @OAF_AXF_CREATE_TABLES_SYNONYM.sql
   ```
   
   Verify that the following tables were created: OAF_AXF_CMD_PARAMS, OAF_AXF_CMDS, OAF_AXF_CONFIGS, and OAF_AXF_PROPERTIES.
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_ATTACHMENT_AVAIL`, `AXF_MANAGED_ATTACHMENT_VALUES`, and `AXF_MANAGED_ATTACHMENT_DATA` scripts from the applicable Oracle E-Business Suite location.

   Execute the scripts by entering:

   `@AXF_MANAGED_ATTACHMENT_AVAIL.sql`

   `@AXF_MANAGED_ATTACHMENT_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.

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).


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

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

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

3. In Forms Builder, convert AXF_CUSTOM.pld to AXF_CUSTOM.pll.
In Oracle E-Business Suite 12, select File, then Convert.
In Oracle E-Business Suite 11, select File, then Administration, then Convert.
Select PL/SQL libraries and Text to binary while converting the file.

---

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

_PDE-PLI038 - Can not open file as a PL/SQL Library_

---

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

_PDE-PLI018 - Could not find library AXF_CUSTOM_

---

4. From the File menu, open AXF_CUSTOM.pll.
   - In Oracle E-Business Suite 12, select Program, then Compile pl/sql, then All.
   - In Oracle E-Business Suite 11, select Program, then Compile, then All.

5. Compile AXF_CUSTOM into a module (.plx).
   - In Oracle E-Business Suite 12, select Program, then Compile Module.
   - In Oracle E-Business Suite 11, select File, then Administration, then Compile File.

---

**Notes:**

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

---

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

7. Back up the CUSTOM.pll file.

---

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

---

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

- **For Managed Attachments Only or Both Solutions:**

  ```plsql
  function zoom_available return boolean is
  begin
    -- Required for ALL integrations
    return true;
  end zoom_available;
  ``

- **For Imaging Solution Only:**

  ```plsql
  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.

```plsql
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.pl1 open, verify that APPCORE and APPCORE2 are listed as attached libraries to AXF_CUSTOM.pl1. If not listed, attach them. If listed, detach and attach them.

14. With CUSTOM.pl1 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.

### 2.3 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.

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

- Section 2.3.1, "Compiling Java Files, Copying Class Files, and Importing XML Files"
- Section 2.3.2, "Personalizing OAF Pages to Add Managed Attachments"
- Section 2.3.3, "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 Section 2.3.2, you will add the button to a custom flex region from the MDS repository.
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 416708.1, 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
   ```

4. In the project properties, add the following OAF libraries:
   - BC4J Client
   - BC4J Runtime
   - Cabo
   - FND Libraries

5. Compile the Java files in the project.

6. Copy the class files 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:
     
     ```
     $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
     ```

---

**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
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
```

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, add this jar to the classpath of the import script:

```
$JDeveloper/jdevhome/oaext/lib/oamdsdt.jar
```

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

```sql
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.1dt 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.1dt
```
When prompted, enter the APPS user password.


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.

Notes: 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 screen, 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 screen 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 layout, for example).
   e. Click Apply.
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 screen displays, as shown in Figure 2–2.
   b. In the Item Style field, select Flexible Content.
   c. In the ID field, enter any value (test layout, for example).
   d. In the Extends field, enter the package for the flex region you imported into the MDS repository (in Section 2.3.1):

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

6. Click the Apply button.
2.3.3 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.

For configuration, you follow the same sections in Section 2.3, "Configuring Oracle Application Framework (OAF) Pages Via Personalization" to configure the MDS repository and add the button via personalization. The steps below provide 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 2 in Section 2.3.1, "Compiling Java Files, Copying Class Files, and Importing XML Files." (Step 2, which imports the ManagedAttachmentButtonRN.xml file, is not needed.)

2. Customize the sample XML file provided (SampleAXFButton.xml), modifying the button ID and prompt. For example, you might title the button Supplier Maintenance.

3. Import the XML file into the MDS Repository.
   - XML file to import: SampleAXFButton.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):
     ```bash
     ./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 $JAVA_TOP directory):
     ```bash
     ./import /$JAVA_TOP/SampleAXFButtonRN.xml -username appsUsername -password
     ```
Securing Adapter Communications for Oracle E-Business Suite

This section covers the following topics:

- Section 2.4.1, "Securing Communications Through SOAP Security"
- Section 2.4.2, "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).

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

3. Set the `AXF_SOAP_USER` value (for example, to `weblogic`). 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.

5. Verify the previous command with this statement:

   ```
   select fnd_vault.get ('AXF','AXF_SOAP_USER') 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.

- Section 2.4.2.1, "Configuring the Oracle Wallet"
- Section 2.4.2.2, "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/own
   ```
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 *Oracle Fusion Middleware Securing 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:
      
      ```sql
      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:
      
      ```sql
      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 Section A.4.2. For a Managed Attachments Forms configuration, see Section B.2.1. For a Managed Attachments OAF configuration, see Section B.3.1.
3. Store the Wallet password in the database vault by executing the following command as APPS schema:

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

   Where WalletPassword is the wallet password.

4. Verify the previous command with this statement:

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

5. Import the AXF certificate into the wallet.


   For information, see "Configuring SSL for Oracle WebCenter Content Applications" in Oracle WebCenter Content Installation Guide.

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

   ■ Section 2.5.1, "Configuring Logging for Forms Applications"
   ■ Section 2.5.2, "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 Section A.4.2; for the Managed Attachments solution, see Section B.2.1.

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

2.5.2 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 screen, select the following settings:
      a. In the Diagnostic field, select Show Log on Screen.
      b. In the Log Level field, select Statement (1).
   3. Click Go.

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 these sections listed below for additional tasks to configure each solution.

#### For the Imaging Solution

Configure the Imaging solution as described in Chapter 5. Configure AXF-related Oracle E-Business Suite tables as described in Section A.4 or apply a solution accelerator as described in Section 5.2.

---

**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 Chapter 6. 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_ATTACHMENT_CONFIG.sql script populates the tables for Forms and OAF pages. For details, see Section 6.2.2, "Enabling Managed Attachments for Oracle E-Business Suite Forms Applications."

   b. For OAF applications, running the OAF_AXF_EBS_ATTACHMENT_CONFIG.sql script populates the tables listed in Section B.4 for the Managed Attachments solution for selected OAF pages, which you can modify for your OAF pages. For details, see Section 6.2.3, "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.

- Section 2.8.1, "Uninstalling From Oracle E-Business Suite Forms"
- Section 2.8.2, "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.
Uninstalling AXF From Oracle E-Business Suite

Oracle E-Business Suite 12:  *MW_HOME/ECM_HOME/axf/adapters/eb12/AXF_DROP_TABLES_SYNONYM.sql*

Oracle E-Business Suite 11:  *MW_HOME/ECM_HOME/axf/adapters/eb11/AXF_DROP_TABLES_SYNONYM.sql*

Execute the script by entering:

```sql
@AXF_DROP_TABLES_SYNONYM.sql
```

3. Remove the AXF database schema user.

4. Remove AXF_CUSTOM.* (AXF_CUSTOM.pll, AXF_CUSTOM.pld, and AXF_CUSTOM.plx) from FORMS_PATH (or FORMS60_PATH on Oracle E-Business Suite 11 systems).

5. Restore the CUSTOM.pll file you backed up in step 7 in Section 2.2.

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.

   ```sql
   MW_HOME/ECM_HOME/axf/adapters/eb1/oaf/OAF_AXF_DROP_TABLES_SYNONYM.sql
   ```

   Execute the script by entering:

   ```sql
   @OAF_AXF_DROP_TABLES_SYNONYM.sql
   ```

3. Remove the AXF database schema user.
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:

- Section 3.1, "Importing the Oracle PeopleSoft Project"
- Section 3.2, "Configuring and Securing Adapter Communications for Oracle PeopleSoft"
- Section 3.3, "Placing AXF Components on Oracle PeopleSoft Pages"
- Section 3.4, "Configuring Oracle PeopleSoft Logging"
- Section 3.5, "Configuring Solutions for Oracle PeopleSoft"
- Section 3.6, "Uninstalling AXF From Oracle PeopleSoft"

Note: If installing adapter solutions for Oracle E-Business Suite but not Oracle PeopleSoft, skip this chapter after completing the steps described in Chapter 2, "Configuring the Oracle E-Business Suite Plug-In."

### 3.1 Importing the Oracle PeopleSoft Project

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

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

Note: Oracle PeopleSoft integration does not require an additional database user, as all necessary tables are created when importing a project.
2. Start the Oracle PeopleSoft Application Designer in two-tier mode and log in as the user with administrative privileges.

3. From the menu, select Tools, then Copy Project, then From File. The Copy From File screen displays.

4. Locate the following directory.

MW_HOME/ECM_HOME/axf/adapters/psft/

5. Select the psft directory, then select the AXF_PS_INTEGRATION directory and click Open.

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

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

7. After all files have copied, select Build, then Project from the menu. The Build screen displays.

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

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

10. If the log file shows tablespace ‘AXF’ does not exist errors, the tablespace was not created properly. Manually create a tablespace called AXF in the same database you logged into when starting the Oracle PeopleSoft Application Designer, then return to step 5 to rebuild the project.

11. Click Save All 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 username token authentication and then grant AXF access for Oracle PeopleSoft users.

This section covers the following topics:

- Section 3.2.1, “Securing Communications Through SSL (Oracle PeopleSoft)”
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 Oracle WebCenter Content Installation Guide.

3. Exchange server certificates between the web servers.
   For information, see "exportKeyStoreObject" in Oracle Application Server Administrator’s Guide.

3.2.2 Configuring Integration Broker to Communicate With AXF

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

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

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

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

- Section 3.2.2.3, "Encrypting the Gateway Password"
- Section 3.2.2.4, "Setting Up the Service Operation Routings"
- Section 3.2.2.5, "Validating Domain Status"

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

3.2.2.1 Configuring Communication With an 11g AXF Server

1. In Oracle PeopleSoft Server, open PeopleTools, then Integration Broker, then Integration Setup. The Integration setup menu expands to show available options.
2. Click Nodes.

3. On the Find an Existing Value tab, select Node Name in the Search By field, enter AXF in the Begins With field, and click Search.

4. From the search results, click the AXF_SOLUTION_MEDIATOR_11G link.

5. On the Node Definitions tab, select the Active Node field. 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.
     \[
     \text{https://AXF\_Server~name~or~IP~address:port\_number/axf-ws/AxfSolutionMediatorService}
     \]
     For example:
     \[
     \text{https://myserver.us.oracle.com:16001/axf-ws/AxfSolutionMediatorService}
     \]
   - If not using SSL, set it to the following URL:
     \[
     \text{http://AXF\_Server~name~or~IP~address:port\_number/axf-ws/AxfSolutionMediatorService}
     \]
     For example:
     \[
     \text{http://myserver.us.oracle.com:16000/axf-ws/AxfSolutionMediatorService}
     \]

9. Click Save.

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

   - If configured properly, the word Success displays in the message text area of the Ping NodeResults page. Proceed to Section 3.2.2.4, "Setting Up the Service Operation Routings" and Section 3.2.2.5, "Validating Domain Status."
   - If Success is not displayed, return to the Node Configuration page to reenter values until you can ping the node successfully.

11. Click the WS Security tab.

12. Select Username Token in the Authentication Token Type field and select the Use External User ID field.

13. Click Save.

### 3.2.2.2 Configuring Communication With a 10g AXF Server

1. In Oracle PeopleSoft Server, open PeopleTools, then Integration Broker, then Integration Setup. The Integration setup menu expands to show the available options.

2. Click Nodes.
3. On the Find an Existing Value tab, select **Node Name** in the Search By field, enter **AXF** in the Node Name field, and click **Search**.

4. From the search results, click the **AXF_SOLUTION_MEDIATOR_10G** link.

5. Click the Connectors tab.

6. In the **Property Name** column, set **Host** to the AXF Server name or IP address.

7. In the **Property Name** column, set **URL** to the following URL:

   \[ \text{http://AXF\_Server \ name \ or \ IP \ address:port\_number/imaging-bai-axf/AxfSolutionMediator} \]

8. Click **Save**.

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

   - If configured properly, the word **Success** displays in the message text area of the Ping NodeResults page. Proceed to **Section 3.2.2.4, "Setting Up the Service Operation Routings"** and **Section 3.2.2.5, "Validating Domain Status."**

   - If **Success** is not displayed, see **Section 3.2.2.3**. Return to the Node Configuration page to reenter values until you can ping the node successfully.

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

### 3.2.2.3 Encrypting the Gateway Password

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

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

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

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

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

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

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

### 3.2.2.4 Setting Up the Service Operation Routings

1. From the Integration Setup options, select **Service Operations**.

2. On the Find Service Operation tab, enter **AXF** in the Service Operation field and click **Search**. A single results listing is returned.

3. Click the **AXF\_EXECUTE** link.

4. Click the Routings tab.

5. Verify status.

   - If communicating with an **11g AXF Server**, verify that the **AXF\_SOLUTION\_MEDIATOR\_ROUTING** routing definition’s status is Active. If it is not, choose its Selected field, click the **Activate Selected Routings** button, and ensure that all other routing definition are set to **Inactive**.
If communicating with a 10g AXF Server, verify that the AXF_SM_ROUTING_10G routing definition’s status is Active. If it is not, choose its Selected field, click the **Activate Selected Routings** button, and ensure that all other routing definition are set to **Inactive**.

6. Click the **Save** button.

### 3.2.2.5 Validating Domain Status

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

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

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

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

### 3.2.3 Configuring AXF Access For Oracle PeopleSoft Users

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

- **Section 3.2.3.1, "Verifying the AXF_ROLE for Oracle PeopleSoft Users"
- **Section 3.2.3.2, "Assigning Users the AXF_ROLE"

#### 3.2.3.1 Verifying the AXF_ROLE for Oracle PeopleSoft Users

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

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

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

**Manually Adding the AXF_ROLE to Oracle PeopleSoft**

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

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

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

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

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

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

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 Screens

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 screen.
3. In the Application Designer, select File/Open and choose Page from the Definition field.
4. In the Name field, enter the page name you noted in step 2 and click Open.
5. Select the Order tab at the top.
6. From the set of fields listed, identify the field that is the most likely unique ID (for example, VOUCHER_ID for Invoice Entry) and note the record name.

   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>
<thead>
<tr>
<th>Screen</th>
<th>Page Name</th>
<th>Record Name</th>
<th>Primary Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Contracts &gt; Create and Amend &gt; General Information</td>
<td>CA_HDR_PNL</td>
<td>CA_CONTR_HDR</td>
<td>BUSINESS_UNIT</td>
</tr>
<tr>
<td>Customer Contracts &gt; Create and Amend &gt; General Information</td>
<td>CA_HDR_PNL</td>
<td>CA_CONTR_HDR</td>
<td>CONTRACT_NUM</td>
</tr>
<tr>
<td>Purchasing &gt; Requisitions &gt; Add/Update Requisitions</td>
<td>REQ_FORM</td>
<td>REQ_HDR</td>
<td>BUSINESS_UNIT</td>
</tr>
<tr>
<td>Purchasing &gt; Requisitions &gt; Add/Update Requisitions</td>
<td>REQ_FORM</td>
<td>REQ_HDR</td>
<td>REQ_ID</td>
</tr>
</tbody>
</table>

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 these user interface 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 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**

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

### 3.4 Configuring 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:

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

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

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

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

- DEBUG
- INFO
- WARN
- ERROR
- FATAL

**Note:** For detailed information about log4j, see the log4j documentation.

### 3.5 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 Chapter 5. Configure AXF-related Oracle PeopleSoft tables as described in Section A.5 or apply a solution accelerator as described in Section 5.2.

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 Section A.5.3.

For the Managed Attachments Solution
1. Configure the Managed Attachments solution as described in Chapter 6.

2. Make entries or changes to the PeopleSoft AXF tables listed in Section B.4. Running the sample script described in Section 6.2.4 populates the tables with sample values that you can modify. You must enter this information:
   a. Enter the primary screen keys you noted in Section 3.3.
   b. Specify an Oracle PeopleSoft role in the PS_AXF_COMMANDS Table to grant users permission to use a specified user interface item. See Section B.4.2.

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.
This chapter describes how to configure AXF logging using Enterprise Manager or Application Server. Most AXF configuration is completed as part of Oracle WebCenter Content installation.

This chapter covers the following topic:

- Section 4.1, "Configuring AXF Logging"

### 4.1 Configuring AXF Logging

You can configure logging using either of these methods:

- Section 4.1.1, "Using Enterprise Manager"
- Section 4.1.2, "Using Application Server"

### 4.1.1 Using Enterprise Manager

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

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

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

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

   An example location follows:

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

   ```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.

   ```xml
   <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.
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.

<table>
<thead>
<tr>
<th>Log Type</th>
<th>Description</th>
<th>Log Level (ODL Message Type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NULL</td>
<td>The logger inherits the log level set for its parent.</td>
<td>n/a</td>
</tr>
<tr>
<td>SEVERE</td>
<td>Log system errors requiring attention from the system administrator.</td>
<td>ERROR:1</td>
</tr>
<tr>
<td>WARNING</td>
<td>Log actions or conditions discovered that should be reviewed and may require action before an error occurs.</td>
<td>WARNING:1</td>
</tr>
<tr>
<td>INFO</td>
<td>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.</td>
<td>NOTIFICATION:1</td>
</tr>
<tr>
<td>CONFIG</td>
<td>Log configuration-related messages or problems.</td>
<td>NOTIFICATION:16</td>
</tr>
<tr>
<td>FINE</td>
<td>Log trace or debug messages used for debugging or performance monitoring. Typically contains detailed event data.</td>
<td>TRACE:1</td>
</tr>
<tr>
<td>FINER</td>
<td>Log fairly detailed trace or debug messages.</td>
<td>TRACE:16</td>
</tr>
<tr>
<td>FINEST</td>
<td>Log highly detailed trace or debug messages.</td>
<td>TRACE:32</td>
</tr>
</tbody>
</table>
Configuring the Imaging Solution

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:

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

Note: You can provide access to the Imaging solution from Oracle E-Business Suite Oracle Application Framework (OAF) applications. For information, see Section 2.3.3, "Configuring Other Services on OAF Pages (Optional)."

Note: To make certain modifications to Imaging solutions, such as changing the profiles displayed to users in the Task List and task actions and metadata displayed to users in the Task Viewer, you can use the Imaging Solution Editor. For information about the Solution Editor, see "Solutions Editor Page" in Oracle WebCenter Content Administrator's Guide for Imaging.

5.1 Configuring the BPEL Connection

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

- Section 5.1.1, "Creating a CSF Credential Alias"
- Section 5.1.2, "Creating a Connection in Imaging Connections"
- Section 5.1.3, "Referencing the Connection in the AXF_SOLUTION_ATTRIBUTES Table"

5.1.1 Creating a CSF Credential Alias

The Credential Store Framework (CSF) enables you to create a user name/password alias for use in an 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 *Oracle Application Server Administrator’s Guide*.

### 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 Section 5.1.1)
   - **Provider**: t3://hostname:BPEL server port

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

### 5.1.3 Referencing the Connection in the AXF_SOLUTION_ATTRIBUTES Table

Follow this step to identify the Imaging connection to the AXF solution, as described in Section 5.1.2. Run the command from SQL Developer (or other suitable tool that can connect to the imaging database schema).

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

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

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

- Configure the AXF tables and AXF-related Oracle E-Business Suite or Oracle PeopleSoft tables. Table descriptions and example implementations are provided in Appendix A, "Imaging Solution Tables."
OR

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

5.3 Testing Functionality Using the AXF Driver Page

Access the driver page of the AXF web application to verify functionality. For more information about the driver page, see "Verifying the AXF Installation with HelloWorld" in Oracle WebCenter Content Installation Guide.

5.4 Configuring Imaging Solution Options

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

- Section 5.4.1, "Configuring Automatic Imaging Viewer Login"
- Section 5.4.2, "Allowing Oracle WebLogic Server/Business Application Users to Perform Tasks"
- Section 5.4.3, "Configuring Clustering for AXF in Imaging Managed Servers"
- Section 5.4.4, "Configuring Autotask Locking"
- Section 5.4.5, "Updating the Task Payload Using XPATH"
- Section 5.4.6, "Targeting a Single Conversation With Multiple Screen Instances Displayed"
- Section 5.4.7, "Adding a Validation"
- Section 5.4.8, "Deploying Custom Commands"
- Section 5.4.9, "Configuring Chained Commands and Web Tools"
- Section 5.4.10, "Configuring or Disabling a Dynamic Data Table"
- Section 5.4.11, "Reenabling Paperclip Attachments (Oracle E-Business Suite and Imaging Only)"
- Section 5.4.12, "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 Section A.1.2.

<table>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF</td>
<td>USERNAME_PASS_THROUGH</td>
<td>TRUE or FALSE</td>
</tr>
</tbody>
</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:** 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 Section 6.2.1) sets this value to TRUE. If no value is provided, the value defaults to TRUE. Also see Section 6.6.17.

**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 Oracle WebCenter Content Installation Guide.

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 Section A.3.2.) To prevent collisions, enable autotask locking for each named BPEL connection in the AXF database. When locking is enabled, only one user may automatically acquire a task at a given time.

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

The setting is configured in the AXF_SOLUTION_ATTRIBUTES Table by inserting the following row:
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 Section A.3.7.

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.

```plsql
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.DOMElem;
    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
    END IF;
END;
```

<table>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPEL.default</td>
<td>USE_AUTOTASK_LOCKING</td>
<td>TRUE</td>
</tr>
</tbody>
</table>
```plaintext
  pmsgstring := '';
  end if;

  RETURN rtnCode;

END;

5.4.6 Targeting a Single Conversation With Multiple Screen 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 screen 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 Section A.3.9.

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

1. Add the following row to the AXF_COMMANDS table:

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>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>COMMAND_CLASS</th>
<th>COMMAND_NAMESPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvoiceProcessing</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>ValidateTransactionID</td>
</tr>
</tbody>
</table>

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).
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>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ValidateTransactionID</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>ATTRIBUTE_TO_VALIDATE</td>
<td>XPATH:InvoiceProcessing_TransactionID</td>
</tr>
<tr>
<td>ValidateTransactionID</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>CMD_ON_PASS</td>
<td>CompleteInvoice</td>
</tr>
<tr>
<td>ValidateTransactionID</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>REGULAR_EXPRESSION</td>
<td>[^0]</td>
</tr>
<tr>
<td>ValidateTransactionID</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>FAIL_MESSAGE</td>
<td>Please save the transaction before completing the task.</td>
</tr>
</tbody>
</table>

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 Web Tools

Some AXF commands have parameter keys that specify what occurs after the command completes, allowing you to chain them. For example, Table 5–5 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>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DuplicateInvoice</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>CMD_AUTOTASK_OFF</td>
<td>StartInvoiceProcessing</td>
</tr>
<tr>
<td>DuplicateInvoice</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>CMD_AUTOTASK_ON</td>
<td>AutoOpenTask</td>
</tr>
<tr>
<td>DuplicateInvoice</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>OUTCOME</td>
<td>DUPLICATE_INVOICE</td>
</tr>
</tbody>
</table>

5.4.10 Configuring or Disabling a Dynamic Data Table

In the Task Viewer, you can display a table of dynamic data from the BPEL payload XML, such as General Ledger lines for an invoice processing solution, as shown in the
bottom tabs in Figure 1–5. You configure the table in the AXF_METADATA_BLOCKS Table and its data lines in the AXF_METADATA_ATTRIBUTES Table. For information on formatting XML data in the BPEL payload, see Section 5.4.10.1; also see Section A.2.3, "Task Viewer Web Tool."

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

<table>
<thead>
<tr>
<th>BLOCK_ID</th>
<th>BLOCK_LOCATION</th>
<th>LABEL</th>
<th>DISPLAY _ORDER</th>
<th>TASK_FLOW_ID</th>
<th>SOLUTION_NAMESPACE</th>
<th>BLOCK_TYPE</th>
<th>METADATA _STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LEFT_SIDEBAR</td>
<td>Summary</td>
<td>1</td>
<td>axf-taskviewer-tfd InvoiceProcessing</td>
<td>METADATA null</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>LEFT_SIDEBAR</td>
<td>Comments</td>
<td>2</td>
<td>axf-taskviewer-tfd InvoiceProcessing</td>
<td>COMMENT null</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>BOTTOM_PANEL</td>
<td>GL Lines</td>
<td>3</td>
<td>axf-taskviewer-tfd InvoiceProcessing</td>
<td>METADATA TABLE</td>
<td></td>
<td></td>
</tr>
</tbody>
</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>
<thead>
<tr>
<th>BLOCK_ID</th>
<th>ATTRIBUTE_ID</th>
<th>LABEL</th>
<th>ATTRIBUTE_KEY</th>
<th>IS_XPATH</th>
<th>DISPLAY _ORDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>8</td>
<td>Line Number</td>
<td>DistributionLines_LineNumber</td>
<td>TRUE</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>Dist Account</td>
<td>DistributionLines_DistributionAccount</td>
<td>TRUE</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>Amount</td>
<td>DistributionLines_Amount</td>
<td>TRUE</td>
<td>2</td>
</tr>
</tbody>
</table>

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>
  </collectionContainerElement>
```

5-8  Oracle WebCenter Administrator's Guide for Application Adapters
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 screen 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:
   ```sql
   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:
   ```sql
   DELETE FROM AXF_METADATA_ATTRIBUTES WHERE BLOCK_ID = BLOCK_ID;
   ```

4. Run the following command to delete lines from the AXF_METADATA_BLOCKS table:
   ```sql
   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 Section A.4.2.2, "Example Implementation."
   
   For example, rename the entry as follows:
   ```
   AXF_MANAGED_ATTACHMENTS-DISABLED
   ```
3. Verify that the AXF_PAPERCLIP property in the AXF_PROPERTIES table is set to TRUE. For more information, see Section A.4.5.

<table>
<thead>
<tr>
<th>PROPNAME</th>
<th>PROPVALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_PAPERCLIP</td>
<td>Set to TRUE to enable the paperclip option, or FALSE to disable it. (Value must be in uppercase characters.)</td>
</tr>
</tbody>
</table>

### 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 Section A.5.5.
- 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.
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 Distributed Document Capture, and configure authentication and security.

For background information on the Managed Attachments solution, see Section 1.3. This chapter covers the following topics:

- Section 6.1, "System Requirements for the Managed Attachments Solution"
- Section 6.2, "Running Configuration Scripts to Enable Managed Attachments"
- Section 6.3, "Configuring the Content Server Components"
- Section 6.4, "Configuring the Enterprise Application Adapter Framework"
- Section 6.5, "Configuring Managed Attachments Settings"
- Section 6.6, "Customizing the Managed Attachments Solution"
- Section 6.7, "Configuring Authentication and Security"
- Section 6.8, "Configuring Oracle AutoVue Document Viewing"
- Section 6.9, "Configuring Oracle Distributed Document Capture"
- Section 6.10, "Configuring Content Server Logging"
- Section 6.11, "Uninstalling Adapter Components on Content Server"

6.1 System Requirements for the Managed Attachments Solution

In addition to all other requirements listed in Section 1.6, 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:


Oracle WebCenter Content: Imaging 11g Release 1 (11.1.1 or higher)
Installation of Imaging 11g is required, even if configuring the Managed Attachments solution only. This is because AXF is part of the Imaging deployment.
Running Configuration Scripts to Enable Managed Attachments

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.

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.

- Section 6.2.1, "Configuring AXF Elements for Managed Attachments"
- Section 6.2.2, "Enabling Managed Attachments for Oracle E-Business Suite Forms Applications"
- Section 6.2.3, "Enabling Managed Attachments for Oracle E-Business Suite OAF Applications"
- Section 6.2.4, "Enabling Managed Attachments for Oracle PeopleSoft"

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

<table>
<thead>
<tr>
<th>SQL Script</th>
<th>Applies To</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_ATTACHMENTS_CONFIG.sql</td>
<td>Oracle E-Business Suite Forms, Oracle E-Business Suite OAF, Oracle PeopleSoft, Enterprise Application Adapter Framework (see Section 6.4)</td>
<td>AXF script that configures AXF elements such as solutions and commands. See Section 6.2.1. Run this script on the Oracle WebCenter Content middle tier as the user who owns the Imaging schema.</td>
</tr>
<tr>
<td>AXF_EBS_ATTACHMENTS_CONFIG.sql</td>
<td>Oracle E-Business Suite Forms only</td>
<td>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 Section 6.2.2. Run this script as the Oracle E-Business Suite plug-in schema user (AXF).</td>
</tr>
</tbody>
</table>
6.2.1 Configuring 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 [ContentServerProfile] 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 Section 6.1.4.
      - Profile values include: EBSProfile (default), PSFTProfile, and UniversalProfile (for the Enterprise Application Adapter Framework). For details about customizing profiles, see Section 6.6.3.
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 Section 6.6.11.

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

To execute the script, enter:

@AXF_ATTACHMENTS_CONFIG.sql

---

**Note:** For information about creating schemas before or after Oracle WebCenter Content installation, see "Creating Oracle WebCenter Content Schemas with the Repository Creation Utility" in *Oracle WebCenter Content Installation Guide*.

---

### 6.2.2 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.

   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 Section B.2.3. The script inserts multiple rows, allowing you to keep the rows that apply to your particular configuration.

### 6.2.3 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 Section B.3. 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 Section 6.2.3.1.

- Modify the sample key values for your OAF pages, using values you identify in Section 6.2.3.2.
6.2.3.1 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 Section B.3.1.2, "Example Implementation."

- The following key values are used in the OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF). See the example table in Section B.3.4.2, "Example Implementation."
  - 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

<table>
<thead>
<tr>
<th>OAF Page</th>
<th>Navigation</th>
<th>Sample Key Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>iProcurement</td>
<td>Choose iProcurement, then the Requisitions tab, then click Requisition Description</td>
<td>OAF Page = /oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Entity = REQ_HEADERS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Primary Key = REQUISITION_HEADER_ID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ View Object = ReqHeadersVO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ View Attribute = RequisitionHeaderId</td>
</tr>
<tr>
<td>iProcurement Purchase Orders</td>
<td>Choose iProcurement, then the Requisitions tab, then click Order Number</td>
<td>OAF Page = /oracle/apps/pos/changeorder/webui/PosViewPOPG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Entity = PO_HEADERS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Primary Key = PO_HEADER_ID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ View Object = PosViewHeadersVO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ View Attribute = PO_HEADER_ID</td>
</tr>
<tr>
<td>Purchase Orders</td>
<td>Choose Purchasing, then Buyer Work Center, then Orders, then click the Order number</td>
<td>OAF Page = /oracle/apps/po/document/order/webui/OrderPG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Entity = PO_HEADERS_MERGE_V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Primary Key = PO_HEADER_ID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ View Object = PoHeaderMergeVO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ View Attribute = PoHeaderId</td>
</tr>
<tr>
<td>Suppliers</td>
<td>Choose Purchasing, then Supply Base, then Suppliers, Search by clicking Go, then click the Update icon</td>
<td>OAF Page = /oracle/apps/pos/supplier/webui/QuickUpdatePG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Entity = PO_VENDORS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Primary Key = VENDOR_ID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ View Object = SupplierVO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ View Attribute = VendorId</td>
</tr>
</tbody>
</table>
Running Configuration Scripts to Enable Managed Attachments

Follow these steps to run the script.

1. 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

### 6.2.3.2 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:

- **Section 6.2.3.2.1, “With Both Attachment Information and Primary Keys Present”**
- **Section 6.2.3.2.2, “With Attachment Information Present, But Not Primary Keys”**
- **Section 6.2.3.2.3, "With Neither Attachment Information Nor Primary Keys Present”**

#### 6.2.3.2.1 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:entityMap>
  </oa:entityMappings>
</oa:attachmentImage>

4. Note the identifying values. You use them in Section 6.2.3 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

6.2.3.2.2 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.

```sql
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:

```xml
<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.

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

   The query returns the primary key column name: **REQUISITION_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 Section 6.2.3 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**

6.2.3.2.3 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](image)

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 PoHeaderMergeVO 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:


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


   c. From the search results, display the view or table details. The example shown in Figure 6–2 provides 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`).
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 Section 6.2.3 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 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 Section B.4. 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 Section 3.3.
- 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_ATTACHMENT_CONFIG.sql sample script in this folder:
   `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 Section 3.3, then run the script.  
   To execute the script, enter:  
   `@AXF_PSFT_ATTACHMENT_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 Section B.4.2.2.

### 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 Section 6.4, “Configuring the Enterprise Application Adapter Framework.”

---

- Section 6.3.1, "Enabling Content Server Components"  
- Section 6.3.2, "Verifying Required Content Server Components and Configuration"  
- Section 6.3.3, "Testing the Managed Attachments Solution"

#### 6.3.1 Enabling Content Server Components

Table 6–3 lists Content Server components for the Managed Attachments solution.

<table>
<thead>
<tr>
<th>Content Server Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AppAdapterCore.zip</td>
<td>Required for all Managed Attachments configurations</td>
</tr>
<tr>
<td>AppAdapterEBS.zip</td>
<td>Required for Oracle E-Business Suite Forms and OAF integrations</td>
</tr>
<tr>
<td>AppAdapterPSFT.zip</td>
<td>Required for Oracle PeopleSoft integrations</td>
</tr>
<tr>
<td>AppAdapterUniversal.zip</td>
<td>Required for other business application integrations, as described in Section 6.4, &quot;Configuring the Enterprise Application Adapter Framework.&quot;</td>
</tr>
</tbody>
</table>

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 Section 6.3.1.1.
2. Log in to Content Server as an administrator.
3. Select **Admin Server** from the Administration menu.
   The Component Manager page displays.

4. Choose **Integration**.
   The Content Server components described in Table 6–3 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 Section 6.4, "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 Section 6.3.1.

1. Back up Content Server rule and profile customizations.

   Installing the new adapter overwrites existing rules and profiles. If your previous installation includes customizations to Content Server rules and profiles, back up these rules and profiles using a CMU bundle before installing 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 11g 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, select the Administration option from the main menu, choose Admin Applets, then User Admin. Select Security, then Permissions by Role.

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

6.3.3 Testing the Managed Attachments Solution

Test the configuration for your selected business application by following the steps listed in the Oracle WebCenter User’s Guide for Application Adapters.

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 Section 6.2.1, "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.

- Section 6.4.1, "Deploying the AppAdapterUniversal Component on Content Server"
- Section 6.4.2, "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 Section 6.3.1, "Enabling Content Server Components" or "Using the Component Wizard" in Oracle WebCenter Content System Administrator’s Guide for Content Server.
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).

   
   The zip file is located at:
   
   `ECM_HOME/ucm/Distribution/AppAdapter`

2. Unzip the AppAdapterUniversal.zip file.

3. Replace the word `Universal` in the filename 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 Section 6.6.11.

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 Section 6.6.11, "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 Section 6.6.3, "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 6–4.

   - Example 6–1 provides a sample SOAP XML file for calling AXF and Table 6–5 describes fields in the AXFRequest.
   
   - Example 6–2 provides a sample AXFResponse and Table 6–6 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. The WSDL URL is:

### Example 6–1 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>welcome</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 use -->
        <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...businessObjectKey5</key>
            <value>REQUISITION_HEADER_ID</value>
          </entry>
          <entry>
            <key>businessObjectValue1...businessObjectValue5</key>
            <value>1234</value>
          </entry>
          <entry>
            <key>labelValue1...labelValue5</key>
            <value>Business Unit US001 Requisition ID 1234</value>
          </entry>
          <entry>
            <key>extraParamName (optional; for example, extraxReqNum)</key>
            <value>1234</value>
          </entry>
        </requestParameters>
      </request>
    </ser:execute>
  </soapenv:Body>
</soapenv:Envelope>
```

### Table 6–4 Attributes to Pass Via SOAP Call to AXF

<table>
<thead>
<tr>
<th>Managed Attachments Attribute Key</th>
<th>Description</th>
<th>Example Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>application (required)</td>
<td>Specifies the business application instance name, providing a unique identifier to differentiate between instances.</td>
<td>BIZAPP_instanceA</td>
</tr>
<tr>
<td>businessObjectType (required)</td>
<td>Specifies the business application’s object type, typically the name of the record where the business object data is stored.</td>
<td>REQ_HEADERS</td>
</tr>
<tr>
<td>businessObjectKey1...businessObjectKey5 (one pair required)</td>
<td>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.</td>
<td>REQUISITION_HEADER_ID</td>
</tr>
<tr>
<td>businessObjectValue1...businessObjectValue5 (one pair required)</td>
<td>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.</td>
<td>1234</td>
</tr>
<tr>
<td>labelValue1...labelValue5 (optional)</td>
<td>Specifies labels to be displayed in the Managed Attachments screen’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.</td>
<td>Business Unit US001 Requisition ID 1234</td>
</tr>
<tr>
<td>extraParamName (optional; for example, extraxReqNum)</td>
<td>Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. (For details, see Section 6.6.14.1, &quot;Passing Values Via Enterprise Application Adapter Framework.&quot;)</td>
<td>1234</td>
</tr>
</tbody>
</table>
<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 6–5  AXFRequest Attributes

<table>
<thead>
<tr>
<th>AXFRequest Attributes</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>solutionNamespace</td>
<td>SolutionNamespace in which to execute the command.</td>
<td>UCM_Managed_Attachments</td>
</tr>
<tr>
<td>commandNamespace</td>
<td>Command to execute within the specified SolutionNamespace.</td>
<td>UCM_Managed_Attachments</td>
</tr>
<tr>
<td>conversationID</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>systemName</td>
<td>Reserved for future use.</td>
<td></td>
</tr>
<tr>
<td>role</td>
<td>Reserved for future use.</td>
<td></td>
</tr>
<tr>
<td>userContext</td>
<td>Reserved for future use.</td>
<td></td>
</tr>
<tr>
<td>userName</td>
<td>Business application username.</td>
<td>jcooper</td>
</tr>
<tr>
<td></td>
<td>(Note that for the Managed Attachments solution, the USERNAME_PASS_THROUGH parameter must be set to TRUE. For more information about USERNAME_PASS_THROUGH, see Section 6.6.17.)</td>
<td></td>
</tr>
</tbody>
</table>
| requestParameters      | A collection of key/value pairs providing the command parameters.            | <entry>
|                         | <key>application</key>                                                       | <value>BIZAPP_instanceA</value>|
|                         | </value>                                                                     | </entry>
Example 6–2  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>
                 </responseCommands>
                 <value>http://imaging.us.oracle.com:16200/cs/idcplg/-UniversalProfile?
IdcService=GET_SEARCH_RESULTS_FORCELOGIN&ResultTemplate=Universal_LIST&afGuid=00000132-b540-810e-63f4-00e94577f990</value>
             </response>
         </ns2:executeResponse>
       </S:Body>
   </S:Envelope>

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 Section 6.4.2.1.

### 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 *Oracle WebCenter Content Installation Guide*.

3. Exchange server certificates between the web servers.
   
   For information, see "exportKeyStoreObject" in *Oracle Application Server Administrator’s Guide*.

### 6.5 Configuring Managed Attachments Settings

After configuring the Content Server components as described in Section 6.3, use the Managed Attachments administration interface to configure its settings. This section provides general configuration information, and Section 6.6 provides detailed customization instruction and examples.
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 Section 6.5.2.

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

The Configure Managed Attachments screen displays, as shown in Figure 6–4.
Figure 6–4  Configure Managed Attachments Screen

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 Section 6.5.1, "Working With Global Configuration Variables" and Section 6.6, "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 Section 6.6.8, "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 Section 6.6.1, "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.

### 6.5.1 Working With Global Configuration Variables

Use the **Global Configuration** section of the Configure Managed Attachments screen to change global environment variables from their default values.

Global configuration variables are grouped on the screen as follows:

- Check-In variables (Table 6–7)
- Scanning variables (Table 6–8)
- Button variables (Table 6–9)
- General variables (Table 6–10)

#### Table 6–7 Checkin Variables

<table>
<thead>
<tr>
<th>Field</th>
<th>Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AppAdapterCheckinPrivate</td>
<td>true</td>
<td>If set to true, the Share Document field on the Content Check-In and Scan Document screens is deselected by default. This setting configures documents for private check-in, although users can select the field for shared check-in. See Section 6.7.3, &quot;Configuring Document Security.&quot;</td>
</tr>
<tr>
<td>AppAdapterExtraCheckinMetadata</td>
<td>null</td>
<td>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 Section 6.6.14, &quot;Passing Extra Metadata Values From a Business Application to Content Server.&quot;</td>
</tr>
</tbody>
</table>
### Table 6–8 Scanning Variables

<table>
<thead>
<tr>
<th>Field</th>
<th>Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AppAdapterExtraScanMetadata</td>
<td>null</td>
<td>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 Section 6.6.14, “Passing Extra Metadata Values From a Business Application to Content Server.”</td>
</tr>
<tr>
<td>ODDCURLPath</td>
<td></td>
<td>Enables document attachment scanning and importing through Oracle Distributed Document Capture. For configuration instructions, see Section 6.9. This entry specifies the web address to Oracle Distributed Document Capture. <strong>Format:</strong> ODDCURLPath=http://ODDC_host/ODDC_webcapture_address <strong>Example:</strong> ODDCURLPath=<a href="http://xyz/webcapture.asp">http://xyz/webcapture.asp</a></td>
</tr>
<tr>
<td>ODDCScanAction</td>
<td>1</td>
<td>Use to configure document attachment scanning and importing through Oracle Distributed Document Capture, as described in Section 6.9. In this entry, specify the scan action to perform, where: ■ 1 = Scan ■ 2 = Import</td>
</tr>
</tbody>
</table>

### Table 6–9 Button Variables

<table>
<thead>
<tr>
<th>Field</th>
<th>Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AppAdapterDetachBtnVisible</td>
<td>true</td>
<td>Specifies if the <strong>Detach</strong> button displays in the Managed Attachments screen.</td>
</tr>
<tr>
<td>AppAdapterRefreshBtnVisible</td>
<td>true</td>
<td>Specifies if the <strong>Refresh</strong> button displays in the Managed Attachments screen.</td>
</tr>
<tr>
<td>AppAdapterCheckinNewBtnVisible</td>
<td>true</td>
<td>Specifies if the <strong>New</strong> button displays in the Managed Attachments screen.</td>
</tr>
<tr>
<td>AppAdapterRepoAttachBtnVisible</td>
<td>true</td>
<td>Specifies if the <strong>From Repository</strong> button displays in the Managed Attachments screen.</td>
</tr>
<tr>
<td>AppAdapterConfigureBtnVisible</td>
<td>true</td>
<td>Specifies if the <strong>Configure</strong> button displays in the Managed Attachments screen.</td>
</tr>
<tr>
<td>AppAdapterSearchWithinBtnVisible</td>
<td>true</td>
<td>Specifies if the <strong>Search Within</strong> button that enables users to search within the attachments list displays in the Managed Attachments screen.</td>
</tr>
<tr>
<td>AppAdapterScanBtnVisible</td>
<td>false</td>
<td>Specifies if the <strong>Scan</strong> button displays in the Managed Attachments screen.</td>
</tr>
<tr>
<td>AppAdapterHelpIconVisible</td>
<td>true</td>
<td>Specifies if the <strong>Help</strong> icon displays in the Managed Attachments screen.</td>
</tr>
<tr>
<td>AppAdapterAutoVueIconVisible</td>
<td>false</td>
<td>Specifies if the <strong>AutoVue</strong> icon displays in the Actions column of the Managed Attachments screen. For more information, see Section 6.8.</td>
</tr>
</tbody>
</table>
Configuring Managed Attachments Settings

### Table 6–10  General Variables

<table>
<thead>
<tr>
<th>Field</th>
<th>Default Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AppAdapterGrantPrivilege</td>
<td>W</td>
<td>Specifies the access level to grant to all users if the AF_GRANT_ACCESS service's dPrivilege parameter is not specified. Valid values include: R (read), W (write), D (delete) and A (admin). For more information, see Section B.5.1, &quot;AFGrants Table.&quot;</td>
</tr>
<tr>
<td>AppAdapterGrantHours</td>
<td>0.5</td>
<td>Specifies the time in hours for which the user session remains available. The solution uses this value only if the AF_GRANT_ACCESS service's numHours parameter is not specified. Valid values are numbers with optional decimal. For more information, see Section B.5.1, &quot;AFGrants Table.&quot;</td>
</tr>
<tr>
<td>AppAdapterMaxGrantHours</td>
<td>24</td>
<td>Specifies the maximum time in hours to grant the user access to the Managed Attachments screen. Valid values are numbers with decimal. For example, suppose AppAdapterGrantHours is set to 1 hour and AppAdapterMaxGrantHours is set to 24 hours. If the user accesses the Managed Attachments screen from the business application at 12:00 (noon), dExpirationDate in the AFGrants Table is set to 13:00 and dMaxExpiration is set to 12:00 (noon) the next day. If at 12:30, the user performs an action (such as checking in a document), dExpirationDate changes to 13:30, and so on. The result is that the user can have access to the Managed Attachments screen up to 24 hours if at any given time the gap between two requests is less than one hour. Regardless, when 24 hours is reached, access is denied. This setting prevents a user from keeping access open for very long periods of time without user action, and prevents access from expiring if a user is actively using the system.</td>
</tr>
<tr>
<td>AppAdapterKeyDelimiter</td>
<td></td>
<td>Specifies the internal delimiter used to concatenate primary keys and values passed as parameters. For more information, see Section B.5.1, &quot;AFGrants Table.&quot; The default delimiter is a</td>
</tr>
<tr>
<td>AutoVueURLPath</td>
<td></td>
<td>Enables AutoVue viewing of attached documents through Oracle AutoVue Web Version. For configuration instructions, see Section 6.8. This entry specifies the AutoVue servlet to run. Format: AutoVueURLPath=http://ucm_host name:port/web_root/jsp/autovue/csiApplet.jsp Example: AutoVueURLPath=<a href="http://ucm1.mycompany.com/idc/jsp/autovue/csiApplet.jsp">http://ucm1.mycompany.com/idc/jsp/autovue/csiApplet.jsp</a></td>
</tr>
<tr>
<td>AppAdapterFrameLessWindowRequired</td>
<td>true</td>
<td>Specifies if standard browser menu options are hidden in browser windows that open from the attachments display (true) or displayed (false).</td>
</tr>
<tr>
<td>AppAdapterViewUnreleased</td>
<td>false</td>
<td>If set to true, displays documents in the attachments list before they are released, without links to the web files.</td>
</tr>
<tr>
<td>ResultCount</td>
<td>20</td>
<td>Specifies the number of attachments to display per page in the Managed Attachments screen. If the number of results exceeds ResultCount, previous and next page controls display on the screen.</td>
</tr>
<tr>
<td>SearchEngineName</td>
<td>DATABASE, METADATA, AFLIST</td>
<td>Specifies the search engine to use. DATABASE.METADATA.AFLIST is used for all Managed Attachments searches. 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.</td>
</tr>
</tbody>
</table>

### 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 Section 6.5, "Configuring Managed Attachments Settings." Alternatively, you can follow the steps in this section to directly modify the preferences.hda file.

Notes: You must restart the Content Server after modifying the preferences.hda file.

You can add or delete application and business entity configuration entries as needed, but do NOT delete global configuration entries from the preferences.hda file.

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 Table 6–11.

### Table 6–11 ResultSet Sections in Preferences.hda File

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFEnvironmentConfiguration</td>
<td>Use to configure Content Server environment variables for the adapter. For more information, see Table 6–7 and Section 6.6, &quot;Customizing the Managed Attachments Solution.&quot;</td>
</tr>
<tr>
<td>AFRelationshipAttributes</td>
<td>Use to configure custom relationships between attached documents and business entities. For more information, see Section 6.6.8, &quot;Configuring Attachment Relationship Attributes.&quot;</td>
</tr>
<tr>
<td>AFRevisionSpecificEntities</td>
<td>Use to enable users to access the document version that was attached, even if the document was later updated. For more information, see Section 6.6.9, &quot;Configuring Revision-Specific Mode.&quot;</td>
</tr>
</tbody>
</table>

2. Scroll to the AFEnvironmentConfiguration ResultSet section, and edit the entries described in Section 6.5.1, "Working With Global Configuration Variables" as needed. For more information about customizing the Managed Attachments solution using these variables, see Section 6.6.

### 6.6 Customizing the Managed Attachments Solution

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

- Section 6.6.1, "Customizing Settings at Business Entity or Application Levels"
- Section 6.6.2, "Customizing the Document Type Used For New Attachments"
- Section 6.6.3, "Customizing the Content Server Profile Used"
- Section 6.6.4, "Hiding or Displaying Managed Attachments Screen Buttons"
- Section 6.6.5, "Customizing Scanning"
- Section 6.6.6, "Customizing Managed Attachments Screen Images"
- Section 6.6.7, "Customizing the Screen Style Sheet (CSS) Used"
- Section 6.6.8, "Configuring Attachment Relationship Attributes"
6.6.1 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 Section 6.5.) 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 screen 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 screen and click Add.

3. In the Add Entity Specific Configuration screen shown in Figure 6–5, 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.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Name</td>
<td>Identifies the business application</td>
<td>EBS_Instance</td>
</tr>
<tr>
<td>Object Name</td>
<td>Identifies the business entity</td>
<td>ExpenseClaims</td>
</tr>
<tr>
<td>Configuration Name</td>
<td>Global configuration variable to set for business entity</td>
<td>AppAdapterRepoAttach ButtonVisible</td>
</tr>
<tr>
<td>Configuration Value</td>
<td>Variable value to set for business entity</td>
<td>true</td>
</tr>
</tbody>
</table>
6.6.2 Customizing the Document Type Used For New Attachments

A Content Server document type is selected by default when users click the **New** button to attach and check in a document. Using preferences.hda settings, you can specify a different default document type. In addition, you can specify document types on a global, application, or business entity level. For example, you might want to check in all new documents for an expenses business entity using a custom document type geared toward expense attachments.

Follow these steps.

1. On Content Server, create or modify a document type.
   
   For more information about document types, see the Content Server documentation.

2. In the preferences.hda file, add a new row in the AFEnvironmentConfiguration resultset. For general information, see Section 6.5.2.

3. Insert an entry that identifies the document type to use as the default type for a specified business entity, where:
   
   - name: afDocType
   - value: document type key
   - dAFApplication: Application to which to assign this document type
   - dAFBusinessObjectType: Business entity within application to which to assign document type

   **Example 6–3** sets the document type **ExpenseClaimsType** as the default type when users attach documents to the ExpenseClaims business entity (within the PSFT_Instance application).

**Example 6–3 Custom Default Document Type For Expenses Business Entity**

```plaintext
afDocType
ExpenseClaimsType
PSFT_Instance
```
4. Restart the Content Server.

6.6.3 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

You set the profile when running the AXF_ATTACHMENTS_CONFIG.sql script in Section 6.2.1. 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.

---

**Note:** If you use custom profiles, generic error messages display by default instead of application-specific error messages. To display custom error messages, override the resource include - af_custom_error_msg_display. In the overridden resource include, set the error message to `afErrorMsg`.

---

6.6.3.1 Changing the Profile Globally

Follow these steps to change the global profile used.

1. From the Content Server Configuration Manager, copy the default profile provided (EBSProfile, 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 Section B.1.4.

6.6.3.2 Specifying a Profile For a Specific Business Entity or Application

Follow these steps to modify the profile for a specific business entity or application.

1. From the Content Server Configuration Manager, copy the default profile provided (EBSProfile, 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 Section 6.5.2.

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
Customizing the Managed Attachments Solution

- dAFBusinessObjectType: Business entity within application to which to assign the profile

   Example 6-4 sets a profile called OrderPayableProfile to use when users attach or scan documents in the OrderPayables business entity within the EBS_Instance application.

   Example 6-4  Custom Content Server Profile For Expenses Business Entity

   dpTriggerValue
   OrderPayableProfile
   EBS_Instance
   OrderPayables

5. Restart the Content Server.

6.6.4 Hiding or Displaying Managed Attachments Screen Buttons

You can choose to enable (display) or disable (hide) the buttons listed in Table 6-12 to users on the Managed Attachments screen, by changing their variable setting to true or false, respectively. For details about Managed Attachments variables, see Section 6.5.1.

Table 6–12  Variables For Displaying or Hiding Managed Attachments Buttons

<table>
<thead>
<tr>
<th>Button Variables</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AppAdapterRepoAttachBtnVisible</td>
<td>Displays or hides the From Repository button</td>
</tr>
<tr>
<td>AppAdapterRefreshBtnVisible</td>
<td>Displays or hides the Refresh button</td>
</tr>
<tr>
<td>AppAdapterConfigureBtnVisible</td>
<td>Displays or hides the Configure button</td>
</tr>
<tr>
<td>AppAdapterDetachBtnVisible</td>
<td>Displays or hides the Detach button</td>
</tr>
<tr>
<td>AppAdapterCheckinNewBtnVisible</td>
<td>Displays or hides the New button</td>
</tr>
<tr>
<td>AppAdapterScanBtnVisible</td>
<td>Displays or hides the Scan button</td>
</tr>
<tr>
<td>AppAdapterAutoVueIconVisible</td>
<td>Displays or hides the AutoVue button in the Actions column</td>
</tr>
<tr>
<td>AppAdapterSearchWithinBtnVisible</td>
<td>Displays or hides the Search Within button</td>
</tr>
<tr>
<td>AppAdapterHelpIconVisible</td>
<td>Displays or hides the Help icon</td>
</tr>
</tbody>
</table>

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 Section 6.6.1.

6.6.5 Customizing Scanning

This section describes methods of customizing scanning functionality using Oracle Distributed Document Capture. To customize scanning, you must also configure standard scanning options, as described in Section 6.9. It includes the following topics:

- Section 6.6.5.1, "Enabling or Disabling Scanning"
Customizing the Managed Attachments Solution

- Section 6.6.5.2, "Configuring an Alternate Scan Profile For a Business Entity"
- Section 6.6.5.3, "Modifying the Document Classification Used"

6.6.5.1 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

6.6.5.2 Configuring an Alternate Scan Profile For a Business Entity
The adapter provides these default business application scan profiles. 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.
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.

   Example 6–5 shows a scan profile called MyPIMScanProfile enabled for the PIM business entity only.

Example 6–5  Enabling Another Scan Profile for a Business Entity

afScanProfile
MyPIMScanProfile
PSFT_Instance
PIM
6.6.5.3 Modifying the Document Classification Used

The adapter provides the default business application document classifications for scanning listed in Table 6-13. Each classification includes a set of Content Server application fields, a table, and a view.

<table>
<thead>
<tr>
<th>Business Application</th>
<th>Content Server Fields</th>
<th>Table</th>
<th>View</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle E-Business Suite</td>
<td>EBSAppScanProfiles</td>
<td>EBSDocClass</td>
<td>EBSDocClassView</td>
</tr>
<tr>
<td>Oracle PeopleSoft</td>
<td>PSFTAppScanProfiles</td>
<td>PSFTDocClass</td>
<td>PSFTDocClassView</td>
</tr>
<tr>
<td>Enterprise Application Adapter Framework</td>
<td>UniversalAppScanProfiles</td>
<td>UniversalDocClass</td>
<td>UniversalDocClassView</td>
</tr>
</tbody>
</table>

To modify the classification, perform the following steps.

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 Section 6.9.4.

6.6.6 Customizing Managed Attachments Screen 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.

6.6.7 Customizing the Screen Style Sheet (CSS) Used

The adapter provides a standard style sheet for the Managed Attachments screen. You can change it by overriding resource includes. For sample implementations, see `AppAdapter_CSS_resource.htm` for Oracle E-Business Suite or `ps_AppAdapter_CSS_resource.htm` for Oracle PeopleSoft.

**Note:** Customizing style sheets for Managed Attachments requires advanced knowledge of Content Server configuration and customization. Be sure to back up the appropriate files before making modifications.

6.6.8 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 Section 6.5.2.
- At run-time, attachment relationship attribute values are stored in the AFRelationshipAttributes table; see Section B.5.3.

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.
4. Edit the AFRelationshipAttributes rule. Add the application fields you added in step 2 to this rule.
5. On Content Server, select **Managed Attachments** from the **Administration** menu.
6. In the Configure Managed Attachments screen, scroll to the **Attachment Relationship Attributes** settings in the lower portion of the screen, and click **Add**. The Add Attachment Relationship Attribute screen displays.

![Figure 6–6  Add Attachment Relationship Attribute Screen](image)

7. Complete fields for the attribute and click **Update**. The example in Figure 6–6 shows a relationship attribute (Print) configured for an WO1 business object for an Oracle PeopleSoft application.
6.6.9 Configuring Revision-Specific Mode

By default, each attachment in the Managed Attachments screen provides access to the most recent revision of the document. In certain cases, however, you may want to configure one or more business entities to provide access to the revision that was attached, even if the document was later updated on Content Server. In this mode, users can see that a more recent revision exists, and if needed, view it and make it the attached revision.

Follow these steps to configure a business entity to display the attached revision instead of the most recent revision.

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

2. On the Configure Managed Attachments screen, scroll to the Entity Specific Configuration settings in the lower portion of the screen, and click Add. The Add Entity Specific Configuration screen displays.

3. Complete fields for revision specific mode, choosing AFRevisionSpecificEntities for the Configuration Name field, and click Update. The example in Figure 6–7 shows revision specific mode configured for a CallRecords business object for an Oracle E-Business Suite application.

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Name</td>
<td>Business application for which the relationship attribute is configured.</td>
<td>PSFT_Instance</td>
</tr>
<tr>
<td>Object Type</td>
<td>Business object for which to enable the relationship attribute</td>
<td>WOI</td>
</tr>
<tr>
<td>Attribute Name</td>
<td>Relationship attribute</td>
<td>Print</td>
</tr>
<tr>
<td>Attribute Type</td>
<td>Attribute’s type. Available types include: Text, Long Text, Date, Memo, Integer, and TrueFalse.</td>
<td>TrueFalse</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application Name</th>
<th>Business application for which the relationship attribute is configured.</th>
<th>EBS_Instance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object Type</td>
<td>Business object for which to enable the relationship attribute.</td>
<td>CallRecords</td>
</tr>
</tbody>
</table>
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 Section 6.5.2.)

   Each row in the resultset represents one business entity for which to enable revision specific attachments, where:

   - $dAFApplication$ refers to the business application for which to enable the revision feature.
   - $dAFBusinessObjectType$ refers to the business object for which to enable the revision feature.

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

```
Example 6–6  AFRevisionSpecificEntities Customization

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

### 6.6.10 Changing the Result Count

The Managed Attachments screen displays a specific number of attachment results per page (referred to as ResultCount). If the number of results exceeds ResultCount, previous and next page controls display on the screen. You can change it to another number (such as 20) by specifying a new ResultCount value in Managed Attachments configuration. See Section 6.5.1, "Working With Global Configuration Variables."

### 6.6.11 Changing the Result Template

The Managed Attachments screen uses a result template to determine its display. The Content Server result template specifies the Managed Attachments user interface. The adapter provides 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 Section 6.4.1.2, “Optionally Customizing the Framework Layout, Images, and Profile.”

---

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration Name</td>
<td>To configure revision specific mode, choose AFRevisionSpecificEntities.</td>
<td>Print</td>
</tr>
<tr>
<td>Field Type</td>
<td>To configure revision specific mode, choose true.</td>
<td>true</td>
</tr>
</tbody>
</table>
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:
     \( UCM_HOME/\text{custom/AppAdapterEBS/adapter\_list\_results\_template.htm} \)
   - The Oracle PeopleSoft template is located at:
     \( UCM_HOME/\text{custom/AppAdapterPSFT/ps\_adapter\_list\_results\_template.htm} \)
   - The Enterprise Application Adapter Framework template is located at:
     \( UCM_HOME/\text{custom/AppAdapterUniversal/universal\_adapter\_list\_results\_template.htm} \)

2. In the preferences.hda file, add an entry in the AFEnvironmentConfiguration section as follows:
   ```
   ResultTemplate
   Template Reference
   Application Name
   Business Entity
   ```

   In Example 6–7, all requests to Managed Attachments for the WorkOrder business entity would use the `EBS\_WORK\_ORDER\_LIST` custom result template instead of the default Oracle E-Business Suite template.

   **Example 6–7  Preferences.hda Entry For Specifying a Custom Result Template**
   ```
   ResultTemplate
   EBS\_WORK\_ORDER\_LIST
   EBS\_Instance
   WorkOrder
   ```

### 6.6.12 Setting Default Columns

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

The column defaults are title, type, author, date, and revision as follows:
```
dDocTitle,dDocType,dDocAuthor,dInDate,dRevision
```

To set alternate default columns for an application or business entity, follow these steps.

1. In the preferences.hda file, add an entry in the AFEnvironmentConfiguration section.

2. Set the value of the `AppAdapterDefaultDisplayColumns` configuration variable as a comma-delimited list containing Content Server metadata field names.
In Example 6–8, the first entry sets document title, type, author, and date as the default columns for the EBS_Instance application. The second entry overrides this setting for the CallRecords business entity by adding the revision column (dRevision) as a default column.

**Example 6–8  Preferences.hda Entries For Specifying Default Columns**

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

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

### 6.6.13 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 6–14 AXF_PROPERTIES Values For PaperClip Use**

<table>
<thead>
<tr>
<th>PROPNAME</th>
<th>PROPVALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_PAPERCLIP</td>
<td>Set to TRUE to enable the paperclip option, or FALSE (default) to disable it. (The value must be in uppercase characters.)</td>
</tr>
</tbody>
</table>

   For more information, see Section B.2.2.

### 6.6.14 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 6–7 and Table 6–8), 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 screen 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).
   - 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 Section 6.6.14.1.

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 Example 6–9 and the example table shown in Table 6–15.

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 Oracle Fusion Middleware Application Administrator’s Guide for Content Server.

---

Example 6–9 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 6–15 Example OAF_AXF_CMD_PARAMS Table With Extra Metadata Field Specified

<table>
<thead>
<tr>
<th>AXF_CMDS_ID</th>
<th>AXF_PARAM_NAME</th>
<th>AXF_DATASOURCE</th>
<th>AXF_VIEW_OBJ_NAME</th>
<th>AXF_ATTRIBUTE_NAME</th>
<th>AXF_CONSTANT_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>EBS_instanceA</td>
</tr>
<tr>
<td>2</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>REQ_HEADERS</td>
</tr>
<tr>
<td>3</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>REQUISITION_HEADER_ID</td>
</tr>
<tr>
<td>4</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>ReqHeaderVO</td>
<td></td>
<td>RequisitionHeaderId</td>
</tr>
</tbody>
</table>
6.6.14.1 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:

```xml
<entry><key>extraxReqNum</key><value>123456</value></entry>
```

6.6.15 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 Section B.4.4.
- 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.

6.6.16 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 Section 6.7.3, "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, select Managed Attachments from the Administration menu.
2. On the Configure Managed Attachments screen, scroll to the Entity Specific Configuration settings in the lower portion of the screen, and click Add.

The Add Entity Specific Configuration screen displays.
3. In the Add Entity Specific Configuration screen shown in Figure 6–8, 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 6–8 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.

### 6.6.17 Restoring Business Application User Pass Through for Managed Attachments

As described in Section 5.4.2, the 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 Section 6.2.1 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 6–16 and Section B.1.2.
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:

- Section 6.7.1, "Configuring a CSF Credential for Managed Attachments"
- Section 6.7.2, "Configuring User Authentication"
- Section 6.7.3, "Configuring Document Security"
- Section 6.7.4, "Securing Communications Between AXF and Content Server"
- Section 6.7.5, "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 username/password pair that is keyed by an alias and stored inside a named map in the CSF. The username stored in the CSF is compared with the username 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 usernames do not match (see Section B.1.4), 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 username and password for a valid Oracle WebLogic Server administrator (for example, weblogic and Welcome1).
   The username 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 Section 2.4.1), Oracle PeopleSoft (see Section 3.2.2.1), and a custom plug-in calling the Enterprise Application Adapter Framework (see Section 6.4.2).
10. Click OK.

<table>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF</td>
<td>USERNAME_PASS_THROUGH</td>
<td>TRUE</td>
</tr>
</tbody>
</table>

Table 6–16 AXF_SOLUTION_ATTRIBUTES Table, USERNAME_PASS_THROUGH Configuration for Managed Attachments
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 Section 2.4.1), Oracle PeopleSoft (see Section 3.2.2.1), and a custom plug-in calling the Enterprise Application Adapter Framework (see Section 6.4.2).

   ```sh
   createCred(map="oracle.wsm.security", key="MA_CSF_KEY", user=[username], password=[password])
   ```

   Example:

   ```sh
   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:

   ```sh
   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 screen within the supported business application entity. In addition, the authentication model configured for Content Server and the business application determines how users are authenticated the first time they activate managed attachments from a business application record:

- **Content Server configured for single sign-on:** If the business application is not configured for single sign-on, the 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 Section 6.7, "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 screen is deselected by default (set for private check-in). For more information, see Section 6.5.1, "Working With Global Configuration Variables."
Configuring Authentication and Security

### 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 Section B.5.1); or, if not specified, based on the configuration variable AppAdapterGrantPrivilege’s value (see Section 6.5). 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:

- Section 6.8.1, "About Configuring Oracle AutoVue"
- Section 6.8.2, "Requirements For Oracle VueLink for Content Server"
- Section 6.8.3, "Enabling AutoVue For the Adapter"

6.8.1 About Configuring Oracle AutoVue

The default document viewing option for the Managed Attachments screen 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 Section 6.7.2.
- 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 screen, 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:


**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 screen, enable display globally of the AutoVue icon by setting the `AppAdapterAutoVueIconVisible` variable to True. For general information, see Section 6.5.

4. In the `AutoVueURLPath` field, specify the AutoVue servlet to run, using the following format:

   http://ucm_host name:port/web_root/jsp/autovue/csiApplet.jsp

   For example:

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

Example 6–9 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 6–9 Example AutoVue Document Viewing](image)

### 6.9 Configuring Oracle Distributed Document Capture

This section covers the following topics:

- Section 6.9.1, "About Document Scanning Using Oracle Distributed Document Capture"
- Section 6.9.2, "Oracle Distributed Document Capture and Related Components Requirements"
- Section 6.9.3, "Configuring Oracle Distributed Document Capture For the Adapter"
- Section 6.9.4, "Configuring Content Server for Distributed Document Capture Via Adapter"
- Section 6.9.5, "Testing the Oracle Distributed Document Capture Via Adapter Configuration"

**Note:** For installation requirements specific to Oracle Distributed Document Capture use with this adapter, see Section 6.9.2.

#### 6.9.1 About Document Scanning Using Oracle Distributed Document Capture

The Oracle Distributed Document Capture application enables an application such as the adapter to direct it to scan a document and pass in document index values. This allows users to scan documents or import scanned image files from the Managed Attachments screen and attach them to the selected business application record.

When configured for the adapter, document scanning works as follows:

- A Scan button is added to the Managed Attachments screen. The user clicks the button, and selects options such as a document classification, which is assigned to an Oracle Distributed Document Capture scan profile. For example, the user might...
select a classification of *Identity Documents* to scan a photocopy of a driver’s license or passport. (An Oracle Distributed Document Capture scan profile specifies scanning, importing, and indexing settings.) The user also specifies whether the document should be shared, and if so the user specifies a security group 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 screen and refreshes the display to view the newly scanned document or imported scanned image file.

### 6.9.2 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:


**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.

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

### 6.9.3 Configuring Oracle Distributed Document Capture For the Adapter

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

On the System Settings tab of the Distributed Document Capture Server Configuration application shown in Figure 6–10, 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 6–10  Distributed Document Capture Server Configuration, System Settings Tab**

![Server Configuration dialog box with Web Server Authenticated Access selected]

1. In Capture Administration, add index fields to a selected file cabinet for capturing values for new documents, as shown in Figure 6–11. 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
3. In Oracle Distributed Document Capture’s Profile Administration, create a scan profile, as shown in Figure 6–12. 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.
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.
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 committing 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.

![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 Section 6.7.3, “Configuring Document Security.”

c. On the Check-In tab, choose **Assign values dynamically** and **By Field Mappings** fields, as shown in Figure 6–15. Also specify how you want documents named in the **Document Title** field. It is recommended that you use the Title field.

![Figure 6–15 Capture Administration, Check-In for Content Server Commit Settings](image)

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 screen shown in Figure 6–16:

- dAFApplication
- dAFBusinessObjectType
- dAFBusinessObject
Click OK. The custom fields you added now display on the Field Mappings tab shown in Figure 6–17. 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.
6.9.4 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 Section 6.5.
   - ODDCURLPath=http://ODDC_host/ODDC_webcapture_address
   - ODDCScanAction=ODDC Scan Action
   - AdapterAppScanBtnVisible=true

2. Restart Content Server.

3. On Content Server, configure document classification and scan types.
   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, PSFTIDocClassView for Oracle PeopleSoft, or UniversalDocClassView for Enterprise Application Adapter Framework), and click Edit Values.
4. In the Edit Values screen, click Add and add document classifications and their corresponding scan profile. Note that documentClassification entries must be unique, but a scan profile can be used multiple times. Click Close when done.

5. From the Options menu, select Publish schema to publish the data.

6.9.5 Testing the Oracle Distributed Document Capture Via Adapter Configuration

Follow these steps to test the configuration as an end-user. For more information, see the Oracle WebCenter User’s Guide for Application Adapters.

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.
4. Return to the Managed Attachments page and click Refresh. The newly scanned document or imported scanned image file should display in the list. (It may take a few minutes to display.)

6.10 Configuring Content Server Logging

For information about Content Server logging, see the Oracle WebCenter Content System Administrator’s Guide for Content Server.

6.11 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 Section 6.3.1.

1. Log in to Content Server as an administrator.

2. Select Admin Server from the Administration menu.

   The Content Admin Server page displays.

3. Click the name of the Content Server instance from which to uninstall the component.

   The Content Admin Server <instance_name> page displays.

4. Click Component Manager.

   The Component Manager page displays.

5. Select an adapter component in the Enabled Components list and click Disable.

6. Repeat step 5, selecting and disabling the remaining adapter components.

7. Click Start/Stop Content Server.

   The Content Admin Server <instance_name> displays.

8. Click Restart.

9. Click Component Manager.

   The Component Manager displays.

10. Select an adapter component in the Uninstall Component field and click Uninstall.

    Click OK to confirm uninstalling the component.

11. Repeat step 10, uninstalling the remaining adapter components.

12. Select the link to return to the Component Manager.

Note: If you decide to cancel a document scan or import, you must close the Oracle Distributed Document Capture screen and return to the Managed Attachments screen and perform a new scan or import. This ensures that index values are properly set for attachments.
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.
This appendix describes the AXF, Oracle E-Business Suite, and Oracle PeopleSoft configuration tables used for the 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:

- **Section A.1, "AXF Tables For the Imaging Solution"**
- **Section A.2, "AXF Web User Tools For the Imaging Solution"**
- **Section A.3, "AXF Commands For the Imaging Solution"**
- **Section A.4, "Oracle E-Business Suite Forms Tables For the Imaging Solution"**
- **Section A.5, "Oracle PeopleSoft Tables For the Imaging Solution"**

## A.1 AXF Tables For the Imaging Solution

This section describes the following AXF tables.

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

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

**Note:** If modifying AXF table values in a running system, either execute Clear DB Cache from the Driver page or restart the AXF application within the Application Server for the changes to take effect. For information about the Driver page, see "Verifying the AXF Installation with HelloWorld" in *Oracle WebCenter Content Installation Guide*.

The diagram that follows displays the AXF configuration tables and their relationships.
Figure A–1 AXF Configuration Tables (Imaging Solution)

<table>
<thead>
<tr>
<th>AXF Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_SOLUTIONS Table</td>
<td>Define AXF solutions, and general parameters for infrastructure, services, and solutions.</td>
</tr>
<tr>
<td>AXF_SOLUTION_ATTRIBUTES Table</td>
<td></td>
</tr>
<tr>
<td>AXF_COMMANDS Table</td>
<td>Define AXF commands within solutions.</td>
</tr>
<tr>
<td>AXF_SOLUTION_PARAMETERS Table</td>
<td>Define parameters for AXF commands and AXF web tools.</td>
</tr>
<tr>
<td>AXF_ACTION_MENU Table</td>
<td>Define task action pane itself and links in the pane.</td>
</tr>
<tr>
<td>AXF_ACTIONS Table</td>
<td></td>
</tr>
<tr>
<td>AXF_METADATA_BLOCKS Table,</td>
<td>Define optional sections, such as Summary, Comments, and dynamic data tables in the Task Viewer.</td>
</tr>
<tr>
<td>AXF_METADATA_ATTRIBUTES Table</td>
<td></td>
</tr>
<tr>
<td>AXF_ENUM_TYPES Table,</td>
<td>Define enumeration pickers and their values.</td>
</tr>
<tr>
<td>AXF_ENUM_ITEMS Table</td>
<td></td>
</tr>
<tr>
<td>AXF_XPATH_ATTRIBUTES Table,</td>
<td>Define XPATH attributes for payload elements.</td>
</tr>
<tr>
<td>AXF_XPATH_NAMESPACES Table</td>
<td></td>
</tr>
</tbody>
</table>

A.1.1 AXF_SOLUTIONS Table

The AXF_SOLUTIONS table defines the solutions used by AXF. It links to the AXF_COMMANDS Table through the SOLUTION_NAMESPACE column.
A.1.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLUTION_CONTEXT</td>
<td>Defines the JNDI name of the AXF solution implementation. (Currently, AxfCommandMediator is the only solution implementation.)</td>
</tr>
<tr>
<td>SOLUTIONNAMESPACE</td>
<td>Defines the AXF solution name.</td>
</tr>
</tbody>
</table>

A.1.2 Example Implementation

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

<table>
<thead>
<tr>
<th>SOLUTIONNAMESPACE</th>
<th>SOLUTIONCONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvoiceProcessing</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
<tr>
<td>AccountDistributionApproval</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
<tr>
<td>SupplierMaintenance</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
<tr>
<td>RequestInvoiceInformation</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
<tr>
<td>AccountDistribution</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
<tr>
<td>InvoiceApproval</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
<tr>
<td>Rescan</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>SOLUTIONNAMESPACE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLUTIONNAMESPACE</td>
<td>Specifies the solution namespace that uses this parameter.</td>
</tr>
</tbody>
</table>
A.1.2.2 Example Implementation

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

Table A–4   Example AXF SOLUTION_ATTRIBUTES Table

<table>
<thead>
<tr>
<th>SOLUTION NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvoiceProcessing</td>
<td>BPEL_CONNECTION</td>
<td>axfconnection</td>
</tr>
<tr>
<td>InvoiceProcessing</td>
<td>CONNECTION_PROVIDER</td>
<td>oracle.imaging.axf.servicemodules.bpmf.workflow.AxfWorkflowServiceModule</td>
</tr>
<tr>
<td>InvoiceProcessing</td>
<td>USE_AUTOTASK_LOCKING</td>
<td>TRUE</td>
</tr>
<tr>
<td>InvoiceProcessing</td>
<td>TASKLIST_RANGESIZE</td>
<td>10</td>
</tr>
</tbody>
</table>

A.1.3 AXF_COMMANDS Table

Use this table to define AXF commands and their java classes for each solution. Note that you configure each command's parameters in the AXF_SOLUTION_PARAMETERS Table.
A.1.3.1 Column Description

Table A–5  Column Description for AXF_COMMANDS Table

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLUTION_NAMESPACE</td>
<td>The name of the solution, as defined in the AXF_SOLUTIONS Table.</td>
</tr>
<tr>
<td>COMMAND_NAMESPACE</td>
<td>Defines the unique name of the command within the solution.</td>
</tr>
<tr>
<td>COMMAND_CLASS</td>
<td>The fully qualified class name in which the command is defined. This class is loaded and the execute() method representing the command is executed. For information about a specific task, see the specific task listed in Section A.3.</td>
</tr>
</tbody>
</table>

A.1.3.2 Example Implementation

This example shows commands defined for the Invoice Processing solution.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–6  Example AXF_COMMANDS Table

<table>
<thead>
<tr>
<th>COMMAND_CLASS</th>
<th>COMMAND_NAMESPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>oracle.imaging.axf.commands.bpel.AutotaskCommand</td>
<td>AutoOpenTask</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.ReleaseTaskCommand</td>
<td>ReleaseTask</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.ReleaseTaskCommand</td>
<td>SkipTask</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>AccountDistributionComplete</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>AssignProcessingGroupComplete</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>CompleteInvoice</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>DeleteInvoice</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>DuplicateInvoice</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>Hold</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>InvoiceApprovalComplete</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>RequestInformationComplete</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>RescanComplete</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>SpecialistExceptionComplete</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>SupplierMaintenance</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>SupplierMaintenanceComplete</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.OpenTaskCommand</td>
<td>OpenTask</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedureCommand</td>
<td>RetrieveUserList</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.UpdateTaskCommand</td>
<td>AttachSupplemental</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.bpel.UpdateTaskCommand</td>
<td>SaveInvoice</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>AccountDistributionEdit</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>AssignProcessingGroupEdit</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>EditComments</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>InvoiceApprovalEdit</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>RequestInformationEdit</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>RescanEdit</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>SearchIPM</td>
</tr>
</tbody>
</table>
A.1.4 AXF_SOLUTION_PARAMETERS Table

This table defines command parameters for the solution, AXF commands, and AXF web tools.

<table>
<thead>
<tr>
<th>COMMAND_CLASS</th>
<th>COMMAND_NAMESPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>SpecialistExceptionEdit</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>StartInvoiceProcessing</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>SupplierMaintenanceEdit</td>
</tr>
<tr>
<td>oracle.imaging.axf.commands.system.TerminateConversationCommand</td>
<td>TerminateConversation</td>
</tr>
</tbody>
</table>

A.1.4.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLUTION_NAMESPACE</td>
<td>Identifies the solution namespace, as defined in the AXF_SOLUTIONS Table.</td>
</tr>
<tr>
<td>COMMAND_NAMESPACE</td>
<td>Specifies the command name, as defined in the AXF_COMMANDS Table.</td>
</tr>
</tbody>
</table>
A.1.4.2 Example Implementation

This example defines the StartInvoiceProcessing command for the Invoice Processing solution. The first row specifies that the task list be displayed, using the RedirectCommand and corresponding URL. The remaining rows call the task list (in the CONFIGURATION_NAMESPACE column) and define its behavior.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

<table>
<thead>
<tr>
<th>COMMANDNAMESPACE</th>
<th>CONFIGURATIONNAMESPACE</th>
<th>PARAMETERKEY</th>
<th>PARAMETERVALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>StartInvoiceProcessing</td>
<td>oracle.imagining.axf.commands.bpmel.RedirectCommand</td>
<td>REDIRECTURL</td>
<td>taskflow:/WEB-INF/taskflows/axf-tasklist-tfd.xml#axf-tasklist-tfd</td>
</tr>
<tr>
<td>StartInvoiceProcessing</td>
<td>oracle.imagining.axf.web.backing.TaskList</td>
<td>CMD_OPENTASKBUTTON</td>
<td>OpenTask</td>
</tr>
<tr>
<td>StartInvoiceProcessing</td>
<td>oracle.imagining.axf.web.backing.TaskList</td>
<td>CMD_AUTO_TASKBUTTON</td>
<td>AutoOpenTask</td>
</tr>
<tr>
<td>StartInvoiceProcessing</td>
<td>oracle.imagining.axf.web.backing.TaskList</td>
<td>DEFAULTVIEW</td>
<td>(null)</td>
</tr>
<tr>
<td>StartInvoiceProcessing</td>
<td>oracle.imagining.axf.web.backing.TaskList</td>
<td>NO_OF_LINES</td>
<td>20</td>
</tr>
</tbody>
</table>
A.1.5 AXF_ACTION_MENU Table

Use this table to insert and customize an action menu on an AXF web page such as the Task Viewer or Task List screen. A common use is to display a Task Actions pane in the Task Viewer for users to click action links related to the displayed task, as shown in Figure A–2. Use the AXF_ACTIONS Table to define a specified menu’s actions.

### A.1.5.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENU_ID</td>
<td>Specifies a primary key to the AXF_ACTIONS Table, identifying the menu in which to place menu actions.</td>
</tr>
<tr>
<td>DISPLAY_TEXT</td>
<td>Specifies the pane’s title (for example, Task Actions, Shortcuts, or Re-Assignments).</td>
</tr>
<tr>
<td>MENU_TYPE</td>
<td>Specifies where on the screen the menu is displayed and its type. (LEFT_SIDEBAR displays a side pane leftmost on the screen.)</td>
</tr>
<tr>
<td>TASK_FLOW_ID</td>
<td>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.</td>
</tr>
<tr>
<td>VIEW_ID</td>
<td>(Reserved for future use.)</td>
</tr>
<tr>
<td>SOLUTION_NAMESPACE</td>
<td>Identifies the AXF solution, as defined in the AXF_SOLUTIONS Table.</td>
</tr>
<tr>
<td>MENU_ORDER</td>
<td>Defines the order in which the menu is displayed when multiple menus are set for display.</td>
</tr>
</tbody>
</table>

### A.1.5.2 Example Implementation

This example table implements a pane entitled Task Actions in the left side of the Task Viewer for the Invoice Processing solution.
A.1.6 AXF_ACTIONS Table

This table defines the task actions used in an AXF solution. You can display action menus on AXF web pages such as the Task Viewer page (see Section A.2.3) or a Task List (see Section A.2.2). This table links to the AXF_COMMANDS Table.

<table>
<thead>
<tr>
<th>MENU_ID</th>
<th>DISPLAY_TEXT</th>
<th>MENU_TYPE</th>
<th>TASK_FLOW_ID</th>
<th>VIEW_ID</th>
<th>SOLUTION_NAMESPACE</th>
<th>MENU_ORDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Task Actions</td>
<td>LEFT_SIDEBAR</td>
<td>axf-taskviewer-tfd</td>
<td>null</td>
<td>InvoiceProcessing</td>
<td>0</td>
</tr>
</tbody>
</table>

A.1.6.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY_TEXT</td>
<td>Specifies the name of the action (link, for example) in the pane.</td>
</tr>
<tr>
<td>COMMAND_NAMESPACE</td>
<td>Specifies the command called as a result of the action, as defined in the AXF_COMMANDS Table.</td>
</tr>
<tr>
<td>MENU_ORDER</td>
<td>Specifies the display order of the action in the pane.</td>
</tr>
<tr>
<td>ELEMENT_TYPE</td>
<td>Specifies how to render the action on the page, where LINK displays an HTML link.</td>
</tr>
</tbody>
</table>
| 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.                                                    |

A.1.6.2 Example Implementation

The tables that follow provide an example AXF_ACTIONS Table.
Fields not shown in Table A–12:
- ACTION_HANDLER=COMMAND
- REQUIRES_CONVERSATION=TRUE

Table A–12 Example AXF_ACTIONS Table

<table>
<thead>
<tr>
<th>DISPLAY_TEXT</th>
<th>COMMAND_NAMESPACE</th>
<th>MENU_ORDER</th>
<th>ELEMENT_TYPE</th>
<th>MENU_ID</th>
<th>ACTION_ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invoice Approval</td>
<td>Invoice/ApprovalEdit</td>
<td>1</td>
<td>LINK</td>
<td>0</td>
<td>AXF_ACTIONS_SEQ.NEXTVAL</td>
</tr>
<tr>
<td>Return to Task List</td>
<td>ReleaseTask</td>
<td>0</td>
<td>LINK</td>
<td>0</td>
<td>AXF_ACTIONS_SEQ.NEXTVAL</td>
</tr>
<tr>
<td>Skip Task</td>
<td>SkipTask</td>
<td>0</td>
<td>LINK</td>
<td>0</td>
<td>AXF_ACTIONS_SEQ.NEXTVAL</td>
</tr>
<tr>
<td>Complete Invoice</td>
<td>CompleteTask</td>
<td>0</td>
<td>LINK</td>
<td>0</td>
<td>AXF_ACTIONS_SEQ.NEXTVAL</td>
</tr>
</tbody>
</table>

A.1.7 AXF_XPATH_ATTRIBUTES Table

This table defines the XPATH attributes used in the AXF framework. This XPATH is mainly defined for payload elements.

A.1.7.1 Column Description

Table A–13 Column Description for AXF_XPATH_ATTRIBUTES Table

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTRIBUTE_KEY</td>
<td>Attribute key referenced in the Parameter Value column in the AXF_SOLUTION_PARAMETERS Table.</td>
</tr>
</tbody>
</table>
### Table A–13 (Cont.) Column Description for AXF_XPATH_ATTRIBUTES Table

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPATH</td>
<td>XPATH expression used to locate the value in the payload.</td>
</tr>
</tbody>
</table>

### A.1.7.2 Example Implementation

This example follows an XPATH attribute specified for an AssignProcessingGroupEdit command in the AXF_SOLUTION_PARAMETERS table. The PARAMETER_VALUE column contains an XPATH: prefix, indicating that the attribute value comes from the AXF_XPATH_ATTRIBUTES table.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

### Table A–14 Example AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th>ATTRIBUTE_KEY</th>
<th>XPATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvoiceProcessing_ProcessingGroup</td>
<td>//task:processingGroup</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>XMLNS_URI</th>
</tr>
</thead>
<tbody>
<tr>
<td>task</td>
<td><a href="http://xmlns.oracle.com/bpel/workflow/task">http://xmlns.oracle.com/bpel/workflow/task</a></td>
</tr>
</tbody>
</table>

### A.1.8 AXF_XPATH_NAMESPACES Table

The following table defines the namespaces used for the XPATH attributes. It links to the AXF_XPATH_ATTRIBUTES Table.

### A.1.8.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PREFIX</td>
<td>The namespace prefix used in the XPATH.</td>
</tr>
<tr>
<td>XMLNS_URI</td>
<td>Provides a unique identifier.</td>
</tr>
</tbody>
</table>
A.1.8.2 Example Implementation

Table A–18  Example AXF_XPATH_NAMESPACES Table

<table>
<thead>
<tr>
<th>Prefix</th>
<th>XMLNS_URI</th>
</tr>
</thead>
<tbody>
<tr>
<td>task</td>
<td><a href="http://xmlns.oracle.com/bpel/workflow/task">http://xmlns.oracle.com/bpel/workflow/task</a></td>
</tr>
<tr>
<td>documentContent</td>
<td><a href="http://xmlns.oracle.com/imaging/axf/documentContentTypes">http://xmlns.oracle.com/imaging/axf/documentContentTypes</a></td>
</tr>
<tr>
<td>solution</td>
<td><a href="http://xmlns.oracle.com/imaging/axf/solutionTypes">http://xmlns.oracle.com/imaging/axf/solutionTypes</a></td>
</tr>
<tr>
<td>invoiceProcessing</td>
<td><a href="http://xmlns.oracle.com/imaging/axf/InvoiceProcessing">http://xmlns.oracle.com/imaging/axf/InvoiceProcessing</a></td>
</tr>
<tr>
<td>xml</td>
<td><a href="http://www.w3.org/XML/1998/namespace">http://www.w3.org/XML/1998/namespace</a></td>
</tr>
</tbody>
</table>

A.2 AXF Web User Tools For the Imaging Solution

This section covers the following topics:

- Section A.2.1, "Solution Editor"
- Section A.2.2, "Task List Web Tool"
- Section A.2.3, "Task Viewer Web Tool"
- Section A.2.4, "Enumeration Picker Web Tool"
- Section A.2.5, "Identity Picker Web Tool"
- Section A.2.6, "Account Distribution Coding Form (Oracle E-Business Suite Only)"

A.2.1 Solution Editor

After initial configuration of an 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 web tools. For information about the Solution Editor, see "Solutions Editor Page" in Oracle WebCenter Content Administrator’s Guide for Imaging.

For example, use the Solution Editor for such tasks as:

- Changing the profiles (BPEL views) available to users in the Task List
- Changing the task actions available to users in the Task Viewer
- Changing the metadata items and bottom panel tabs displayed in the Task Viewer
- Specifying the enumeration values available for specified enumerations on the Enumeration Picker page

A.2.2 Task List Web Tool

The AXF Task List web tool is a reusable web interface for displaying human workflow tasks controlled by an AXF solution.
Task List Features

- The **Profile** list uses standard BPEL views to restrict the task list view based on user/group, BPEL Process versions, and BPEL payload attribute values. Use the BPM Worklist application to create views and share them with other users or groups. Use the Imaging Solution Editor’s General tab to edit the profile list, assign a default profile, and identify the uses of comment blocks within the solution. For more information, see “Solutions Editor Page: General Tab” in *Oracle WebCenter Content Administrator’s Guide for Imaging*.

- Users can select a task from the table by clicking its **View Task** link, which retrieves the workflow task from a specified BPEL server and process, claims it and displays it in the Task Viewer. After users complete the selected task, they return to the Task List. You can configure the number of tasks to return in the Task List at a time.

- When autotask mode is selected, the AXF solution automatically claims and opens tasks as users complete them, until all of a user’s tasks have been processed or the user chooses to stop processing tasks by returning to the Task List. Users activate autotask mode by clicking **Auto Task**.

- Users can release an assigned task by clicking the **Release** button. The task is then released back into the pool of available tasks. If the user clicks Release but did not previously acquire the selected task, a message indicates that the task cannot be released.

- Users can sort tasks by clicking a column heading. They can also search for specific tasks using the **Search** field. For details, see the *Oracle WebCenter User’s Guide for Application Adapters*. 

---

![AXF Web User Tools For the Imaging Solution](image)

**Invoices Processing**

<table>
<thead>
<tr>
<th>View Task</th>
<th>Invoice Processing</th>
<th>Task Number</th>
<th>Priority</th>
<th>Assignees</th>
<th>State</th>
<th>Create Date</th>
<th>Expires Date</th>
<th>Invoice Number</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Task</td>
<td>Invoice Processing</td>
<td>200792</td>
<td>3</td>
<td>California</td>
<td>ASSIGNED</td>
<td>9/29/2010 2:08 PM</td>
<td></td>
<td></td>
<td>Received</td>
</tr>
<tr>
<td>View Task</td>
<td>Invoice Processing</td>
<td>200840</td>
<td>3</td>
<td>California</td>
<td>ASSIGNED</td>
<td>10/5/2010 2:35 PM</td>
<td></td>
<td></td>
<td>Received</td>
</tr>
<tr>
<td>View Task</td>
<td>Invoice Processing</td>
<td>200841</td>
<td>3</td>
<td>California</td>
<td>ASSIGNED</td>
<td>10/5/2010 2:35 PM</td>
<td></td>
<td></td>
<td>Received</td>
</tr>
<tr>
<td>View Task</td>
<td>Invoice Processing</td>
<td>200842</td>
<td>3</td>
<td>California</td>
<td>ASSIGNED</td>
<td>10/5/2010 2:42 PM</td>
<td></td>
<td></td>
<td>Received</td>
</tr>
<tr>
<td>View Task</td>
<td>Invoice Processing</td>
<td>200843</td>
<td>3</td>
<td>California</td>
<td>ASSIGNED</td>
<td>10/5/2010 2:42 PM</td>
<td></td>
<td></td>
<td>Received</td>
</tr>
<tr>
<td>View Task</td>
<td>Invoice Processing</td>
<td>200845</td>
<td>3</td>
<td>California</td>
<td>ASSIGNED</td>
<td>10/5/2010 2:44 PM</td>
<td></td>
<td></td>
<td>Received</td>
</tr>
<tr>
<td>View Task</td>
<td>Invoice Processing</td>
<td>200844</td>
<td>3</td>
<td>California</td>
<td>ASSIGNED</td>
<td>10/5/2010 2:44 PM</td>
<td></td>
<td></td>
<td>Received</td>
</tr>
</tbody>
</table>
A.2.2.1 Task List Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMD_OPEN_TASK_BUTTON</td>
<td>Specify a COMMAND_NAMESPACE to execute when a user clicks the View Task link on the Task List web page.</td>
</tr>
<tr>
<td>CMD_AUTO_TASK_BUTTON</td>
<td>Specify a COMMAND_NAMESPACE to execute when a user clicks the Auto Task button on the Task List web page.</td>
</tr>
<tr>
<td>NO_OF_LINES</td>
<td>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.</td>
</tr>
<tr>
<td>VIEW_LIST</td>
<td>Specify the list of views (defined in the Human workflow system) displayed to users in the Profile field.</td>
</tr>
<tr>
<td>DEFAULT_VIEW</td>
<td>Specify the default profile. If used with the VIEW_LIST parameter, this value must also be listed in the VIEW_LIST value.</td>
</tr>
</tbody>
</table>

A.2.2.2 Example Implementation

This example defines the StartInvoiceProcessing command for the Invoice Processing solution. The first row uses the Redirect Command to display the task list. The remaining rows define the task list’s behavior.

Fields not shown: SOLUTIONNAMESPACE=InvoiceProcessing

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 Imaging Solution Editor to make the following changes to the Task Viewer:
- Edit the display label of the Action menu, define the menu item order, hide or display menu items and edit menu item labels, as described in “Solutions Editor Page: Actions Tab” in Oracle WebCenter Content Administrator’s Guide for Imaging.

- Edit the metadata block label, change the metadata item order, hide or display metadata items, edit metadata item labels, and change the dynamic data table (bottom panel) display, as described in “Solutions Editor Page: Task Viewer Tab” in Oracle WebCenter Content Administrator’s Guide for Imaging.

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 Section 5.4.10.

**Configuring the Task Viewer**
You configure the Task Viewer in the following tables:

- Section A.1.4, "AXF_SOLUTION_PARAMETERS Table"
- Section A.1.5, "AXF_ACTION_MENU Table"
- Section A.1.6, "AXF_ACTIONS Table"
- Section A.2.3.1, "AXF_METADATA_BLOCKS Table"
- Section A.2.3.2, "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.

```
<table>
<thead>
<tr>
<th>AXF_METADATA_BLOCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLOCK_ID</td>
</tr>
<tr>
<td>BLOCK_LOCATION</td>
</tr>
<tr>
<td>LABEL</td>
</tr>
<tr>
<td>DISCLOSED</td>
</tr>
<tr>
<td>DISPLAY_ORDER</td>
</tr>
<tr>
<td>TASK_FLOW_ID</td>
</tr>
<tr>
<td>SOLUTION_NAMESPACE</td>
</tr>
<tr>
<td>BLOCK_TYPE</td>
</tr>
<tr>
<td>METADATA_STYLE</td>
</tr>
<tr>
<td>ORGANIC_MENU_ID</td>
</tr>
</tbody>
</table>
```

**A.2.3.1.1 Column Description**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLOCK_ID</td>
<td>Identifies the row in the database. Links to the <code>AXF_METADATA_ATTRIBUTES Table</code>.</td>
</tr>
<tr>
<td>BLOCK_LOCATION</td>
<td>Specifies where the block displays on the Task Viewer page. <code>LEFT_SIDEBAR</code> displays a left sidebar pane.</td>
</tr>
<tr>
<td>LABEL</td>
<td>Defines the pane’s label (for example, <code>Summary</code> or <code>Comments</code>).</td>
</tr>
<tr>
<td>DISCLOSED</td>
<td>Specify <code>TRUE</code> to display the block in expanded form. If you specify <code>FALSE</code>, the item is displayed but collapsed.</td>
</tr>
<tr>
<td>DISPLAY_ORDER</td>
<td>Specifies the order in which the block is displayed.</td>
</tr>
<tr>
<td>TASK_FLOW_ID</td>
<td>Specifies the task flow on which to display the metadata block (for example, <code>afx-taskviewer-tfd</code> or <code>afx-tasklist-tfd</code>).</td>
</tr>
<tr>
<td>SOLUTION_NAMESPACE</td>
<td>Specifies the AXF solution name.</td>
</tr>
<tr>
<td>BLOCK_TYPE</td>
<td>Specifies the type of values contained in the block (for example, <code>METADATA</code> or <code>COMMENT</code>).</td>
</tr>
</tbody>
</table>
A.2.3.1.2 Example Implementation

This table displays the Summary and Comments section on the Task Viewer page.
Columns not shown: DISCLOSED=TRUE
ORGANIC_MENU_ID=null

Table A–22 Example AXF_METADATA_BLOCKS Table

<table>
<thead>
<tr>
<th>BLOCK_ID</th>
<th>BLOCK_LOCATION</th>
<th>LABEL</th>
<th>DISPLAY.ORDER</th>
<th>TASK_FLOW_ID</th>
<th>SOLUTION_NAMESPACE</th>
<th>BLOCK_TYPE</th>
<th>METADATA_STYLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LEFT_SIDEBAR</td>
<td>Summary</td>
<td>1</td>
<td>axf-taskviewer-tfd</td>
<td>InvoiceProcessing</td>
<td>METADATA</td>
<td>null</td>
</tr>
<tr>
<td>2</td>
<td>LEFT_SIDEBAR</td>
<td>Comments</td>
<td>2</td>
<td>axf-taskviewer-tfd</td>
<td>InvoiceProcessing</td>
<td>COMMENT</td>
<td>null</td>
</tr>
<tr>
<td>3</td>
<td>BOTTOM_PANEL</td>
<td>GL Lines</td>
<td>3</td>
<td>axf-taskviewer-tfd</td>
<td>InvoiceProcessing</td>
<td>METADATA</td>
<td>TABLE</td>
</tr>
</tbody>
</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.

Table A–21 Column Description for AXF_METADATA_BLOCKS Table

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>METADATA_STYLE</td>
<td>Specifies how metadata is used. You can specify null (not used) or table. Specify table to display a table of dynamic data from the BPEL payload XML in the bottom tabs. See Section 5.4.10.1, &quot;Formatting XML Data For a Dynamic Data Table.&quot; Note that this block displays only if there is data available. To hide the bottom panel, see Section 5.4.10.2. To configure a dynamic table, the following values must be specified: BLOCK_LOCATION = BOTTOM_PANEL, BLOCK_TYPE = METADATA, METADATA_STYLE = table</td>
</tr>
<tr>
<td>ORGANIC_MENU_ID</td>
<td>Reserved for future use.</td>
</tr>
</tbody>
</table>

A.2.3.2.1 Column Description
Table A–23  Column Description for AXF_METADATA_ATTRIBUTES Table

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLOCK_ID</td>
<td>References the AXF_METADATA_BLOCKS Table in which to display metadata labels and values.</td>
</tr>
<tr>
<td>ATTRIBUTE_ID</td>
<td>Primary key for the metadata attribute.</td>
</tr>
<tr>
<td>LABEL</td>
<td>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.</td>
</tr>
<tr>
<td>ATTRIBUTE_KEY</td>
<td>This attribute is updated in the BPEL task when a user clicks the OK button on the Task Viewer page. The attribute value is either a system attribute name (see Section A.3.6.2) or prefixed with XPATH, which uses the XPath table to find the value. Only XPATH is supported for a dynamic data table. If the IS_XPATH value is TRUE, the attribute_key value comes from the AXF_XPATH_ATTRIBUTES Table and is the XPATH to update the value in the task payload.</td>
</tr>
<tr>
<td>IS_XPATH</td>
<td>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.</td>
</tr>
<tr>
<td>DISPLAY_ORDER</td>
<td>Specifies the order in which the metadata label/value display in the metadata section. For a dynamic data table, specifies the column order.</td>
</tr>
<tr>
<td>DATA_TYPE</td>
<td>Specifies the metadata item’s data type (for example, String). This value must be STRING for a dynamic data table.</td>
</tr>
</tbody>
</table>

A.2.3.2.2  Example Implementation

Table A–24 defines metadata labels and values displayed in a Task Viewer’s Summary section, as shown in Figure A–2. For another example, see Section 5.4.10, “Configuring or Disabling a Dynamic Data Table.”

Columns not shown:

DATA_TYPE=String

Table A–24  Example AXF_METADATA_ATTRIBUTES Table for Summary Section

<table>
<thead>
<tr>
<th>BLOCK_ID</th>
<th>ATTRIBUTE_ID</th>
<th>LABEL</th>
<th>ATTRIBUTE_KEY</th>
<th>IS_XPATH</th>
<th>DISPLAY_ORDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Status</td>
<td>InvoiceProcessing_Status</td>
<td>TRUE</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Exception Code</td>
<td>InvoiceProcessing_ExceptionCode</td>
<td>TRUE</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>Processing Group</td>
<td>InvoiceProcessing_ProcessingGroup</td>
<td>TRUE</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>Invoice Number</td>
<td>InvoiceProcessing_InvoiceNumber</td>
<td>TRUE</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>Supplier Name</td>
<td>InvoiceProcessing_SupplierName</td>
<td>TRUE</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>Supplier Site</td>
<td>InvoiceProcessing_SupplierSiteName</td>
<td>TRUE</td>
<td>5</td>
</tr>
</tbody>
</table>

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 Section 1.2.4.5, "About Comments."

You can specify whether the Comments field is displayed on the General tab of Imaging’s Solution Editor, as described in “Solutions Editor Page: General Tab” in
Oracle WebCenter Content Administrator’s Guide for Imaging. You can display comments on the Task Viewer, Identity Picker, and Enumeration Picker screens.

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, as described in “Solutions Editor Page: Enumerations Tab” in *Oracle WebCenter Content Administrator’s Guide for Imaging*.

### A.2.4.1 Enumeration Picker Parameters

#### Table A–25 Enumeration Picker Parameters in AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOV_REFERENCE</td>
<td>This list of values reference links to the <code>AXF_ENUM_TYPES Table</code>, whose ID value links to the <code>AXF_ENUM_ITEMS Table</code>, where all picker values are stored.</td>
</tr>
<tr>
<td>ATTRIBUTE_NAME</td>
<td>This attribute is updated in the BPEL task when a user clicks the OK button on the Enumeration Picker web page. The attribute value is a constant; see Section A.3.6.2, “System Attributes.” If the value has an XPATH: prefix, the value comes from the <code>AXF_XPATH_ATTRIBUTES Table</code> and it is the XPATH to update the value in the task payload.</td>
</tr>
<tr>
<td>CMD_ON_CANCEL</td>
<td>Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the Cancel button on the Enumeration Picker page.</td>
</tr>
<tr>
<td>CMD_ON_OK</td>
<td>Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the OK button on the Enumeration Picker page.</td>
</tr>
<tr>
<td>ATTRIBUTE_LABEL</td>
<td>Specify the label name to display on the web page for attributes to be updated in the BPEL task.</td>
</tr>
<tr>
<td>DEFAULT_VALUE</td>
<td>Specify a default value for the picker. If no default is specified, a blank value displays.</td>
</tr>
<tr>
<td>DEFAULT_ALWAYS</td>
<td>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.</td>
</tr>
</tbody>
</table>

#### 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

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AssignProcessingGroupEdit</td>
<td>oracle.imaging.axf.web.backingEnumerationPicker</td>
<td>LOV_REFERENCE</td>
<td>ProcessingGroups</td>
</tr>
<tr>
<td>AssignProcessingGroupEdit</td>
<td>oracle.imaging.axf.web.backingEnumerationPicker</td>
<td>ATTRIBUTE_LABEL</td>
<td>ProcessingGroup</td>
</tr>
<tr>
<td>AssignProcessingGroupEdit</td>
<td>oracle.imaging.axf.web.backingEnumerationPicker</td>
<td>CMD_ON_OK</td>
<td>AssignProcessingGroupComplete</td>
</tr>
<tr>
<td>AssignProcessingGroupEdit</td>
<td>oracle.imaging.axf.web.backingEnumerationPicker</td>
<td>ATTRIBUTE_NAME</td>
<td>XPATH:InvoiceProcessing_</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ProcessingGroup</td>
</tr>
</tbody>
</table>
### A.2.4.2 AXF_ENUM_TYPES Table

This table defines Enumeration Pickers.

![AXF_ENUM_TYPES Diagram]

#### Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENUMERATION_ID</td>
<td>Specify an ID for the enumeration picker.</td>
</tr>
<tr>
<td>ENUMERATION_NAME</td>
<td>Specify a name for the enumeration picker configuration.</td>
</tr>
</tbody>
</table>

#### 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>
<thead>
<tr>
<th>ENUMERATION_ID</th>
<th>ENUMERATION_NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ProcessingGroups</td>
</tr>
<tr>
<td>2</td>
<td>SupplierMaintenanceCodes</td>
</tr>
<tr>
<td>3</td>
<td>SpecialistExceptionCodes</td>
</tr>
<tr>
<td>4</td>
<td>RescanCodes</td>
</tr>
</tbody>
</table>

### A.2.4.3 AXF_ENUM_ITEMS Table

This table defines a specified Enumeration Picker's values.

![AXF_ENUM_ITEMS Diagram]
Column Description

Table A–29  Column Description for AXF_ENUM_ITEMS Table

<table>
<thead>
<tr>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENUMERATION_ID</td>
<td>Specify the picker's ID, as defined in the AXF_ENUM_TYPES Table.</td>
</tr>
<tr>
<td>ITEM_ID</td>
<td>Specify an ID for the picker item.</td>
</tr>
<tr>
<td>DISPLAY_LABEL</td>
<td>Specify the item name to display in the picker field.</td>
</tr>
<tr>
<td>ATTRIBUTE_KEY</td>
<td>Specify the literal value to store in the payload. This value is often the same as the DISPLAY_LABEL's value, but can differ.</td>
</tr>
<tr>
<td>LIST_ORDER</td>
<td>Specify the order in which to list the value in the picker field.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>ENUMERATION_ID</th>
<th>ITEM_ID</th>
<th>DISPLAY_LABEL</th>
<th>ATTRIBUTE_KEY</th>
<th>LIST_ORDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>North</td>
<td>North</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>South</td>
<td>South</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>East</td>
<td>East</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>West</td>
<td>West</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>No Supplier</td>
<td>No Supplier</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>No Supplier Site</td>
<td>No Supplier Site</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Duplicate Invoice</td>
<td>Duplicate Invoice</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>Invalid Invoice Number</td>
<td>Invalid Invoice Number</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>No PO</td>
<td>No PO</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>Invalid PO</td>
<td>Invalid PO</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>PO Overbill</td>
<td>PO Overbill</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>Poor Image Quality</td>
<td>Poor Image Quality</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>Pages Out of Order</td>
<td>Pages Out of Order</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>Pages Missing</td>
<td>Pages Missing</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>Other</td>
<td>Other</td>
<td>4</td>
</tr>
</tbody>
</table>

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.
A.2.5.1 Identity Picker Parameters

Table A–31 Identity Picker Parameters in AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMD_ON_CANCEL</td>
<td>Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the Cancel button on the Identity Picker page.</td>
</tr>
<tr>
<td>CMD_ON_OK</td>
<td>Specify the command (COMMAND_NAMESPACE) to execute when a user clicks the OK button on the Identity Picker page.</td>
</tr>
<tr>
<td>IDENTITY_FILTER</td>
<td>Define how the identity picker searches, where:</td>
</tr>
<tr>
<td></td>
<td>- USER: The picker searches for user information defined in BPEL.</td>
</tr>
<tr>
<td></td>
<td>- GROUP: The picker searches for group information defined in BPEL.</td>
</tr>
<tr>
<td>Note:</td>
<td>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.</td>
</tr>
<tr>
<td>IDENTITY_FILTER_ATTRIBUTE</td>
<td>Define a wildcard search for the identity picker, where:</td>
</tr>
<tr>
<td></td>
<td>- TRAILING: Adds an asterisk (<em>) to the end of the search value, as in jc</em></td>
</tr>
<tr>
<td></td>
<td>- LEADING: Adds an asterisk (*) to the start of the search value, as in *cooper</td>
</tr>
<tr>
<td></td>
<td>- BOTH (default): Adds an asterisk (*) to the start and end of the search value, as in <em>jc</em></td>
</tr>
<tr>
<td></td>
<td>- 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.</td>
</tr>
<tr>
<td>Note:</td>
<td>A null value for this parameter results in an asterisk added to the start and end of search values (the default setting).</td>
</tr>
</tbody>
</table>
A.2.5.2 Example Implementation

This example shows an InvoiceApprovalEdit command that searches for user information stored in BPEL, and updates the BPEL task using an XPATH variable.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDENTITY_ATTRIBUTE</td>
<td>This attribute is updated in the BPEL task when a user clicks OK on the Identity Picker page. The Attribute value is a constant as defined under System Attributes; see Section A.3.6.2. If the value has an XPATH: prefix, then the value comes from the AXF_XPATH_ATTRIBUTES Table and it is the XPATH to update the value in the task payload.</td>
</tr>
</tbody>
</table>

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 screen from an Account Distribution task list, then key in account distribution codes.
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 Section 5.2. 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.

- Section A.2.6.1, "AXF_LOOKUPS Script for Coding Form Lookup Elements"
- Section A.2.6.2, "Example Account Distribution Coding Form Solution"
- Section A.2.6.3, "Example Supporting Commands for the Account Distribution Coding Form"
- Section A.2.6.4, "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.
The script is located at one of the following locations, depending on Oracle E-Business Suite release:

- `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

<table>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>SOLUTION_CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountDistribution</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
</tbody>
</table>

### 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>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>COMMAND_CLASS</th>
<th>COMMAND_NAMESPACE</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountDistribution</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>AccountDistributionApprove</td>
<td>Creates a command for the coding form’s Approve button.</td>
</tr>
<tr>
<td>AccountDistribution</td>
<td>oracle.imaging.axf.commands.bpel.ReleaseTaskCommand</td>
<td>AccountDistributionCancel</td>
<td>Creates a command for the coding form’s Cancel button.</td>
</tr>
<tr>
<td>AccountDistribution</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>AccountDistributionRequestInfo</td>
<td>Creates a command for the coding form’s Request Information button.</td>
</tr>
<tr>
<td>AccountDistribution</td>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>AssignUser</td>
<td>Creates a command for the coding form’s Re-Assign button.</td>
</tr>
<tr>
<td>AccountDistribution</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>AssignUserComplete</td>
<td>Creates a command to redirect users to the Identity Picker.</td>
</tr>
<tr>
<td>AccountDistribution</td>
<td>oracle.imaging.axf.commands.bpel.AutotaskCommand</td>
<td>AutoOpenTask</td>
<td>Creates a command for the autotask operation on the Task List.</td>
</tr>
<tr>
<td>AccountDistribution</td>
<td>oracle.imaging.axf.commands.bpel.OpenTaskCommand</td>
<td>OpenTask</td>
<td>Creates an OpenTask command link on the Task List.</td>
</tr>
<tr>
<td>AccountDistribution</td>
<td>oracle.imaging.axf.commands.system.RedirectCommand</td>
<td>StartAccountDistribution</td>
<td>Creates a command to redirect users from the Task List to the coding form.</td>
</tr>
</tbody>
</table>

### 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

---

A-26  Oracle WebCenter Administrator’s Guide for Application Adapters
A.3 AXF Commands For the Imaging Solution

AXF commands include:

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

Note: You can also deploy custom commands and chained commands to execute through AXF. See Section 5.4.8, "Deploying Custom Commands" and Section 5.4.9, "Configuring Chained Commands and Web Tools.

**Table A–35**  **Example AXF_SOLUTION_PARAMETERS Table** for Account Distribution Coding Form

<table>
<thead>
<tr>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>oracle.imaging.axf.web.backing.Coding</td>
<td>CMD_APPROVE</td>
<td>AccountDistributionApprove</td>
<td>COMMAND_ NAMESPACE to execute when a user clicks the coding form's Approve button.</td>
</tr>
<tr>
<td>oracle.imaging.axf.web.backing.Coding</td>
<td>CMD_CANCEL</td>
<td>AccountDistributionCancel</td>
<td>COMMAND_ NAMESPACE to execute when a user clicks the coding form's Cancel button.</td>
</tr>
<tr>
<td>oracle.imaging.axf.web.backing.Coding</td>
<td>CMD_REASSIGN</td>
<td>AssignUser</td>
<td>COMMAND_ NAMESPACE to execute when a user clicks the coding form's Re-Assign button.</td>
</tr>
<tr>
<td>oracle.imaging.axf.web.backing.Coding</td>
<td>CMD_REJECT</td>
<td>AccountDistributionReject</td>
<td>COMMAND_ NAMESPACE to execute when a user clicks the coding form's Reject button.</td>
</tr>
<tr>
<td>oracle.imaging.axf.web.backing.Coding</td>
<td>CMD_REQUEST_INFO</td>
<td>AccountDistributionRequestInfo</td>
<td>COMMAND_ NAMESPACE to execute when a user clicks the coding form's Request Information button.</td>
</tr>
<tr>
<td>oracle.imaging.axf.web.backing.Coding</td>
<td>DISABLE_PROJECT</td>
<td>FALSE</td>
<td>A flag to disable the Project lookups box on the coding form.</td>
</tr>
<tr>
<td>oracle.imaging.axf.web.backing.Coding</td>
<td>READ_ONLY</td>
<td>TRUE</td>
<td>Specify if users can enter and edit values on the coding form (FALSE, the default) or view them as read-only values (TRUE).</td>
</tr>
</tbody>
</table>
A.3.1 Open Task Command

This command acquires a task from BPEL (human work flow) for a given task ID; the specific task is likely selected from the task list. If the task can be acquired by the user, the command obtains the details of the task and displays the specified web page.

A.3.1.1 Open Task Command Parameters

Table A–36 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASK_VIEW_URL</td>
<td>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.</td>
</tr>
</tbody>
</table>

- 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-enumeration-picker-tfd.xml#axf-enumeration-picker-tfd (displays the Enumeration Picker)
- taskflow://WEB-INF/taskflows/axf-comments-tfd.xml#axf-comments-tfd (displays Comments)

A.3.1.2 Example Implementation

This example uses the OpenTask command to display the Task Viewer for the Invoice Processing solution.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

A.3.2 Autotask Command

This command displays autotask mode, in which a new human workflow task is automatically claimed for the user. Also see Section 5.4.4.

A.3.2.1 Autotask Command Parameters

Use the parameters in the AXF_SOLUTION_PARAMETERS Table to configure Autotask commands.
A.3.2.2 Example Implementation

This example uses the Autotask command to automatically claim tasks and display them in the Task Viewer for the Invoice Processing solution.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–38 Autotask Command Parameters in AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASK_VIEW_URL</td>
<td>Task flow returned in the response command upon executing this command.</td>
</tr>
<tr>
<td>CMD_ON_NO_TASKS</td>
<td>COMMAND_NAMESPACE to execute when there are no tasks.</td>
</tr>
<tr>
<td>BPEL_TRY_AUTO</td>
<td>Time in milliseconds between attempts to obtain the next task from the Human workflow system.</td>
</tr>
</tbody>
</table>

A.3.3 Release Task Command

The Release Task command releases a human workflow task. You can configure this command with actions to execute after it is complete, using CMD_AUTOTASK_ON and CMD_AUTOTASK_OFF parameters.

A.3.3.1 Release Task Command Parameters

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

Table A–39 Release Task Command Parameters

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AutoOpenTask</td>
<td>oracle.imaging.axf.commands.bpel.AutotaskCommand</td>
<td>CMD_ON_NO_TASKS</td>
<td>StartInvoiceProcessing</td>
</tr>
<tr>
<td>AutoOpenTask</td>
<td>oracle.imaging.axf.commands.bpel.AutotaskCommand</td>
<td>BPEL_TRY_AUTO</td>
<td>3000</td>
</tr>
</tbody>
</table>

A.3.3.2 Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–40 Example Release Task Commands in AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SkipTask</td>
<td>oracle.imaging.axf.commands.bpel.ReleaseTaskCommand</td>
<td>CMD_AUTOTASK_OFF</td>
<td>StartInvoiceProcessing</td>
</tr>
</tbody>
</table>
A.3.4 Complete Task Command

The Complete Task command updates the list of attributes and outcome for a specified task in the human task workflow. This command also takes the parameters defined for the Update Task Command.

In addition, the Complete Task command can update BPEL payload attribute values using request parameters to the command. You can also configure this command with actions to execute after it is complete, using CMD_AUTOTASK_ON and CMD_AUTOTASK_OFF parameters.

A.3.4.1 Complete Task Command Parameters

Table A–42 lists configuration parameters for this command. Use these parameters in the AXF_SOLUTION_PARAMETERS Table to configure commands.

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTCOME</td>
<td>Specify the outcome defined for the human workflow system. APPROVE and REJECT are available by default in any BPEL process; the process designer can create others.</td>
</tr>
<tr>
<td>CMD_AUTOTASK_ON</td>
<td>Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is on.</td>
</tr>
<tr>
<td>CMD_AUTOTASK_OFF</td>
<td>Specify the command (COMMAND_NAMESPACE) to execute when AUTOTASK mode is off.</td>
</tr>
</tbody>
</table>

A.3.4.2 Example Implementation

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SkipTask</td>
<td>oracle.imaging.axf.commands.bpel.ReleaseTaskCommand</td>
<td>CMD_AUTOTASK_OFF</td>
<td>AutoTaskOpen</td>
</tr>
<tr>
<td>ReleaseTask</td>
<td>oracle.imaging.axf.commands.bpel.ReleaseTaskCommand</td>
<td>CMD_AUTOTASK_OFF</td>
<td>StartInvoiceProcessing</td>
</tr>
<tr>
<td>ReleaseTask</td>
<td>oracle.imaging.axf.commands.bpel.ReleaseTaskCommand</td>
<td>CMD_AUTOTASK_ON</td>
<td>StartInvoiceProcessing</td>
</tr>
</tbody>
</table>

Table A–43 Example Complete Task Command in AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeleteInvoice</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>CMD_AUTOTASK_OFF</td>
<td>StartInvoiceProcessing</td>
</tr>
<tr>
<td>DeleteInvoice</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>CMD_AUTOTASK_ON</td>
<td>AutoOpenTask</td>
</tr>
<tr>
<td>DeleteInvoice</td>
<td>oracle.imaging.axf.commands.bpel.CompleteTaskCommand</td>
<td>OUTCOME</td>
<td>DELETE_INVOICE</td>
</tr>
</tbody>
</table>

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.

### A.3.5.1 Redirect Command Parameters

#### Table A–44  RedirectCommand Parameters

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REDIRECT_URL</td>
<td>This URL is returned in the response command upon executing this command. It is either:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>■ a task flow String corresponding to a task flow ID which loads one or more pages on the task flow.</td>
</tr>
<tr>
<td></td>
<td>■ a standard URL string that redirects to the specified URL.</td>
</tr>
<tr>
<td>EXTERNAL</td>
<td>If this has a value of TRUE, then the redirect page does not have a CID and PID appended to it. The re-direct URL is an external Web site and all request parameters are appended in the URL.</td>
</tr>
</tbody>
</table>

### A.3.5.2 Example Implementation

*Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing*

#### Table A–45  Example Redirect Command in AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>StartInvoiceProcessing</td>
<td>oracle.imaging.axf.commands.system.</td>
<td>EXTERNAL</td>
<td>FALSE</td>
</tr>
<tr>
<td>StartInvoiceProcessing</td>
<td>RedirectCommand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>StartInvoiceProcessing</td>
<td>oracle.imaging.axf.commands.system.</td>
<td>REDIRECT_URL</td>
<td>taskflow://WEB-INF/taskflows/axf-tasklist-tfd.xml#axf-tasklist-tfd</td>
</tr>
<tr>
<td>StartInvoiceProcessing</td>
<td>RedirectCommand</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### A.3.6 Update Task Command

The Update Task command can update one of the following: the list of attributes in the BPEL task, values in the XML payload using XPATH, or system attributes. (For an XPATH example, see Section A.3.6.3.)

You can create your own parameter keys for the Update Task command and use either a system attribute or an XPATH for the parameter value. AXF searches the request parameters and finds all the values that match the parameter keys (besides outcome), and pulls parameter keys for the list of attributes to use in that task payload.

To update a non-payload attribute in the BPEL task, use a system attribute from those listed in Section A.3.6.2. For example, the UpdateTask command can take the value of outcome (defined as PARAMETER_KEY) from the request parameter and update the OUTCOME (defined as PARAMETER_VALUE) attribute value in the task.

#### A.3.6.1 Update Task Command Parameters

#### Table A–46  Parameters for UpdateTaskCommand

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTCOME</td>
<td>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.</td>
</tr>
</tbody>
</table>
A.3.6.2 System Attributes

<table>
<thead>
<tr>
<th>System Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACQUIREDBY</td>
</tr>
<tr>
<td>APPROVERS</td>
</tr>
<tr>
<td>ASSIGNEDDATE</td>
</tr>
<tr>
<td>ASSIGNEDGROUP //Cannot be updated</td>
</tr>
<tr>
<td>ASSIGNEDUSER //Cannot be updated</td>
</tr>
<tr>
<td>CREATEDATE</td>
</tr>
<tr>
<td>CREATOR</td>
</tr>
<tr>
<td>DATEATTRIBUTE1-DATEATTRIBUTE5</td>
</tr>
<tr>
<td>EXPIREDDATE</td>
</tr>
<tr>
<td>ENDDATE</td>
</tr>
<tr>
<td>FORMATTRIBUTE1-FORMATATTRIBUTE5</td>
</tr>
<tr>
<td>FROMUSER</td>
</tr>
<tr>
<td>NUMBERATTRIBUTE1-NUMBERATTRIBUTE5</td>
</tr>
<tr>
<td>OUTCOME</td>
</tr>
<tr>
<td>OWNERGROUP</td>
</tr>
<tr>
<td>OWNERUSER</td>
</tr>
<tr>
<td>PRIORITY</td>
</tr>
<tr>
<td>STATE</td>
</tr>
<tr>
<td>TASKID</td>
</tr>
<tr>
<td>TASKNUMBER //Cannot be updated</td>
</tr>
<tr>
<td>TITLE</td>
</tr>
<tr>
<td>TASKDEFINITIONNAME</td>
</tr>
<tr>
<td>TEXTATTRIBUTE1-TEXTATTRIBUTE10</td>
</tr>
<tr>
<td>UPDATEDBY</td>
</tr>
<tr>
<td>URLATTRIBUTE1 - URLATTRIBUTE5</td>
</tr>
</tbody>
</table>

A.3.6.3 Example Implementation

This example shows two attributes updated by the same command_namespace, UpdateHelloBPEL. For more information about HelloBPEL, see "Verifying the AXF Installation with HelloBPEL" in Oracle WebCenter Content Installation Guide.

Fields not shown: SOLUTION_NAMESPACE=HelloBPEL

<table>
<thead>
<tr>
<th>Table A–47 Example UpdateTaskCommand Parameters in AXF_SOLUTION_PARAMETERS Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND_NAMESPACE</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>UpdateHelloBPEL</td>
</tr>
<tr>
<td>UpdateHelloBPEL</td>
</tr>
</tbody>
</table>
**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 Section A.3.7.2 for an example implementation and Section A.3.7.3 for an example stored pl/sql procedure.

**A.3.7.1 Update Task From Procedure Command Parameters**

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPATH_DATASTRING</td>
<td>Specifies an XPATH variable contained in the AXF_XPATH_ATTRIBUTES Table that refers to the XPATH where the list of returned data is stored.</td>
</tr>
<tr>
<td>XPATH_MESSAGESTRING</td>
<td>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).</td>
</tr>
<tr>
<td>CMD_NO_DATA</td>
<td>Specifies the command to execute if no results return from the pl/sql function.</td>
</tr>
<tr>
<td>CMD_DATA</td>
<td>Specifies the command to execute if results return from the pl/sql function.</td>
</tr>
<tr>
<td>CMD_ERROR</td>
<td>Specifies the command to execute if an error is returned from the pl/sql function.</td>
</tr>
<tr>
<td>JNDI_DS</td>
<td>Specifies the name of the JNDI data source, configured on the Application Server, to use for execution of the pl/sql function.</td>
</tr>
<tr>
<td>PLSQL_PROC</td>
<td>Specifies the name of the pl/sql function to call.</td>
</tr>
</tbody>
</table>

**A.3.7.2 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>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>SOLUTION_CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvoiceProcessing</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
</tbody>
</table>

**Table A–50 AXF_COMMANDS Table for UpdateTaskFromProcedureCommand Example** *(Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing)*

<table>
<thead>
<tr>
<th>COMMAND_CLASS</th>
<th>COMMAND_NAMESPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>oracle.imaging.axf.commands.bpel.UpdateTaskFromProcedure</td>
<td>RetrieveUserList Command</td>
</tr>
</tbody>
</table>
In the AXF_XPATH_ATTRIBUTES table that follows, the corresponding XPATH column displays the XPATH expression used to locate the value in the payload.

### AXF_XPATH_ATTRIBUTES Table for UpdateTaskFromProcedureCommand Example

<table>
<thead>
<tr>
<th>ATTRIBUTE_KEY</th>
<th>XPATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>InvoiceProcessing.InvoiceApprovalAssignment</td>
<td>//task:InvoiceApprovalAssignment</td>
</tr>
</tbody>
</table>

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

### AXF_XPATH_NAMESPACES Table for UpdateTaskFromProcedureCommand Example

<table>
<thead>
<tr>
<th>Prefix</th>
<th>XMLNS_URI</th>
</tr>
</thead>
<tbody>
<tr>
<td>task</td>
<td><a href="http://xmlns.oracle.com/bpel/workflow/task">http://xmlns.oracle.com/bpel/workflow/task</a></td>
</tr>
</tbody>
</table>

### A.3.7.3 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.

```sql
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;
```

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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.

A.3.9.1 Validate Task Command Parameters

Table A–54 ValidateTaskCommand Parameters

<table>
<thead>
<tr>
<th>Parameter Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTRIBUTE_TO_VALIDATE</td>
<td>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.</td>
</tr>
<tr>
<td>REGULAR_EXPRESSION</td>
<td>Defines a standard Regular Expression for validating the specified attribute.</td>
</tr>
<tr>
<td>CMD_ON_PASS</td>
<td>Specifies the command to execute after this command, if the validation is successful.</td>
</tr>
<tr>
<td>CMD_ON_FAIL</td>
<td>Specifies the command to execute after this command if the validation fails.</td>
</tr>
<tr>
<td>FAIL_MESSAGE</td>
<td>Specifies the message to display if the validation fails.</td>
</tr>
</tbody>
</table>

A.3.9.2 Example Implementation

The following configuration validates that the invoice has been saved (Invoice Transaction ID is not 0). If it is 0, the command reports the error message specified in the FAIL_MESSAGE parameter. For steps to add a validation, see Section 5.4.7.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing

Table A–55 Example ValidateTask Command in AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ValidateTransactionID</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>ATTRIBUTE_TO_VALIDATE</td>
<td>XPath:InvoiceProcessing.TransactionID</td>
</tr>
<tr>
<td>ValidateTransactionID</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>CMD_ON_PASS</td>
<td>CompleteInvoice</td>
</tr>
<tr>
<td>ValidateTransactionID</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>REGULAR_EXPRESSION</td>
<td>[^0]</td>
</tr>
<tr>
<td>ValidateTransactionID</td>
<td>oracle.imaging.axf.commands.bpel.ValidateTaskCommand</td>
<td>FAIL_MESSAGE</td>
<td>Please save the transaction before completing the task.</td>
</tr>
</tbody>
</table>

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

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

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

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

![Diagram showing relationships between AXF_CONFIGS, AXF_COMMANDS, AXF_PROPERTIES, and AXF_COMMAND_PARAMETERS tables.]

A.4.2 AXF_CONFIGS Table (Oracle E-Business Suite)

Use the AXF_CONFIGS table to enable the AXF solution on various Oracle E-Business Suite Forms. This table provides a fine level of granularity when selecting which Forms to AXF-enable, up to the Data Block level.

Form events are automatically invoked when an action is performed on an Oracle E-Business Suite Form. The AXF_CUSTOM.pll makes all events available, such as POST-INSERT, for customization. You can decide which events to use, and how and when to use them.

When an action occurs, the customized code launches the specified solution and command configured for the event. In the case where the same form is being reused, such as Invoice Entry and Invoice Query, FORMFUNCTION and DATABLOCKNAME uniquely identify each Form.

**Note:** You can enable all datablocks on a form rather than a specific datablock, by specifying `AXF_DEFAULT` for the DATABLOCKNAME parameter. This allows AXF to be notified whenever a POST-INSERT event occurs for the form, regardless of its datablock. Note, however, that setting the DATABLOCKNAME parameter to AXF_DEFAULT enables specified ZOOM or SPECIAL commands on all screens related to the form. (Set ZOOM and SPECIAL commands in the AXF_COMMANDS Table.)
A.4.2.1 Column Description

Table A–56 Column Description for AXF_CONFIGS Table

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMID</td>
<td>Specifies the primary key of the table.</td>
</tr>
<tr>
<td>FORMFUNCTION</td>
<td>Distinguishes each Oracle E-Business Suite Form based on the form’s functionality.</td>
</tr>
<tr>
<td>SOLUTIONENDPOINT</td>
<td>Specifies a URL to AXF. This value should start as https:// if SecureMode is on. See Section 2.4.2, “Securing Communications Through SSL (Oracle E-Business Suite).”</td>
</tr>
<tr>
<td>ENTITYNAME</td>
<td>Used by the attachment functionality as a unique name, which links attachments to the correct Forms.</td>
</tr>
<tr>
<td>LOGENABLED</td>
<td>Enables or disables the log for the specified form. Specify one of the following:</td>
</tr>
<tr>
<td></td>
<td>■ 1/TRUE/YES</td>
</tr>
<tr>
<td></td>
<td>■ 0/FALSE/NO</td>
</tr>
<tr>
<td>DATABLOCKNAME</td>
<td>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.</td>
</tr>
</tbody>
</table>

A.4.2.2 Example Implementation

This example defines that the entire Invoices Form is AXF-enabled. (Without the first row, the INV_SUM_FOLDER Data Block of the Invoices Form would be enabled.)

The last row in this example table shows the paperclip attachment feature enabled, by disabling the Managed Attachments solution. For more information, see Section 5.4.11.

Fields not shown: LOGENABLED=YES

Table A–57 Example AXF_CONFIGS Table

<table>
<thead>
<tr>
<th>FORMID</th>
<th>FORMFUNCTION</th>
<th>SOLUTIONENDPOINT</th>
<th>ENTITYNAME</th>
<th>DATABLOCKNAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AP_APXINWKB</td>
<td><a href="https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService">https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService</a></td>
<td>AP_INVOICES</td>
<td>AXF_DEFAULT</td>
</tr>
<tr>
<td>2</td>
<td>AP_APXINWKB_SUMMARY_VIEW</td>
<td><a href="https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService">https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService</a></td>
<td>AP_INVOICES</td>
<td>INV_SUM_FOLDER</td>
</tr>
<tr>
<td>6</td>
<td>AP_APXINWKB_BATCHES</td>
<td><a href="https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService">https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService</a></td>
<td>AP_INVOICES</td>
<td>INV_SUM_FOLDER</td>
</tr>
<tr>
<td>7</td>
<td>AXF_MANAGED_ATTACHMENTS-DISABLE</td>
<td><a href="https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService">https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService</a></td>
<td>(null)</td>
<td>(null)</td>
</tr>
</tbody>
</table>

A.4.3 AXF_COMMANDS Table (Oracle E-Business Suite)

Use the AXF_COMMANDS table to describe the actions to take based on user activity. This table works with the AXF_CONFIGS Table (Oracle E-Business Suite).
A.4.3.1 Column Description

Table A–58  Column Description for AXF_COMMANDS Table

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMID</td>
<td>Links to the AXF_CONFIGS Table (Oracle E-Business Suite).</td>
</tr>
<tr>
<td>EVENTID</td>
<td>Primary key of the table.</td>
</tr>
<tr>
<td>EVENTNAME</td>
<td>Name of the Event command to invoke (for example, ZOOM, POST-INSERT).</td>
</tr>
<tr>
<td>DISPLAYMENU</td>
<td>Displays text of the menu for the command.</td>
</tr>
<tr>
<td>COMMANDNAMESPACE</td>
<td>Request command to pass to the back-end when the menu is selected.</td>
</tr>
<tr>
<td>REQUIRESCONVERSATION</td>
<td>Indicates if the command requires a valid conversation or not.</td>
</tr>
<tr>
<td>SORTBY</td>
<td>Order in which to display the menu.</td>
</tr>
<tr>
<td>SOLUTIONNAMESPACE</td>
<td>Name of the solution.</td>
</tr>
</tbody>
</table>

MENUTYPE

Specify the menu type to display to users in Oracle E-Business Suite. You can choose:
- ZOOM: Displays a Zoom menu in the toolbar.
- ZOOMANDSPECIAL: Displays both a Zoom menu and a Special menu.
  (Enter a special key in the SPECIAL column.)
- SPECIAL: Displays a Special menu on the toolbar. (Enter a special key in the Special column.)

SPECIAL

Create new menu entries by entering a unique number for the Special type menu, where:
- SPECIAL1-15 creates entries in the Tools menu.
- SPECIAL16-30 creates entries in the Reports menu.
- SPECIAL31-45 creates entries in the Actions menu.
(Consult the Oracle E-Business Suite Documentation for further information.)

RESPONSIBILITY

Reserved for future use.

A.4.3.2 Example Implementation

This example shows two commands invoked from the Zoom menu (Attach Supplemental and Process Invoices). Each command is listed twice because the commands enable the same functionality, but on two different screens.

In addition, the solution has been configured to invoke the SaveInvoice command during the POST-INSERT event, which specifies that whenever an action inserts a new Oracle E-Business Suite transaction record, the integration automatically invokes the SaveInvoice command on the back-end, performing the actions associated with the command. Note that POST-INSERT is not called by a subsequent save of the same transaction record in Oracle E-Business Suite.

Fields not shown: SOLUTION_NAMESPACE=InvoiceProcessing, SPECIAL=(null), RESPONSIBILITY=(null)

Table A–59  Example AXF_COMMANDS Table

<table>
<thead>
<tr>
<th>EVENTID</th>
<th>FORMID</th>
<th>EVENTNAME</th>
<th>DISPLAYMENU</th>
<th>COMMANDNAMESPACE</th>
<th>REQUIRESCONVERSATION</th>
<th>SORTBY</th>
<th>MENUTYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>1</td>
<td>ZOOM</td>
<td>Attach Supplemental</td>
<td>AttachSupplemental</td>
<td>YES</td>
<td>2</td>
<td>ZOOM</td>
</tr>
<tr>
<td>14</td>
<td>6</td>
<td>ZOOM</td>
<td>Attach Supplemental</td>
<td>AttachSupplemental</td>
<td>YES</td>
<td>2</td>
<td>ZOOM</td>
</tr>
<tr>
<td>13</td>
<td>6</td>
<td>ZOOM</td>
<td>Process Batch Invoices</td>
<td>StartInvoiceProcessing</td>
<td>NO</td>
<td>1</td>
<td>ZOOM</td>
</tr>
</tbody>
</table>
A.4.4 AXF_COMMAND_PARAMETERS Table (Oracle E-Business Suite)

Use the AXF_COMMAND_PARAMETERS table to define the information sent for each defined command. Each command may require or omit a different set of parameters.

### A.4.4.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARAMETERID</td>
<td>Defines a unique ID for the parameter.</td>
</tr>
<tr>
<td>EVENTID</td>
<td>Defines a unique ID for the event. Comes from the AXF_COMMANDS Table.</td>
</tr>
<tr>
<td>PARAMETERNAME</td>
<td>The name of the parameter to pass.</td>
</tr>
<tr>
<td>DATASOURCENAME</td>
<td>Data Source for the parameter value. You can specify Data or Constant.</td>
</tr>
<tr>
<td>DATABLOCKNAME</td>
<td>Data Block of the Form from which the value is fetched.</td>
</tr>
<tr>
<td>FIELDNAME</td>
<td>Field Name in the form from which the value is fetched.</td>
</tr>
<tr>
<td>CONSTANTVALUE</td>
<td>A constant value for the parameter.</td>
</tr>
</tbody>
</table>

### A.4.4.2 Example Implementation

The example that follows contains two parameters sent for EventID 2: a constant value (InvoicesByVendor) and a data value (VENDOR_NAME) in the INVOICES_QF Data Block.

The COMPLETE command requires that a conversation be established between Oracle E-Business Suite and AXF. A Conversation is a session unique ID that allows communication between Oracle E-Business Suite and AXF Framework.

If a command requires a separate window to open, then Oracle E-Business Suite opens another instance of the browser. Users may then take additional steps in the newly created window.

### Table A–61 Example AXF_COMMAND_PARAMETERS Table

<table>
<thead>
<tr>
<th>PARAMETERID</th>
<th>EVENTID</th>
<th>PARAMETERNAME</th>
<th>DATASOURCENAME</th>
<th>DATABLOCKNAME</th>
<th>FIELDNAME</th>
<th>CONSTANTVALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>SearchName</td>
<td>CONSTANT</td>
<td>(null)</td>
<td>(null)</td>
<td>InvoicesByVendor</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>VendorName</td>
<td>DATA</td>
<td>INVOICES_QF</td>
<td>VENDOR_NAME</td>
<td>(null)</td>
</tr>
<tr>
<td>18</td>
<td>11</td>
<td>InvoiceTransactionID</td>
<td>DATA</td>
<td>INV_SUM_FOLDER</td>
<td>INVOICE_ID</td>
<td>(null)</td>
</tr>
</tbody>
</table>
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.

A.4.5.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPNAME</td>
<td>Specifies properties to use. Properties include:</td>
</tr>
<tr>
<td></td>
<td>■ SecureMode: To enable SSL, set this property to ON, and set values for AXFWalletPath and AXFWalletKey properties.</td>
</tr>
<tr>
<td></td>
<td>■ AXFWalletPath: Certificate location (path).</td>
</tr>
<tr>
<td></td>
<td>■ AXFWalletKey: Specify the key for the AXF wallet password, to be retrieved from the Oracle E-Business Suite vault.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_VERSION: Specify 1 for AXF 10g, or 2 for AXF 11g.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_SOAP_POLICY: Specify the name of the SOAP policy to use. The currently supported policy is USER_NAME_TOKEN.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_SOAP_SECURITY: Specify TRUE (required), which enables SOAP security, as described in Section 2.4.1.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in Section 2.4.1.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_PAPERCLIP: Set to TRUE to enable the paperclip option, or FALSE (default) to disable it. Also see Section 5.4.11.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_MULTINSTANCE: Allows you to target the same instance/conversation when multiple instances of a particular Oracle E-Business Suite screen are displayed. See Section 5.4.6. 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.</td>
</tr>
<tr>
<td>PROPVALUE</td>
<td>Specifies the property's value.</td>
</tr>
</tbody>
</table>

A.4.5.2 Example Implementation

This example table shows the default properties values.
A.5 Oracle PeopleSoft Tables For the Imaging Solution

Configuring the adapter for Oracle PeopleSoft requires configuring AXF-related tables in Oracle PeopleSoft. For more information, see Section 3.5.

This section covers the following topics:

- Section A.5.1, "About the Oracle PeopleSoft AXF Tables For the Imaging Solution"
- Section A.5.2, "PS_AXF_CONFIG Table"
- Section A.5.3, "PS_AXF_COMMANDS Table"
- Section A.5.4, "PS_AXF_COMMAND_PARAMS Table"
- Section A.5.5, "PS_AXF_PROPERTIES Table"

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

The following diagram shows how the tables used by the Oracle PeopleSoft system in AXF solutions are related.
A.5.2 PS_AXF_CONFIG Table

Use the PS_AXF_CONFIG table to enable the AXF solution on various Oracle PeopleSoft components. This table provides a fine level of granularity when selecting which pages and components to AXF-enable.

Events are automatically invoked when an action is performed on an Oracle PeopleSoft page. The AXF_PS_Integration project component catches PRE- and POST-save events and makes them available for customization. You can decide which events to use and how and when to use them.

A.5.2.1 Column Description

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CONFIG_ID</td>
<td>Specifies the primary key of the table.</td>
</tr>
<tr>
<td>AXF_COMPONENT_NAME</td>
<td>Specifies the name of the Oracle PeopleSoft component being enabled.</td>
</tr>
<tr>
<td>AXF_CONNECT_NAME</td>
<td>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.</td>
</tr>
</tbody>
</table>
| AXF_VERSION          | Specifies the AXF version of the connection. Available values include:  
  - 10g  
  - 11g |

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

A.5.2.2 Example Implementation

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

<table>
<thead>
<tr>
<th>AXF_CONFIG_ID</th>
<th>AXF_COMPONENT_NAME</th>
<th>AXF_CONNECT_NAME</th>
<th>AXF_VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VCHR_QUICK_PNL</td>
<td>AXF_EXECUTE</td>
<td>11g</td>
</tr>
</tbody>
</table>

A.5.3 PS_AXF_COMMANDS Table

Use the PS_AXF_COMMANDS table to describe the actions to take based on user activity. This table works with the PS_AXF_CONFIG Table.
A.5.3.1 Column Description

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CMDS_ID</td>
<td>Specifies the primary key of the table, used to identify the unique command.</td>
</tr>
<tr>
<td>AXF_CONFIG_ID</td>
<td>Specifies the foreign key to the PS_AXF_CONFIG Table, which associates this unique command with a particular page and component.</td>
</tr>
</tbody>
</table>
| 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 Section 3.3. 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 screen.                                                           |
| AXF_SOL_NAMESPC  | Identifies the solution namespace for the command to execute.                                                                                |
| AXF_CMD_NAMESPC  | Identifies the command namespace for the command to execute.                                                                                |
| AXF_PSFT_ROLE    | Identifies the Oracle PeopleSoft roles with access to the command. It is a comma-delimited list with each role enclosed in single quotes (for example, ‘Role1’, ‘Role2’, ‘Role3’). |
| AXF_SORT_ORDER   | Specifies the order of items displayed in a selection field. Sort order applies to selection fields only.                                    |
| AXF_REQ_CONV     | Specifies if a conversation is required to this command before execution. For example, execution of the UpdateTask command requires a conversation be running in order for the user to select a current task. |

A.5.3.2 Example Implementation

This example shows two commands added to an invoice processing page. One inserts a button that when clicked initiates invoice processing. The other inserts a link that when clicked initiates a search of 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
A.5.4 PS_AXF_COMMAND_PARAMS Table

Use the PS_AXF_COMMAND_PARAMS table to specify the information sent for each defined command. Each command may require or omit a different set of parameters.

A.5.4.1 Column Description

Table A–68 Column Description for AXF_COMMAND_PARAMETERS Table

<table>
<thead>
<tr>
<th>Column Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CMDS_PARAMS_ID</td>
</tr>
<tr>
<td>AXF_CMDS_ID</td>
</tr>
<tr>
<td>AXF_PARAM_NAME</td>
</tr>
<tr>
<td>AXF_DATASOURCE</td>
</tr>
<tr>
<td>AXF_RECORD_NAME</td>
</tr>
<tr>
<td>AXF_FIELD_NAME</td>
</tr>
<tr>
<td>AXF_CONSTANT_VALUE</td>
</tr>
</tbody>
</table>

A.5.4.2 Example Implementation

The example that follows contains three parameters sent for AXF_CMDS_ID 2: a constant value (SearchName) and two data values (INVOICENUMBER and InvoiceTransactionID).
A.5.5 PS_AXF_PROPERTIES Table

Use the PS_AXF_PROPERTIES table to define properties for an AXF integration with Oracle PeopleSoft. See Section 5.4.12, "Resizing Oracle PeopleSoft Popup Solution Windows."

A.5.5.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_PROPNAME</td>
<td>Specifies properties to use. Properties include:</td>
</tr>
<tr>
<td></td>
<td>■ WINDOW_HEIGHT: Specify the popup window’s height in pixels. (This refers</td>
</tr>
<tr>
<td></td>
<td>to any popup window that displays as part of the solution.)</td>
</tr>
<tr>
<td></td>
<td>■ WINDOW_WIDTH: Specify the popup window’s width in pixels.</td>
</tr>
<tr>
<td>AXF_PROPVALUE</td>
<td>Specifies the property’s value.</td>
</tr>
</tbody>
</table>

A.5.5.2 Example Implementation

This example table shows the default properties values.

<table>
<thead>
<tr>
<th>AXF_PROPNAME</th>
<th>AXF_PROPVALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINDOW_HEIGHT</td>
<td>600</td>
</tr>
<tr>
<td>WINDOW_WIDTH</td>
<td>800</td>
</tr>
</tbody>
</table>
Managed Attachments Solution Tables

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:

- Section B.1, "AXF Tables For the Managed Attachments Solution"
  Application Extension Framework (AXF) tables define the solution, its system parameters, and the GrantAccess command used.

- Section B.2, "Oracle E-Business Suite Forms Tables For the Managed Attachments Solution"
  Oracle E-Business Suite Forms tables define how the Managed Attachments screen is activated through the Zoom menu on selected Oracle E-Business Suite forms.

- Section B.3, "Oracle E-Business Suite OAF Tables For the Managed Attachments Solution"
  Oracle E-Business Suite OAF tables define how the Managed Attachments screen is activated through a button added via personalization to selected OAF pages, which redirects to the Managed Attachments URL in Content Server.

- Section B.4, "Oracle PeopleSoft Tables For the Managed Attachments Solution"
  Oracle PeopleSoft tables define how the Managed Attachments screen is activated through a button, link, or menu on selected Oracle PeopleSoft pages.

- Section B.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.

Many of the Managed Attachments tables are automatically populated during the business application plug-in configuration (see Chapter 2 or Chapter 3) and Managed Attachments configuration (see Chapter 6). 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

**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 Schemes

<table>
<thead>
<tr>
<th>AXF Table</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_SOLUTIONS Table</td>
<td>Defines AXF solutions and general parameters for infrastructure, services, and solutions.</td>
</tr>
<tr>
<td>AXF_SOLUTION_ATTRIBUTES Table</td>
<td></td>
</tr>
<tr>
<td>AXF_COMMANDS Table</td>
<td>Defines AXF commands within solutions.</td>
</tr>
<tr>
<td>AXF_SOLUTION_PARAMETERS Table</td>
<td>Defines parameters for AXF commands.</td>
</tr>
</tbody>
</table>

#### B.1.1 AXF_SOLUTIONS Table

The AXF_SOLUTIONS table defines the solutions used by AXF. It links to the AXF_COMMANDS Table through the SOLUTION_NAMESPACE column.
B.1.1.1 Column Description

**Table B–1  Column Description for AXF_SOLUTIONS Table**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLUTION_CONTEXT</td>
<td>Defines the JNDI name of the AXF solution implementation. (Currently, AxfCommandMediator is the only solution implementation.)</td>
</tr>
<tr>
<td>SOLUTION_NAMESPACE</td>
<td>Defines the AXF solution name.</td>
</tr>
</tbody>
</table>

B.1.1.2 Example Implementation

This example shows the Managed Attachments solution defined, using AxfCommandMediator as its solution implementation.

**Table B–2  Example AXF_SOLUTIONS Table**

<table>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>SOLUTION_CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCM_Managed_Attachments</td>
<td>ejb.AxfCommandMediator#oracle.imaging.axf.service.AxfCommandMediatorRemote</td>
</tr>
</tbody>
</table>

B.1.2 AXF_SOLUTION_ATTRIBUTES Table

This table defines general attributes for use by infrastructure, services, or solutions.

**Table B–3  Column Description for AXF_SOLUTION_ATTRIBUTES Table**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLUTION_NAMESPACE</td>
<td>Specifies the solution namespace that uses this parameter.</td>
</tr>
<tr>
<td>PARAMETER_KEY</td>
<td>Name of the parameter. Used when retrieving the parameter value from the database. Applicable parameters include:</td>
</tr>
<tr>
<td></td>
<td>- 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 Section 6.6.17.</td>
</tr>
<tr>
<td>PARAMETER_VALUE</td>
<td>Value of the parameter.</td>
</tr>
</tbody>
</table>

B.1.2.2 Example Implementation

This example table sets solution attributes for the Managed Attachments solution.
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.

B.1.3.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLUTION_NAMESPACE</td>
<td>The name of the solution, as defined in the AXF_SOLUTIONS Table.</td>
</tr>
<tr>
<td>COMMAND_NAMESPACE</td>
<td>Defines the unique name of the command within the solution.</td>
</tr>
<tr>
<td>COMMAND_CLASS</td>
<td>The fully qualified class name in which the command is defined. This class is loaded and the execute() method representing the command is executed.</td>
</tr>
</tbody>
</table>

B.1.3.2 Example Implementation

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

<table>
<thead>
<tr>
<th>SOLUTION_NAMESPACE</th>
<th>COMMAND_CLASS</th>
<th>COMMAND_NAMESPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm.AfGrantAccessCommand</td>
<td>UCM_Managed_Attachments</td>
</tr>
</tbody>
</table>

B.1.4 AXF_SOLUTION_PARAMETERS Table

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

B.1.4.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLUTION_NAMESPACE</td>
<td>Identifies the solution namespace, as defined in the AXF_SOLUTIONS Table.</td>
</tr>
<tr>
<td>COMMAND_NAMESPACE</td>
<td>Specifies the command name, as defined in the AXF_COMMANDS Table.</td>
</tr>
</tbody>
</table>
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 Section 6.2.1.

- 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.

### Table B–7 (Cont.) Column Description for AXF_SOLUTION_PARAMETERS Table

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONFIGURATION_NAMESPACE</td>
<td>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.</td>
</tr>
<tr>
<td>PARAMETER_KEY</td>
<td>Specifies the parameter key to use in the AXF command. Parameters include:</td>
</tr>
<tr>
<td>RIDC_CONNECTION_STR</td>
<td>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.)</td>
</tr>
<tr>
<td>UCM_CONNECTION_STR</td>
<td>Specifies the base URL that executes the Content Server attachments framework search, which lists associated documents. This parameter also sets the following values:</td>
</tr>
<tr>
<td></td>
<td>- Host name or IP address of the system on which Content Server is running</td>
</tr>
<tr>
<td></td>
<td>- Port on which the web server is listening.</td>
</tr>
<tr>
<td></td>
<td>- Content Server profile (default profile is EBSProfile or PSFTProfile. If using the universal adapter described in Section 6.4, specify UniversalProfile.)</td>
</tr>
<tr>
<td></td>
<td>- GET_SEARCH_RESULTS_FORCELOGIN service ResultTemplate (default template is EBS_LIST or PSFT_LIST. If using the universal adapter described in Section 6.4, use UNIVERSAL_LIST).</td>
</tr>
<tr>
<td></td>
<td>- UCM_ADMIN_USER: Specifies the administrative Content Server user that executes the AF_GRANT_ACCESS service for the user logged into the business application.</td>
</tr>
<tr>
<td></td>
<td>- 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 Section 6.7.1.</td>
</tr>
<tr>
<td>PARAMETER_VALUE</td>
<td>Specifies the value of the parameter key.</td>
</tr>
</tbody>
</table>
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>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm. AfGrantAccessCommand</td>
<td>RIDC_CONNECTION_STR</td>
<td>idc://Content Server host name or IP address:Content Server RIDC port</td>
</tr>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm. AfGrantAccessCommand</td>
<td>UCM_CONNECTION_STR</td>
<td><a href="http://Content">http://Content</a> Server Host name or IP address: Content Server Port/cs/idcplg/_p/min/af/trigger-EBSProfile?IdcService=GET_SEARCH_RESULTS_FORCELOGIN&amp;ResultTemplate=EBS_LIST</td>
</tr>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm. AfGrantAccessCommand</td>
<td>UCM_ADMIN_USER</td>
<td>Content Server admin user</td>
</tr>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm. AfGrantAccessCommand</td>
<td>MA_CSF_KEY</td>
<td>MA_CSF_KEY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMMAND_NAMESPACE</th>
<th>CONFIGURATION_NAMESPACE</th>
<th>PARAMETER_KEY</th>
<th>PARAMETER_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm. AfGrantAccessCommand</td>
<td>RIDC_CONNECTION_STR</td>
<td>idc://Content Server host name or IP address:Content Server RIDC port</td>
</tr>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm. AfGrantAccessCommand</td>
<td>UCM_CONNECTION_STR</td>
<td><a href="http://Content">http://Content</a> Server Host name or IP address: Content Server Port/cs/idcplg/_p/min/af/trigger-PSFTProfile?IdcService=GET_SEARCH_RESULTS_FORCELOGIN&amp;ResultTemplate=PSFT_LIST</td>
</tr>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm. AfGrantAccessCommand</td>
<td>UCM_ADMIN_USER</td>
<td>Content Server admin user</td>
</tr>
<tr>
<td>UCM_Managed_Attachments</td>
<td>oracle.imaging.axf.commands.ucm. AfGrantAccessCommand</td>
<td>MA_CSF_KEY</td>
<td>MA_CSF_KEY</td>
</tr>
</tbody>
</table>

Table B–8 Example AXF_SOLUTION_PARAMETERS Table for Oracle E-Business Suite Managed Attachments Solution

Table B–9 Example AXF_SOLUTION_PARAMETERS Table for Oracle PeopleSoft Managed Attachments Solution

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

Each Oracle E-Business Suite form enabled for the AF integration requires an AXF Oracle E-Business Suite configuration that defines a Zoom Menu item with the label Managed Attachments and a set of parameters that include the Oracle E-Business Suite instance name, business object type, business object key(s), and user friendly description of the business object instance.

The diagram that follows displays the Oracle E-Business Suite Forms configuration tables used for the Managed Attachments solution and their relationships.
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.
B.2.1.1 Column Description

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMID</td>
<td>Specifies the primary key of the table.</td>
</tr>
<tr>
<td>FORMFUNCTION</td>
<td>Distinguishes each Oracle E-Business Suite Form based on the form’s functionality.</td>
</tr>
<tr>
<td>SOLUTIONENDPOINT</td>
<td>Specifies a URL to AXF. This value should start as https:// if SecureMode is on. See Section 2.4.2, “Securing Communications Through SSL (Oracle E-Business Suite).”</td>
</tr>
<tr>
<td>ENTITYNAME</td>
<td>Used by the attachment functionality as a unique name, which links attachments to the correct Forms.</td>
</tr>
</tbody>
</table>
| LOGENABLED         | Enables or disables the log for the specified form. See Section 2.5, “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. |

B.2.1.2 Example Implementation

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

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

Table B–11  Example AXF_CONFIGS Table

<table>
<thead>
<tr>
<th>FORMID</th>
<th>FORMFUNCTION</th>
<th>SOLUTIONENDPOINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AXF_MANAGED_ATTACHMENTS</td>
<td><a href="https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService">https://ApplicationServerName:Port/axf-ws/AxfSolutionMediatorService</a></td>
</tr>
</tbody>
</table>

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 Section 6.6.13.
B.2.2.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPNAME</td>
</tr>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Specifies properties to use. Properties include:</td>
</tr>
<tr>
<td>■ SecureMode: To enable SSL, set this property to ON, and set values for AXFWalletPath and AXFWalletKey properties.</td>
</tr>
<tr>
<td>■ AXFWalletPath: Certificate location (path).</td>
</tr>
<tr>
<td>■ AXFWalletKey: Specify the key for the AXF wallet password, to be retrieved from the Oracle E-Business Suite vault.</td>
</tr>
<tr>
<td>■ AXF_VERSION: Specify 1 for AXF 10g, or 2 for AXF 11g.</td>
</tr>
<tr>
<td>■ AXF_SOAP_POLICY: Specify the name of the SOAP policy to use. The currently supported policy is USER_NAME_TOKEN.</td>
</tr>
<tr>
<td>■ AXF_SOAP_SECURITY: Specify TRUE to enable SOAP security, as described in Section 2.4.1. This setting is required.</td>
</tr>
<tr>
<td>■ AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in Section 2.4.1.</td>
</tr>
<tr>
<td>■ AXF_PAPERCLIP: Set to TRUE to enable the Oracle E-Business Suite native attachments paperclip option, or FALSE (default) to disable it. See Section 6.6.13.</td>
</tr>
<tr>
<td>PROPVALUE</td>
</tr>
<tr>
<td>Specifies the property’s value.</td>
</tr>
</tbody>
</table>

B.2.2.2 Example Implementation

This example table shows the default properties values.

<table>
<thead>
<tr>
<th>PROPNAME</th>
<th>PROPVALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SecureMode</td>
<td>OFF</td>
</tr>
<tr>
<td>AXFWalletPath</td>
<td>file:walletpath</td>
</tr>
<tr>
<td>AXFWalletKey</td>
<td>AXFWalletKey</td>
</tr>
<tr>
<td>AXF_VERSION</td>
<td>2</td>
</tr>
<tr>
<td>AXF_SOAP_POLICY</td>
<td>USER_NAME_TOKEN</td>
</tr>
<tr>
<td>AXF_SOAP_SECURITY</td>
<td>TRUE</td>
</tr>
<tr>
<td>AXF_SOAP_USER</td>
<td>weblogic</td>
</tr>
<tr>
<td>AXF_PAPERCLIP</td>
<td>FALSE</td>
</tr>
</tbody>
</table>

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.
B.2.3.1 Column Description

Table B–14 Column Description for AXF_FND_MAP Table

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUNCTION_NAME</td>
<td>Defines the Oracle E-Business Suite Form based on its functionality.</td>
</tr>
<tr>
<td>FORM_NAME</td>
<td>Defines the name of the Oracle E-Business Suite form to enable.</td>
</tr>
<tr>
<td>BLOCK_NAME</td>
<td>Defines the data block on the form to enable.</td>
</tr>
<tr>
<td>ENTITY_NAME</td>
<td>Used by the attachment functionality as a unique name, which links attachments to the correct forms.</td>
</tr>
</tbody>
</table>

B.2.3.2 Example Implementation

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

Table B–15 Example Implementation for AXF_FND_MAP Table

<table>
<thead>
<tr>
<th>FUNCTION_NAME</th>
<th>FORM_NAME</th>
<th>BLOCK_NAME</th>
<th>ENTITY_NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP_APXINWKB</td>
<td>APXINWKB</td>
<td>INV_SUM_FOLDER</td>
<td>AP_INVOICES</td>
</tr>
</tbody>
</table>

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).

B.2.4.1 Column Description

Table B–16 Column Description for AXF_COMMANDS Table

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
<th>Nullable</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMID</td>
<td>Links to the AXF_CONFIGS Table (Oracle E-Business Suite Forms).</td>
<td>No</td>
</tr>
<tr>
<td>EVENTID</td>
<td>Primary key of the table.</td>
<td>Yes</td>
</tr>
<tr>
<td>EVENTNAME</td>
<td>Name of the Event command to invoke (ZOOM for this adapter).</td>
<td>Yes</td>
</tr>
<tr>
<td>DISPLAYMENU</td>
<td>Displays text of the menu for the command.</td>
<td>Yes</td>
</tr>
<tr>
<td>COMMANDNAMESPACE</td>
<td>Request command to pass to the back-end when a user selects the menu.</td>
<td>Yes</td>
</tr>
<tr>
<td>REQUIRESCONVERSATION</td>
<td>Indicates if the command requires a valid conversation or not. For this adapter, this value must be NO.</td>
<td>Yes</td>
</tr>
<tr>
<td>SORTBY</td>
<td>Order in which the menu is displayed.</td>
<td>Yes</td>
</tr>
<tr>
<td>SOLUTIONNAMESPACE</td>
<td>Name of the solution.</td>
<td>Yes</td>
</tr>
<tr>
<td>MENUTYPE</td>
<td>Specify the menu type to display to users in Oracle E-Business Suite. ZOOM displays a Zoom menu in the toolbar.</td>
<td>Yes</td>
</tr>
<tr>
<td>SPECIAL</td>
<td>Create new menu entries by entering a unique number for the Special type menu. (Not applicable for this adapter.)</td>
<td>Yes</td>
</tr>
<tr>
<td>RESPONSIBILITY</td>
<td>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.)</td>
<td>Yes</td>
</tr>
</tbody>
</table>
**B.2.4.2 Example Implementation**

The example AXF_COMMANDS table that follows displays fields for an AfGrantAccess command configuration for the Invoice Entry form.

Fields not shown: SPECIAL=(null), RESPONSIBILITY=(null)

### Table B–17 Example AXF_COMMANDS Table for Invoice Entry Form

<table>
<thead>
<tr>
<th>EVENT ID</th>
<th>FORM ID</th>
<th>EVENT NAME</th>
<th>DISPLAYMENU</th>
<th>COMMAND NAMESPACE</th>
<th>REQUIRESCOMMANDVERSION</th>
<th>SORT BY</th>
<th>SOLUTION NAMESPACE</th>
<th>MENU TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>1</td>
<td>ZOOM</td>
<td>Managed Attachments</td>
<td>UCM_Managed_Attachment</td>
<td>NO</td>
<td>3</td>
<td>UCM_Managed_Attachments</td>
<td>ZOOM</td>
</tr>
</tbody>
</table>

**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.

### B.2.5.1 Column Description

**Table B–18 Column Description for AXF_COMMAND_PARAMETERS Table**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARAMETERID</td>
<td>Defines a unique ID for the parameter.</td>
</tr>
<tr>
<td>EVENTID</td>
<td>Defines a unique ID for the event. Comes from the AXF_COMMANDS Table (Oracle E-Business Suite Forms).</td>
</tr>
<tr>
<td>PARAMETERNAME</td>
<td>The name of the parameter to pass, where:</td>
</tr>
<tr>
<td></td>
<td>■ 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.</td>
</tr>
<tr>
<td></td>
<td>■ extraParamName: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See Section 6.6.14, &quot;Passing Extra Metadata Values From a Business Application to Content Server.&quot;</td>
</tr>
<tr>
<td>DATASOURCENAME</td>
<td>Data Source for the parameter value. You can specify Data or Constant.</td>
</tr>
<tr>
<td>DATABLOCKNAME</td>
<td>Data Block of the Form from which the value is fetched</td>
</tr>
<tr>
<td>FIELDNAME</td>
<td>Field Name in the form from which the value is fetched.</td>
</tr>
<tr>
<td>CONSTANTVALUE</td>
<td>Must be set to a value that uniquely identifies the Oracle E-Business Suite instance.</td>
</tr>
</tbody>
</table>

### B.2.5.2 Example Implementation

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

**Table B–19 Example AXF_COMMAND_PARAMETERS Table**

<table>
<thead>
<tr>
<th>PARAMETER ID</th>
<th>EVENT ID</th>
<th>PARAMETER NAME</th>
<th>DATASOURCE NAME</th>
<th>DATABLOCKNAME</th>
<th>FIELDNAME</th>
<th>CONSTANT VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>application</td>
<td>CONSTANT</td>
<td>(null)</td>
<td>(null)</td>
<td>EBS_instanceA</td>
</tr>
</tbody>
</table>
The diagram that follows displays the Oracle E-Business Suite OAF configuration tables used for the Managed Attachments solution and their relationships.

### B.3 Oracle E-Business Suite OAF Tables For the Managed Attachments Solution

#### Oracle E-Business Suite OAF Table Description

<table>
<thead>
<tr>
<th>Table Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAF_AXF_CONFIGS Table (Oracle E-Business Suite OAF)</td>
<td>Enables the AXF solution on various Oracle E-Business Suite OAF pages.</td>
</tr>
<tr>
<td>OAF_AXF_PROPERTIES Table (Oracle E-Business Suite OAF)</td>
<td>Defines properties for AXF integration for Oracle E-Business Suite.</td>
</tr>
<tr>
<td>OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF)</td>
<td>Describes the actions to take based on user activity.</td>
</tr>
<tr>
<td>OAF_AXF_CMD_PARAMS Table (Oracle E-Business Suite OAF)</td>
<td>Defines the information sent for the AfGrantAccess command.</td>
</tr>
</tbody>
</table>

#### 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.
B.3.1.1 Column Description

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CONFIG_ID</td>
<td>Specifies the primary key of the table.</td>
</tr>
<tr>
<td>AXF_OAF_PAGE</td>
<td>Specifies the full path name of the Oracle E-Business Suite OAF page.</td>
</tr>
<tr>
<td>AXF_END_POINT</td>
<td>Specifies a URL to the AXF endpoint to which to connect. This value should</td>
</tr>
<tr>
<td></td>
<td>start as https:// if SecureMode is on. See Section 2.4.2, &quot;Securing</td>
</tr>
<tr>
<td></td>
<td>Communications Through SSL (Oracle E-Business Suite).&quot;</td>
</tr>
<tr>
<td>AXF_VERSION</td>
<td>Specifies the AXF version of the connection, where 1 indicates AXF 10g, and</td>
</tr>
<tr>
<td></td>
<td>2 indicates AXF 11g.</td>
</tr>
</tbody>
</table>

B.3.1.2 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>
<thead>
<tr>
<th>AXF_CONFIG_ID</th>
<th>AXF_OAF_PAGE</th>
<th>AXF_END_POINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>/oracle/apps/icx/por/reqmgmt/webui/ReqDetailsPG</td>
<td><a href="http://ImagingServerHostname1:Port1/axf-ws/AxfSolutionMediatorService">http://ImagingServerHostname1:Port1/axf-ws/AxfSolutionMediatorService</a></td>
</tr>
<tr>
<td>8</td>
<td>/oracle/apps/pa/project/webui/ProjAttachmentPG</td>
<td><a href="http://ImagingServerHostname1:Port1/axf-ws/AxfSolutionMediatorService">http://ImagingServerHostname1:Port1/axf-ws/AxfSolutionMediatorService</a></td>
</tr>
</tbody>
</table>

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.
B.3.2.1 Column Description

Table B–22  Column Description for OAF_AXF_PROPERTIES Table (Oracle E-Business Suite)

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPNAME</td>
<td>Specifies properties to use. Properties include:</td>
</tr>
<tr>
<td></td>
<td>■ SecureMode: To enable SSL, set this property to ON, and set values for AXFWalletPath and AXFWalletKey properties.</td>
</tr>
<tr>
<td></td>
<td>■ AXFWalletPath: Certificate location (path).</td>
</tr>
<tr>
<td></td>
<td>■ AXFWalletKey: Specify the key for the AXF wallet password, to be retrieved from the Oracle E-Business Suite vault.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_SOAP_POLICY: Specify the name of the SOAP policy to use. The currently supported policy is USER_NAME_TOKEN.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_SOAP_SECURITY: Specify TRUE to enable SOAP security, as described in Section 2.4.1. This setting is required.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_SOAP_USER: Specify the SOAP userid used in the SOAP header for authentication, as described in Section 2.4.1.</td>
</tr>
<tr>
<td></td>
<td>■ AXF_OAF_REDIRECT_PAGE_URL: Specifies the URL to the custom intermediate OAF page. This URL is configured in Section 2.3.1. It begins with https:// if SSL is configured on the Oracle E-Business Suite instance.</td>
</tr>
<tr>
<td>PROPVALUE</td>
<td>Specifies the property’s value.</td>
</tr>
</tbody>
</table>

B.3.2.2 Example Implementation

This example table shows the default properties values.

Table B–23  Example OAF_AXF_PROPERTIES Table

<table>
<thead>
<tr>
<th>PROPNAME</th>
<th>PROPVALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SecureMode</td>
<td>OFF</td>
</tr>
<tr>
<td>AXFWalletPath</td>
<td>file:walletpath</td>
</tr>
<tr>
<td>AXFWalletKey</td>
<td>AXFWalletKey</td>
</tr>
<tr>
<td>AXF_SOAP_POLICY</td>
<td>USER_NAME_TOKEN</td>
</tr>
<tr>
<td>AXF_SOAP_SECURITY</td>
<td>TRUE</td>
</tr>
<tr>
<td>AXF_SOAP_USER</td>
<td>weblogic</td>
</tr>
<tr>
<td>AXF_OAF_REDIRECT_PAGE_URL</td>
<td><a href="http://EBS">http://EBS</a> Host : EBS Port/OA_HTML/OA.jsp?page=/oracle/apps/ak/ucm/axf/webui/RedirectToAxfPG</td>
</tr>
</tbody>
</table>

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 Section 2.3).
B.3.3.1 Column Description

<table>
<thead>
<tr>
<th>Column Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CMDS_ID</td>
<td>Specifies the primary key of the table, used to identify the unique command.</td>
</tr>
<tr>
<td>AXF_CONFIG_ID</td>
<td>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.</td>
</tr>
</tbody>
</table>
| 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.  |

B.3.3.2 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 Section 2.3.3, "Configuring Other Services on OAF Pages (Optional)."

Field not shown: AXF_REQ_CONV=N

<table>
<thead>
<tr>
<th>AXF_CMDS_ID</th>
<th>AXF_CONFIG_ID</th>
<th>AXF_EVENT_ID</th>
<th>AXF_SOL_NAMESPC</th>
<th>AXF_CMD_NAMESPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>MAButton</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>IPM_BUTTON</td>
<td>SupplierMaintenance</td>
<td>StartSupplierMaintenance</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>MAButton</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>MAButton</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>MAButton</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>MAButton</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>MAButton</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>MAButton</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
</tr>
</tbody>
</table>

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.
B.3.4.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CMD_PARAMS_ID</td>
<td>Specifies the primary key of the table.</td>
</tr>
<tr>
<td>AXF_CMDS_ID</td>
<td>Specifies the foreign key to the OAF_AXF_COMMANDS Table (Oracle E-Business Suite OAF), which associates the unique parameter with a specific command.</td>
</tr>
<tr>
<td>AXF_PARAM_NAME</td>
<td>Defines the parameter name, where:</td>
</tr>
<tr>
<td></td>
<td>■ application: Specifies the business application, as defined in the AFObjects Table.</td>
</tr>
<tr>
<td></td>
<td>■ businessObjectType: Specifies the business application’s object type, as defined in the AFObjects Table.</td>
</tr>
<tr>
<td></td>
<td>■ businessObjectKey: Specifies the business application’s object key, as defined in the AFObjects Table.</td>
</tr>
<tr>
<td></td>
<td>■ businessObjectValue1...5: Represents the primary key value for the document.</td>
</tr>
<tr>
<td></td>
<td>■ labelValue1...5: Labels displayed on Managed Attachments user interface for displaying key values for the attachments integration.</td>
</tr>
<tr>
<td></td>
<td>■ extraParamName: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See Section 6.6.14, &quot;Passing Extra Metadata Values From a Business Application to Content Server.”</td>
</tr>
<tr>
<td>AXF_DATASOURCE</td>
<td>Specifies where the parameter value is retrieved.</td>
</tr>
<tr>
<td></td>
<td>■ DATA: Retrieves the value in Oracle PeopleSoft defined by the AXF_RECORD_NAME and AXF_FIELD_NAME fields.</td>
</tr>
<tr>
<td></td>
<td>■ CONSTANT: Uses the value defined in the AXF_CONSTANT_VALUE.</td>
</tr>
<tr>
<td>AXF_VIEW_OBJ_NAME</td>
<td>Specifies the OAF ViewObject name, which is used to obtain the command parameter values at runtime. See Section 6.2.3.2, &quot;Identifying Key Values for Your OAF Pages.”</td>
</tr>
<tr>
<td>AXF_ATTRIBUTE_NAME</td>
<td>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.</td>
</tr>
<tr>
<td>AXF_CONSTANT_VALUE</td>
<td>Used as the constant value when AXF_DATASOURCE is set to CONSTANT.</td>
</tr>
</tbody>
</table>

B.3.4.2 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 Section 6.2.3.2.
<table>
<thead>
<tr>
<th>AXF_CMD_PARAMS_ID</th>
<th>AXF_CMDS_ID</th>
<th>AXF PARAM NAME</th>
<th>AXF_DATASOURCE</th>
<th>AXF_VIEW_OBJ_NAME</th>
<th>AXF_ATTRIBUTE_NAME</th>
<th>AXF_CONSTANT_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>EBS_instanceA</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td></td>
<td>REQ_HEADERS</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td>REQUISITION_HEADER_ID</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>ReqHeaderVO</td>
<td>ReqNum</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>labelValue1</td>
<td>DATA</td>
<td>ReqHeaderVO</td>
<td>PreparerName</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>labelValue2</td>
<td>DATA</td>
<td>ReqHeaderVO</td>
<td>ReqNum</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>EBS_instanceA</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td></td>
<td>PO_HEADERS MERGE_V</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td>PO_HEADER_ID</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>POHeaderMergeVO</td>
<td>POHeaderId</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>EBS_instanceA</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td></td>
<td>PO_HEADERS</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td>PO_HEADER_ID</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>4</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>PosViewHeadersVO</td>
<td>PO_HEADER_ID</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>EBS_instanceA</td>
</tr>
<tr>
<td>16</td>
<td>5</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td></td>
<td>PO_VENDORS</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>5</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td>VENDOR_ID</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>5</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>SupplierVO</td>
<td>VendorID</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>6</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>EBS_instanceA</td>
</tr>
<tr>
<td>20</td>
<td>6</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td></td>
<td>PON AUCTION_HEADERS_ALL</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>6</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td>AUCTION_HEADER_ID</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>6</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>AuctionHeadersAllVO</td>
<td>AuctionHeaderId</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>7</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>EBS_instanceA</td>
</tr>
<tr>
<td>24</td>
<td>7</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td></td>
<td>PON AUCTION ITEM PRICES ALL</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>7</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td>AUCTION_HEADER_ID</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>7</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>ActionItemPricesAllVO</td>
<td>AuctionHeaderId</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>7</td>
<td>businessObjectKey2</td>
<td>CONSTANT</td>
<td></td>
<td>LINE_NUMBER</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>7</td>
<td>businessObjectValue2</td>
<td>DATA</td>
<td>ActionItemPricesAllVO</td>
<td>LineNumbers</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>8</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>EBS_instanceA</td>
</tr>
<tr>
<td>30</td>
<td>8</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td></td>
<td>PA_PROJECTS</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>8</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td>PROJECT_ID</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>8</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>ProjAttachmentsVO</td>
<td>PROJECT_ID</td>
<td></td>
</tr>
</tbody>
</table>
### B.4 Oracle PeopleSoft Tables For the Managed Attachments Solution

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

- **Section B.4.1, "PS_AXF_CONFIG Table"
- **Section B.4.2, "PS_AXF_COMMANDS Table"
- **Section B.4.3, "PS_AXF_CMD_PARAMS Table"
- **Section B.4.4, "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.
B.4.1.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CONFIG_ID</td>
<td>Specifies the primary key of the table.</td>
</tr>
<tr>
<td>AXF_COMPONENT_NAME</td>
<td>Specifies the name of the Oracle PeopleSoft component being enabled.</td>
</tr>
<tr>
<td>AXF_CONNECT_NAME</td>
<td>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.</td>
</tr>
<tr>
<td>AXF_VERSION</td>
<td>Specifies the AXF version of the connection. This value should be set to 11g.</td>
</tr>
</tbody>
</table>

B.4.1.2 Example Implementation

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

<table>
<thead>
<tr>
<th>AXF_CONFIG_ID</th>
<th>AXF_COMPONENT_NAME</th>
<th>AXF_CONNECT_NAME</th>
<th>AXF_VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>WM_WO</td>
<td>AXF_EXECUTE</td>
<td>11g</td>
</tr>
<tr>
<td>102</td>
<td>CA_HDR_PNG</td>
<td>AXF_EXECUTE</td>
<td>11g</td>
</tr>
<tr>
<td>103</td>
<td>REQUISITIONS</td>
<td>AXF_EXECUTE</td>
<td>11g</td>
</tr>
</tbody>
</table>

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.

B.4.2.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CMDS_ID</td>
<td>Specifies the primary key of the table, used to identify the unique command.</td>
</tr>
<tr>
<td>AXF_CONFIG_ID</td>
<td>Specifies the foreign key to the PS_AXF_CONFIG Table, which associates this unique command with a particular page and component.</td>
</tr>
<tr>
<td>AXF_EVENT_NAME</td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>- AXF_BUTTON_1, ..., AXF_BUTTON_5</td>
</tr>
<tr>
<td></td>
<td>- AXF_LINK_1, ..., AXF_LINK5</td>
</tr>
<tr>
<td></td>
<td>- AXF_COMBO_1, ..., AXF_COMBO_5</td>
</tr>
<tr>
<td></td>
<td>- AXF_PRE_SAVE_SBP</td>
</tr>
<tr>
<td></td>
<td>- AXF_POST_SAVE_SBP</td>
</tr>
</tbody>
</table>
**B.4.2.2 Example Implementation**

This example shows the UCM_Managed_Attachments command added as a link to an Oracle PeopleSoft page.

You must specify an Oracle PeopleSoft Role in the AXF_PSFT_ROLE field to give permissions to use the commands. If a person does not have proper permissions to use the commands, the commands do not display. If the commands display but do not function, this indicates that the commands are not configured properly.

**Table B–30 (Cont.) Column Description for PS_AXF_COMMANDS Table**

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_SELECT_LABEL</td>
<td>Represents the label that for display if using a drop-down component (for example, AXF_COMBO_1).</td>
</tr>
<tr>
<td>AXF_DISPLAY_NAME</td>
<td>Defines the name of the button or link to display on the Oracle PeopleSoft screen.</td>
</tr>
<tr>
<td>AXF_SOL_NAMESPC</td>
<td>Identifies the solution namespace for the command to execute.</td>
</tr>
<tr>
<td>AXF_CMD_NAMESPC</td>
<td>Identifies the command namespace for the command to execute.</td>
</tr>
<tr>
<td>AXF_PSFT_ROLE</td>
<td>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')</td>
</tr>
<tr>
<td>AXF_SORT_ORDER</td>
<td>Specifies the order of items displayed in a selection field. Sort order applies to selection fields only.</td>
</tr>
<tr>
<td>AXF_REQ_CONV</td>
<td>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.</td>
</tr>
</tbody>
</table>

**Table B–31 Example PS_AXF_COMMANDS Table**

<table>
<thead>
<tr>
<th>AXF_CMDS_ID</th>
<th>AXF_CONFIG_ID</th>
<th>AXF_EVENT_NAME</th>
<th>AXF_SELECT_LABEL</th>
<th>AXF_DISPLAY_NAME</th>
<th>AXF_SOL_NAMESPC</th>
<th>AXF_CMD_NAMESPC</th>
<th>AXF_PSFT_ROLE</th>
<th>AXF_SORT_ORDER</th>
<th>AXF_REQ_CONV</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>101</td>
<td>AXF_LINK_1</td>
<td>Managed Attachments</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
<td>'Employee'</td>
<td>1</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>102</td>
<td>102</td>
<td>AXF_LINK_1</td>
<td>Managed Attachments</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
<td>'Employee'</td>
<td>1</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>103</td>
<td>103</td>
<td>AXF_LINK_1</td>
<td>Managed Attachments</td>
<td>UCM_Managed_Attachments</td>
<td>UCM_Managed_Attachments</td>
<td>'Employee'</td>
<td>1</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

**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 Section 6.6.14, “Passing Extra Metadata Values From a Business Application to Content Server.”
B.4.3.1 Column Description

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_CMD_PARAM_ID</td>
<td>Specifies the primary key of the table.</td>
</tr>
<tr>
<td>AXF_CMD_ID</td>
<td>Specifies the foreign key to the PS_AXF_COMMANDS Table, which associates the unique parameter with a specific command.</td>
</tr>
<tr>
<td>AXF_PARAM_NAME</td>
<td>Defines the parameter name, where:</td>
</tr>
<tr>
<td></td>
<td>■ application: Specifies the business application, as defined in AFOBJECTS Table.</td>
</tr>
<tr>
<td></td>
<td>■ businessObjectType: Specifies the business application’s object type, as defined in Section 3.3.</td>
</tr>
<tr>
<td></td>
<td>■ businessObjectKey1...5: Represents the primary key name for the document.</td>
</tr>
<tr>
<td></td>
<td>■ businessObjectValue1...5: Represents the primary key value for the document.</td>
</tr>
<tr>
<td></td>
<td>■ labelValue1...5: Labels displayed on Managed Attachments user interface for displaying key values for the attachments integration.</td>
</tr>
<tr>
<td></td>
<td>■ extraParamName: Extra parameter to be passed as metadata from the business application to Content Server in check-in or scan forms. See Section 6.6.14, “Passing Extra Metadata Values From a Business Application to Content Server.”</td>
</tr>
<tr>
<td>AXF_DATASOURCE</td>
<td>Specifies where the parameter value is retrieved.</td>
</tr>
<tr>
<td></td>
<td>■ DATA: Retrieves the value in Oracle PeopleSoft defined by the AXF_RECORD_NAME and AXF_FIELD_NAME fields.</td>
</tr>
<tr>
<td></td>
<td>■ CONSTANT: Uses the value defined in the AXF_CONSTANT_VALUE field.</td>
</tr>
<tr>
<td>AXF_RECORD_NAME</td>
<td>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.</td>
</tr>
<tr>
<td>AXF_FIELD_NAME</td>
<td>Used as the constant value when AXF_DATASOURCE is set to DATA.</td>
</tr>
<tr>
<td>AXF_CONSTANT_VALUE</td>
<td>Used as the constant value when AXF_DATASOURCE is set to CONSTANT.</td>
</tr>
</tbody>
</table>

B.4.3.2 Example Implementation

This example shows the information sent for the UCM_Managed_Attachments command, including its application and business object type.

■ The labelValue entries are configured to display key labels/values for the attachment. For example, the labelValues configuration in this table might display the following for work orders on the Managed Attachments screen:

[Business Unit], [US001], [Work Order], [123456]
Use the PS_AXF_PROPERTIES table to define properties for AXF integration with Oracle PeopleSoft. See Section 6.6.15, "Resizing Oracle PeopleSoft Popup Solution Windows."

<table>
<thead>
<tr>
<th>AXF_CMD_PARAM_ID</th>
<th>AXF_CMD_ID</th>
<th>AXF PARAM_NAME</th>
<th>AXF DATASOURCE</th>
<th>AXF_RECORD_NAME</th>
<th>AXF FIELD_NAME</th>
<th>AXF_CONSTANT_VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>101</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>PSFT_INSTANCE_A</td>
</tr>
<tr>
<td>102</td>
<td>101</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td>WM_WO_HDR</td>
<td></td>
<td>BUSINESS_UNIT</td>
</tr>
<tr>
<td>103</td>
<td>101</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>WM_WO_HDR</td>
</tr>
<tr>
<td>104</td>
<td>101</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>WM_WO_HDR</td>
<td>BUSINESS_UNIT</td>
<td></td>
</tr>
<tr>
<td>105</td>
<td>101</td>
<td>businessObjectKey2</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>WC_ID</td>
</tr>
<tr>
<td>106</td>
<td>101</td>
<td>businessObjectValue2</td>
<td>DATA</td>
<td>WM_WO_HDR</td>
<td>BUSINESS_UNIT</td>
<td></td>
</tr>
<tr>
<td>107</td>
<td>101</td>
<td>labelValue1</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>Business Unit</td>
</tr>
<tr>
<td>108</td>
<td>101</td>
<td>labelValue2</td>
<td>DATA</td>
<td>WM_WO_HDR</td>
<td>BUSINESS_UNIT</td>
<td></td>
</tr>
<tr>
<td>109</td>
<td>101</td>
<td>labelValue3</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>Work Order</td>
</tr>
<tr>
<td>110</td>
<td>101</td>
<td>labelValue4</td>
<td>DATA</td>
<td>WM_WO_HDR</td>
<td>WC_ID</td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>102</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>PSFT_INSTANCE_A</td>
</tr>
<tr>
<td>112</td>
<td>102</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td>CA_CONTR_HDR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>113</td>
<td>102</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>BUSINESS_UNIT</td>
</tr>
<tr>
<td>114</td>
<td>102</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>CA_CONTR_HDR</td>
<td>BUSINESS_UNIT</td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>102</td>
<td>businessObjectKey2</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>CONTRACT_NUM</td>
</tr>
<tr>
<td>116</td>
<td>102</td>
<td>businessObjectValue2</td>
<td>DATA</td>
<td>CA_CONTR_HDR</td>
<td>BUSINESS_UNIT</td>
<td></td>
</tr>
<tr>
<td>117</td>
<td>102</td>
<td>labelValue1</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>Business Unit</td>
</tr>
<tr>
<td>118</td>
<td>102</td>
<td>labelValue2</td>
<td>DATA</td>
<td>CA_CONTR_HDR</td>
<td>BUSINESS_UNIT</td>
<td></td>
</tr>
<tr>
<td>119</td>
<td>102</td>
<td>labelValue3</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>Contract Number</td>
</tr>
<tr>
<td>120</td>
<td>102</td>
<td>labelValue4</td>
<td>DATA</td>
<td>CA_CONTR_HDR</td>
<td>CONTRACT_NUM</td>
<td></td>
</tr>
<tr>
<td>121</td>
<td>103</td>
<td>application</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>PSFT_INSTANCE_A</td>
</tr>
<tr>
<td>122</td>
<td>103</td>
<td>businessObjectType</td>
<td>CONSTANT</td>
<td>REQ_HDR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>103</td>
<td>businessObjectKey1</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>BUSINESS_UNIT</td>
</tr>
<tr>
<td>124</td>
<td>103</td>
<td>businessObjectValue1</td>
<td>DATA</td>
<td>REQ_HDR</td>
<td>BUSINESS_UNIT</td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>103</td>
<td>businessObjectKey2</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>REQ_ID</td>
</tr>
<tr>
<td>126</td>
<td>103</td>
<td>businessObjectValue2</td>
<td>DATA</td>
<td>REQ_HDR</td>
<td>REQ_ID</td>
<td></td>
</tr>
<tr>
<td>127</td>
<td>103</td>
<td>labelValue1</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>Business Unit</td>
</tr>
<tr>
<td>128</td>
<td>103</td>
<td>labelValue2</td>
<td>DATA</td>
<td>REQ_HDR</td>
<td>BUSINESS_UNIT</td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>103</td>
<td>labelValue3</td>
<td>CONSTANT</td>
<td></td>
<td></td>
<td>Requisition</td>
</tr>
<tr>
<td>130</td>
<td>103</td>
<td>labelValue4</td>
<td>DATA</td>
<td>REQ_HDR</td>
<td>REQ_ID</td>
<td></td>
</tr>
</tbody>
</table>
B.4.4.1 Column Description

Table B–34  Column Description for PS_AXF_PROPERTIES Table

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AXF_PROPNAME</td>
<td>Specifies properties to use. Properties include:</td>
</tr>
<tr>
<td></td>
<td>■ WINDOW_HEIGHT: Specify the popup window’s height in pixels. (This refers</td>
</tr>
<tr>
<td></td>
<td>to any popup window that displays as part of the solution.)</td>
</tr>
<tr>
<td></td>
<td>■ WINDOW_WIDTH: Specify the popup window’s width in pixels.</td>
</tr>
<tr>
<td>AXF_PROPVALUE</td>
<td>Specifies the property’s value.</td>
</tr>
</tbody>
</table>

B.4.4.2 Example Implementation

This example table shows the default properties values.

Table B–35  Example PS_AXF_PROPERTIES Table

<table>
<thead>
<tr>
<th>AXF_PROPNAME</th>
<th>AXF_PROPVALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINDOW_HEIGHT</td>
<td>600</td>
</tr>
<tr>
<td>WINDOW_WIDTH</td>
<td>800</td>
</tr>
</tbody>
</table>

B.5 Content Server Tables For the Managed Attachments Solution

The adapter utilizes the following additional database tables:

■ Section B.5.1, "AFGrants Table"
■ Section B.5.2, "AFObjects Table"
■ Section B.5.3, "AFRelationshipAttributes Table"
■ Section B.5.4, "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 screen.

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.

B.5.1.1 Column Description

Table B–36  Column Description for AFGrants Table

<table>
<thead>
<tr>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>dUserName</td>
<td>Stores the name of the user.</td>
</tr>
<tr>
<td>dAFApplication</td>
<td>Stores the business application’s instance name (for example, PSFT_Instance1).</td>
</tr>
<tr>
<td>dAFBusinessObject</td>
<td>Stores the business application’s object</td>
</tr>
<tr>
<td>dAFBusinessObjectType</td>
<td>Stores the business application’s object type</td>
</tr>
</tbody>
</table>
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.

B.5.2.1 Column Description

<table>
<thead>
<tr>
<th>Table B–37 Column Description for AFObjects Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Columns</strong></td>
</tr>
<tr>
<td>dAFID</td>
</tr>
<tr>
<td>dAFApplication</td>
</tr>
<tr>
<td>dAFBusinessObjectType</td>
</tr>
<tr>
<td>dAFBusinessObject</td>
</tr>
<tr>
<td>dDocName</td>
</tr>
<tr>
<td>DID</td>
</tr>
</tbody>
</table>

B.5.3 AFRelationshipAttributes Table

This table stores relationship attributes associated with an attachment. For more information, see Section 6.6.8, "Configuring Attachment Relationship Attributes." Depending on the configuration of relationship attributes, a document can have zero or more relationship attributes.

B.5.3.1 Column Description

<table>
<thead>
<tr>
<th>Table B–38 Column Description for AFRelationshipAttributes Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Columns</strong></td>
</tr>
<tr>
<td>dAFID</td>
</tr>
</tbody>
</table>
**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.

**B.5.4.1 Column Description**

<table>
<thead>
<tr>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>attribute</td>
<td>Stores the relationship attribute name.</td>
</tr>
<tr>
<td>value</td>
<td>Stores the value of the relationship attribute the user selected.</td>
</tr>
</tbody>
</table>

**Table B–38 (Cont.) Column Description for AFRelationshipAttributes Table**

<table>
<thead>
<tr>
<th>Columns</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>dAFApplication</td>
<td>Stores the business application’s instance name.</td>
</tr>
<tr>
<td>dAFBusinessObjectType</td>
<td>Stores the business application’s object type.</td>
</tr>
<tr>
<td>dAFBusinessObject</td>
<td>Stores the business object’s ID in the business application instance.</td>
</tr>
<tr>
<td>PK1_Key ... PK5_Key</td>
<td>Stores up to five key/value combinations.</td>
</tr>
<tr>
<td>PK1_Value ... PK5_Value</td>
<td>Stores up to five key/value combinations.</td>
</tr>
</tbody>
</table>
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