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Installation and Upgrade Guide for Oracle Application Integration
Architecture Foundation Pack

11g Release 1 (11.1.1.4.0)

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Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack, 11g Release 1 (11.1.1.4.0)

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Preface

This guide provides an overview of the Oracle Application Integration Architecture (AIA) Foundation Pack installation and upgrade processes.

Audience

This document is intended for users installing Oracle Application Integration Architecture (AIA) Foundation Pack 11g Release 1 (11.1.1.4.0). It is also intended for users upgrading from Foundation Pack 11g Release 1 (11.1.1.2.0) to Foundation Pack 11g Release 1 (11.1.1.4.0).

Using This Guide

Follow the steps mentioned while installing Oracle AIA for a faster and smoother installation.

1. Access the latest *Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)* on Oracle Technology Network at <http://www.oracle.com/technetwork/index.html>.
2. Review the release notes for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0) available on Oracle Technology Network at <http://www.oracle.com/technetwork/middleware/docs/aiaoarelnotes-196861.html>.
3. Check hardware requirements.
4. Fulfill software requirements.
5. Complete the Installer Interview section for Foundation Pack.
6. Fulfill pre-installation configurations.
7. Install Foundation Pack.
8. Verify installation.
9. Install Reference Process Models.

If you are migrating from Foundation Pack 2.4 or 2.5, see *Oracle Fusion Middleware Migration Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)*.

Oracle AIA Guides

- *Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)*
- *Oracle Fusion Middleware Concepts and Technologies Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)*
- *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)*
- *Oracle Fusion Middleware Infrastructure Components and Utilities User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)*
- *Oracle Fusion Middleware Reference Process Models User's Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)*
- *Oracle Fusion Middleware Migration Guide for Oracle Application Integration Architecture 11g Release 1 (11.1.1.4.0)*
- *Oracle Fusion Middleware Product-to-Guide Index for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)*

Additional Resources

The following resources are also available:

Resource	Location
Release Notes	Oracle Technology Network: http://www.oracle.com/technetwork/
Documentation updates	Oracle Technology Network: http://www.oracle.com/technetwork/

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Conventions

The following text conventions are used in this document:

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

Understanding the Oracle AIA Foundation Pack Installation Process

This chapter provides an overview of Oracle AIA Foundation Pack installation process. This chapter includes the following sections:

- Section 1.1, "Introduction to AIA Foundation Pack Installer and Installation"
- Section 1.2, "Software Requirements"
- Section 1.3, "Hardware Requirements"
- Section 1.4, "Installation and Deployment Topologies"

Note: Ensure that you access the latest *Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)* on Oracle Technology Network at <http://www.oracle.com/technetwork/index.html>.

Ensure that you review the release notes for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0) available on Oracle Technology Network at <http://www.oracle.com/technetwork/middleware/docs/aisoarelnotes-196861.html>.

1.1 Introduction to AIA Foundation Pack Installer and Installation

AIA Foundation Pack Installer is built on Oracle Universal Installer and enables you to install products included in AIA.

Foundation Pack provides:

- Standard business data object/service definitions: Enterprise Business Objects (EBOs), and Enterprise Business Messages (EBMs).
- Core Infrastructure components that include the Composite Application Validation System (CAVS), Project Lifecycle Workbench, Error Handling and Logging Framework.
- Oracle's best-practice service-oriented architecture (SOA) programming model and the AIA reference architecture, which are based on a profound service-oriented foundation running on Oracle's best-in-class Fusion Middleware.

For more information about core infrastructure components, see *Oracle Fusion Middleware Infrastructure Components and Utilities User's Guide for Oracle Application Integration Architecture Foundation Pack*.

AIA Installer is platform independent. For complete certification information on Foundation Pack on each platform information, see <http://www.oracle.com/technetwork/middleware/foundation-pack/aia-11gr1-certification-matrix-171745.xls>

1.2 Software Requirements

This section details the software requirements for Foundation Pack.

1. Oracle Database and Oracle Fusion Middleware.

For complete Oracle Database and Oracle Fusion Middleware certification information for Foundation Pack on each platform, see http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html

2. Oracle Enterprise Repository 11g R1 (optional).

Note: OER is an optional component for AIA Foundation Pack and/or Process Integration Packs. You can install and use AIA products without OER. If you want to use OER to obtain visibility to objects, services, composites, and so forth throughout the SOA lifecycle, you need to purchase a Full Use License (FUL) of OER.

3. Oracle Service Registry (OSR) 11.1.1.4.0 (optional)

Note: OSR is an optional component for AIA Foundation Pack and/or Process Integration Packs. You can install and use AIA products without OSR. If you want to use OSR to manage only AIA objects and services at run time, a Restricted Use License (RUL) of OSR is included. The RUL allows you to view or edit objects and services included with AIA products.

If you want to use OSR to manage other content than standard out-of-the-box AIA artifacts, you need to purchase a Full Use License (FUL) of OSR. For license details on OSR see [Licenses](#)

4. JRE (only for installation purpose). Download the version that is suitable for the operating system on which you are installing AIA Foundation Pack.

Interim Patch Process

Any interim patches that you receive for AIA can be applied using Oracle's interim patch installer, OPatch. OPatch tool is available under AIA_HOME/OPatch. Follow the readme with your AIA patch for the exact steps

1.3 Hardware Requirements

- To install and deploy the AIA Foundation Pack 11g Release 1 (11.1.1.4.0) you need at least 2 GB of space.
- On the server where AIA Foundation Pack 11g Release 1 (11.1.1.4.0) is being deployed you require of 4 GB of the available memory.

1.4 Installation and Deployment Topologies

There are several installation and deployment topologies possible using AIA Foundation Pack Installer. Choose the installation that best suits your need. Refer to the whitepaper *AIA 11gR1 Installation and Deployment – Flexibilities, Topologies, Architecture and Tools* on

<http://www.oracle.com/technetwork/testcontent/aia-11gr1-installation-and-deployme-130315.pdf> for more details.

Preparing for Foundation Pack Installation

This chapter provides an overview of the Foundation Pack screens in AIA Foundation Pack Installer and discusses how to complete pre-installation configurations. This chapter includes the following sections:

- [Section 2.1, "Collecting Field Value Information for Installation and Deployment of Foundation Pack"](#)
- [Section 2.2, "Performing Pre-Installation Configurations"](#)
- [Section 2.3, "Installation Process"](#)

Note: Ensure that you access the latest *Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)* on Oracle Technology Network at <http://www.oracle.com/technetwork/index.html>.

Ensure that you review the release notes for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0) available on Oracle Technology Network at <http://www.oracle.com/technetwork/middleware/docs/aiasoarelnotes-196861.html>.

2.1 Collecting Field Value Information for Installation and Deployment of Foundation Pack

The AIA Foundation Pack Installer screens prompt you to enter the data required for successful installation and deployment of Foundation Pack. Complete this section, print it and keep it ready when you run AIA Foundation Pack Installer. This enables faster and error free installation.

2.1.1 Installation Location Screen

On this screen you set the home directory for installation. [Table 2-1](#) lists the fields located on the **Installation Location screen**.

Table 2–1 Fields in Installation Location Screen

Field	Description
AIA Home	This is the logical name given to the current AIA Installation under the Oracle Inventory. Do not include spaces in the name and do not include any special characters apart from underscore(_). Example: AIAFP. AIA Home directory name is _____
AIA Home Path	This is the full file path where the AIA Foundation Pack Installer installs the Foundation Pack product files. Select an empty directory location. AIA Home Path is _____
AIA Instance Name	If you are doing multiple deployments of AIA Foundation Pack for the same installation, AIA Instance Name helps you identify these different AIA Foundation Pack deployments. If you are installing and deploying Foundation Pack on this server for the first time, provide a logical name that can identify your deployment. The name given can be up to 10 characters in length with no spaces. Underscore (_) is the only allowed special character. Example ORDER2CASH. AIA Instance Name is _____
Java Home	This is the path of Java home. This can be the JDK location/JRockit location delivered with Oracle Fusion Middleware in the Middleware Home of your FMW Installation. Java home is _____
Complete Installation	If you choose Complete Installation , the Installer installs the selected products at the specified directory.
Copy AIA Software Only	If you choose Copy AIA Software Only , the Installer copies the complete AIA software to the specified directory. You must manually complete the installation following tasks described in Chapter 4, "Installing and Deploying using Manual Steps" .

Note: Do not use existing home directories if you want to reinstall Foundation Pack. Uninstall Foundation Pack using instructions provided in [Chapter 7, "Uninstalling Oracle AIA"](#) and then install using instructions provided in the respective installation chapters.

2.1.2 SOA Server Details Screen

All artifacts associated with the Foundation Pack infrastructure components are deployed to the SOA Suite server. This screen contains the fields listed in [Table 2–2](#).

Table 2–2 Fields in SOA Server Details Screen

Field	Description
Admin Host Name	This is where the admin server resides. This can be a remote server or the same machine where the installer is launched. Example: server1.company.com. The Admin Host Name is _____
Admin Port	This is the port number on which Weblogic Admin server is started. To find this value contact WebLogic administrator. Example: 7001. The Admin Port is _____

Table 2–2 (Cont.) Fields in SOA Server Details Screen

Field	Description
Domain Name	<p>This is WebLogic server domain corresponding to the Admin Server. Example: domain1</p> <p>The Domain Name is _____</p>
Admin User	<p>This value is the WebLogic admin username. To find this value contact your WebLogic administrator.</p> <p>The Admin User is _____</p>
Admin Password	<p>This value is the WebLogic admin password. To find this value contact your WebLogic administrator.</p> <p>The Admin Password is _____</p>
Managed Server	<p>Once you enter the Admin Hostname, Admin Port, Domain Name, Admin Username and Admin Password, this field gets populated with managed servers for the domain. Select the Managed Server from the list. If you are deploying AIA Foundation Pack to a SOA cluster, you should select the cluster name in this field.</p> <p>The Managed Server is _____</p> <p>AIA Foundation Pack creates JMS persistent store on each individual managed server. To use the automatic JMS failover feature, manually configure the file store to point to a folder in the shared memory location.</p> <p>For information on how to do this, refer to "Configuring a Shared JMS Persistence Store" in <i>Oracle Fusion Middleware Enterprise Deployment Guide for Oracle SOA Suite</i>.</p>
Managed Port	<p>This field gets updated automatically once you select the managed server. If you have configured a SOA Cluster, the SOA Cluster port appears in the list.</p>
Remote Installation	<p>If you are deploying AIA Foundation Pack on a remote server, which is different from the machine where this installer is launched, then check this checkbox. When you choose this option, AIA Foundation Pack Installer allows you to install AIA Foundation Pack (i.e. create AIA Foundation Pack HOME) on the machine where you have launched the installer and deploy AIA Foundation Pack to a remote server mentioned in the Admin Host Name field.</p> <p>If you are deploying AIA Foundation Pack on the server where you are launching the Installer, leave this field unchecked.</p>
Local JDEV Home	<p>If you select the Remote Installation option, you will be prompted for Local JDeveloper Home. Browse and select the JDeveloper Home from your local machine.</p> <p>You can leave the field empty if you are not doing remote deployment.</p> <p>The Local JDev Home is _____</p>
Cluster Installation	<p>If you are deploying AIA Foundation Pack on a SOA Cluster check this check box. You should have chosen the cluster name in the Managed Server field.</p>
SOA Home	<p>If you select the Cluster Installation option, you will be prompted for SOA Home. Browse and select the SOA Home from your local machine.</p> <p>You can leave the field empty if you are not doing cluster deployment.</p> <p>The SOA Home is _____</p>

Table 2–2 (Cont.) Fields in SOA Server Details Screen

Field	Description
Cluster Proxy Hostname	<p>The field is enabled only when you select the Cluster Installation option. This value is the loadbalancer host name which you have configured to loadbalance incoming requests to web servers that ultimately reach the SOA managed servers.</p> <p>The Cluster Proxy Hostname is _____</p>
Proxy Port	<p>This field is enabled only when you select the Cluster Installation option. This value is the port number of the proxy server.</p> <p>The Proxy Port is _____</p>

Note: If you select both **Remote Install** and **Cluster Install** checkboxes, you will be prompted only for the Local JDeveloper Home.

Before you deploy AIA Foundation Pack on SOA cluster, you need to configure the SOA Cluster. For instructions on configuring SOA Cluster, refer to *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle SOA Suite*.

After configuring, access appropriate URLs (like EM Console) from all hosts participating in the cluster, deploy sample artifacts shipped along with SOA Suite bundle, and perform standard failover tests to ensure that the SOA cluster configuration is successful.

When you click **Next**, Foundation Pack Installer checks whether the node manager service is available. You may also need to check whether the node manager service is active from Oracle WebLogic Admin server Console. If your node manager is not active in the admin console, refer to *Oracle Fusion Middleware Node Manager Administrator's Guide for Oracle WebLogic Server* for troubleshooting.

2.1.3 AIA Database Details Screen

Configure the following database schemas for installation of AIA. These schemas are displayed in the screen. The AIA Instance name that you have provided (see [Table 2–1](#)) will be prefixed to the schema names. The following are the AIA related schemas:

- **<INST>_AIA:** Holds error handling setup information, system setup information, CAVS data, and so on.
- **<INST>_XREF:** Holds the cross-reference information.
- **<INST>_AIALIFECYCLE:** Holds information created for AIA project lifecycle workbench application.
- **<INST>_JMS:** For JMS usage in AIA.

To configure these schemas you need JDBC connection details, passwords for the schemas, and SYS user credentials (if you want AIA Foundation Pack Installer to create the schema and underlying tables). Keep the information ready before you run the Installer.

When you configure the schemas you can:

- Choose the same JDBC information for one or more schemas. The schemas can reside in many or one physical database server.

- Choose to connect to an existing AIA schema (created manually using scripts). This means a particular schema holds information common to multiple installations. For example: AIALIFECYCLE.

Note: If you are not sure whether you need to provide the same information for all schema types or different information, select all schema types. You can modify the schema information at any point post-installation.

Fill out the information below for all the AIA schemas.

Database Connection Details

You can either **Enter Custom JDBC URL** or enter the required details in **Host Name**, **Port** and **Service Name** fields. When you opt for custom JDBC URL, the other three fields disappear. This will be useful when connecting to Oracle RAC databases.

Enter the Custom JDBC URL, as shown in [Table 2-3](#).

Table 2-3 Fields in Database Details Screen - Custom JDBC URL

Fields	Description
Enter Custom JDBC URL	When you select the Enter Custom JDBC URL check box, a field appears prompting you to enter the JDBC URL. To find this value, contact the database administrator. Example: jdbc:oracle:thin:@<host>:<port>/<service name> The Custom JDBC URL is _____

Or

Enter Database Connection Details, as shown in [Table 2-4](#).

Table 2-4 Fields in Database Details Screen - Database Connection Details

Fields	Description
Host Name	To find this value, contact the database administrator. Example: <code>server1.company.com</code> . The Host Name is _____
Port Number	To find this value, contact the database administrator. Example: 1521. The Port Number is _____
Service Name	This is the service name as found in the <code>tnsnames.ora</code> for that database. To find this value, contact the database administrator. Example: <code>orcl</code> . The Service Name is _____

Schema Details

If you choose to connect to an existing schema, you will be prompted to enter username and password.

If you choose to create a new schema, you will be prompted to enter the admin username/password required to create the required schema. This is typically `SYS`.

The database chosen here can be the same server as the database server that SOA Suite uses, or it can be different physical database server. AIA Foundation Pack recommends that it be on a different server than the one SOA Suite uses.

Connect to Existing Schema

Connect to existing schema, as shown in [Table 2-5](#).

Table 2-5 Fields in Database Details Screen - Connect to Existing Schema

Fields	Description
Username	<p>This value is the database username. To find this value, contact the database administrator. Example: apps.</p> <p>This value is read only and is the same in the table above. If this is not your existing schema name, then change the value in the Schema Type table above.</p> <p>The Username is _____</p>
Password	<p>To find this value, contact the database administrator.</p> <p>The Password is _____</p>

Or

Create New Schema

Create new schema, as shown in [Table 2-6](#).

Table 2-6 Fields in Database Details Screen - Create New Schema

Fields	Description
Username	The usernames will be populated with the instance name prefixed for each schema.
Password	Create a password for the username.
Confirm Password	Confirm the new password that you created.
Admin User	<p>To find this value, contact the database administrator. The username should have system DBA privileges. Example: sys.</p> <p>The Admin User is _____</p>
Admin Password	<p>To find this value, contact the database administrator.</p> <p>The Admin Password is _____</p>
Role	<p>This is the Role of the Admin User. Because the Admin user is expected to have DBA privileges, this field is populated with SYSDBA.</p> <p>The Role is _____</p>
Default Tablespace and Temporary Tablespace	If you do not enter Default and Temporary Tablespace values, the schemas and the artifacts are created in database defaults.

2.1.4 Metadata Service Repository Screen

This is the location where AIA Foundation Pack Metadata Artifacts are stored. Though the screen contains multiple fields, you need to provide only the password. Data in the other fields normally populates automatically. If it does not, then you need to enter the data manually. The screen contains the fields listed in [Table 2-7](#).

Table 2–7 Fields in Metadata Service Repository Screen

Field	Description
MDS Repository URL	This is where the MDS repository resides. If this value is not populated automatically, enter the jdbc URL of the database on which MDS partition of SOA Suite resides. Example: jdbc:oracle:thin:@<host>:<port>/<service name> The MDS Repository URL is _____
MDS Username	This value is MDS Schema Username.
MDS Password	To find this value, contact the MDS administrator. The MDS Admin Password is _____

2.1.5 Oracle Enterprise Repository Details Screen (Optional)

Oracle Enterprise Repository is a product separate from AIA Foundation Pack and is an optional component in the context of AIA Foundation Pack installation and execution.

If you do not want to adopt Oracle Enterprise Repository at this time, click **Next** to skip this page.

During AIA Foundation Pack installation, provide the Oracle Enterprise Repository-related information when prompted by the AIA Foundation Pack Installer. The screen contains the fields listed in [Table 2–8](#).

Table 2–8 Fields in Oracle Enterprise Repository Screen

Field	Description
OER URL	This value is typically the machine name, port number on which OER is installed. Provide URL in this format: http://<hostname>:<port>/oer. The OER URL is _____
OER Username	To find this value, contact the system administrator. The OER Admin Username is _____
OER Password	To find this value, contact the system administrator. The Password is _____

When you click **Next**, Foundation Pack Installer prompts you to enable **Remote JDBC**. For harvesting, Remote JDBC must be enabled prior to invoking Harvester.

For information about how to enable remote JDBC, see Oracle Fusion Middleware Installation Guide for Oracle Application Integration Architecture Foundation Pack, Enabling Remote JDBC Connection in WebLogic Server.

Click **OK** and continue with installation.

Run-time service information is not automatically available in Oracle Enterprise Repository at the end of AIA Foundation Pack installation. Populating this information is a post-install activity.

For more information about adopting Oracle Enterprise Repository after AIA Foundation Pack has been installed, see "Harvesting Oracle AIA Content" in *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack*.

2.2 Performing Pre-Installation Configurations

This section discusses the recommended configurations to optimize Oracle SOA Suite performance and enable your AIA Foundation Pack implementation to run smoothly. This section includes the following topics:

- [Section 2.2.1, "Ensuring Correct Settings for Node Manager Startup"](#)
- [Section 2.2.2, "Performing Prerequisites for Cluster Installation"](#)
- [Section 2.2.3, "Creating AIA schemas \(Optional\)"](#)
- [Section 2.2.4, "Administering MDS Tablespace"](#)

2.2.1 Ensuring Correct Settings for Node Manager Startup

To ensure correct settings for Node Manager startup:

1. Navigate to the `$MW_HOME/wlserver_10.3/common/nodemanager`.
2. Open the `nodemanager.properties` file and verify the value for `StartScriptEnabled` property.
3. If it is `false` change to `StartScriptEnabled=true`
4. If you changed the above value, restart Node Manager by navigating to `$MW_HOME/wlserver_10.3/server/bin` and using the appropriate commands.
5. While starting the node manager, ensure that you set the listen address different from `localhost`. It is preferred to give the fully qualified name of the machine.

For Example: `./startNodeManager.sh` for Linux and `startNodeManager.bat` for Microsoft Windows.

Before running the command, navigate to the WebLogic console, click **Machines, Nodemanager**. Here ensure that the value of **Listen** address and **Listen** port are the fully qualified name of the machine and port number respectively.

6. Ensure that you start the SOA Server using the Node manager.

To ensure correct settings for Node Manager startup in production environment:

AIA Foundation Pack Installer uses `nmConnect()` to interact with Node Manager of Weblogic. In the production environment, Node Manager cannot use `nmConnect()` by default. To enable `nmConnect()`, refer to "Controlling and Configuring Node Manager Using WLST" in *Oracle Fusion Middleware Node Manager Administrator's Guide for Oracle WebLogic Server*.

2.2.2 Performing Prerequisites for Cluster Installation

To perform prerequisites for cluster installation:

1. Open the `<WebTier_HOME>/instances/<instances_name>/config/OHS/ohs1/mod_wl_ohs.conf` file.
2. Add the following code if you are installing only Foundation Pack on cluster.

```
<Location /AIA>
SetHandler weblogic-handler
WebLogicCluster <machine1_hostname>:<port>,<machine2_hostname>:<port>
WLLogFile /tmp/web_log.log
</Location>
```

2.2.3 Creating AIA schemas (Optional)

When you create new schemas, AIA Foundation Pack Installer prompts you to choose the schema name, password and also the default and temporary tablespace on which these schemas have to be created.

In addition to these options, AIA Foundation Pack recommends that you create AIA Schemas and other DB artifacts in a manner that is based on your organization standards and advanced database options. You (DBAs) are free to create AIA schemas and the underlying artifacts using the SQL scripts shipped with the AIA Foundation Pack installation bundle under **Disk1/misc/sql** of your AIA Foundation Pack Installation CD.

These SQL scripts have to be executed for creating the schemas before launching the Installer. Use one SQL script for creating one schema (to be executed using the SYS user) and use one script for populating one schema (to be executed as the user that was just created). You need not create all schemas manually using this process. Once you finish creating schemas and the underlying database artifacts, launch the installer and in the database details screen, choose the **Connect To** option to connect to the schema that was created. For other schema types for which the SQL scripts were not executed manually choose the **Create New Schema** option.

2.2.4 Administering MDS Tablespace

AIA Foundation Pack loads a lot of data to MDS as a part of deployment. The default tablespace allocated may not be sufficient when multiple repetitive AIA Foundation Pack deployments are done on the same server. This may cause the error

"Unable to extend tablespace "

If you see the message you can increase the tablespace size.

If you have cleared a large amount of data from a data object, and expect the tablespace to have more data, you may still see this error. The tablespace release is not synchronous, and you must run command `ALTER TABLE table_name SHRINK SPACE.`

2.3 Installation Process

If you want to install Foundation Pack using AIA Foundation Pack Installer, go to [Chapter 3, "Installing and Deploying Using AIA Foundation Pack Installer"](#).

If you want to install Foundation Pack by running manual scripts, go to [Chapter 4, "Installing and Deploying using Manual Steps"](#).

If you are installing AIA Foundation Pack for the first time, Oracle recommends that you use AIA Foundation Pack Installer.

Installing and Deploying Using AIA Foundation Pack Installer

There are several installation and deployment topologies possible using AIA Foundation Pack Installer. This chapter discusses how to install and deploy the Foundation Pack using several different modes.

Note: Ensure that you access the latest *Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)* on Oracle Technology Network at <http://www.oracle.com/technetwork/index.html>.

Ensure that you review the release notes for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0) available on Oracle Technology Network at <http://www.oracle.com/technetwork/middleware/docs/aiasoarelnotes-196861.html>.

This chapter includes the following sections:

- [Section 3.1, "Installing and Deploying Foundation Pack Using Basic/Remote/Cluster Installation Options"](#)
- [Section 3.2, "Performing Silent Installation and Deployment of Foundation Pack"](#)
- [Section 3.3, "Copying only AIA Files"](#)

Note: Choose the installation that best suits your need. Refer to the whitepaper *AIA Installation and Deployment -Strategies, Topologies and Flexibilities* on <http://www.oracle.com> for more details.

3.1 Installing and Deploying Foundation Pack Using Basic/Remote/Cluster Installation Options

The section discusses the installation process. The screens that appear prompt you to enter the data that is required for successful installation of AIA Foundation Pack. Keep the completed worksheet of AIA Foundation Pack screens ready before you launch the Installer.

Note: Before you launch the installer ensure that SOA Server is configured and running. Also ensure that your Node manager is running. You can deploy a few sample composites and other SOA artifacts to ensure that the SOA Installation is successful. **Remember** to start the SOA Server using the Node manager.

For information on how to start and stop managed servers from the Administration Console and Node Manager, see "Configuring Node Manager to Use Start and Stop Scripts" in *Oracle Fusion Middleware Node Manager Administrator's Guide for Oracle WebLogic Server*.

3.1.1 Launch the Oracle AIA Foundation Pack Installer

To launch the Oracle AIA Foundation Pack Installer:

1. Navigate to cd/Disk1.
2. Follow the launch instructions for your platform. [Table 3–1](#) lists the commands that you must use based on your platform.

Table 3–1 Commands to Launch Oracle AIA Foundation Pack Installer

Platform	To launch the Oracle AIA Foundation Pack Installer:
Linux Solaris SPARC HP-UX IBM AIX Based Systems	At the command line prompt, enter: ./runInstaller -invPtrLoc <Soa_Home>/oraInst.loc -jreloc <location of the jre specific to your operating system. This directory should have /bin/java>
Microsoft Windows	Double-click setup.exe

3. If you are prompted for the JRE location, provide the JRE that you have downloaded earlier. This JRE should be the version specific to your Operating System.
4. Click **Next**.

3.1.2 Check Prerequisites

To confirm whether the prerequisites for installing AIA are met:

1. Review prerequisites in the **Prerequisite Checks** screen.
2. Click **Next**.

3.1.3 Specify Installation Location

To specify installation location:

1. Specify installation location details in the **Installation Location** screen.
2. Provide **AIA Instance** name.
3. Provide **Java Home** path.

This can be the JDK location delivered with Oracle Fusion Middleware in the Middleware Home of your FMW Installation.

4. Select **Complete Installation** option.

AIA Foundation Pack Installer provides two installation options, **Copy AIA Software Only** and **Complete Installation**.

- When you choose **Complete Installation**, the Installer installs the selected products at the specified directory.
- When you choose **Copy AIA Software Only**, the Installer copies the complete AIA software to the specified directory. You need to manually complete the installation.

5. Select the **Foundation Pack** checkbox.
6. Click **Next**.

3.1.4 Specify SOA Server Details

To specify SOA Server details:

1. Enter information about Oracle SOA server installation in the **SOA Server Details** screen.

All artifacts associated with the Foundation Pack infrastructure components will be deployed to the SOA Suite server. This screen helps you choose among **Basic**, **Remote**, and **Cluster** installations.

2. Click **Next**.

When you click **Next**, Foundation Pack Installer checks whether the node manager service is available. You may also need to check whether the node manager service is active from Oracle WebLogic Admin server Console. If your node manager is not active in the admin console, refer to *Oracle Fusion Middleware Node Manager Administrator's Guide for Oracle WebLogic Server* for troubleshooting.

3.1.5 Validate SOA Server

SOA Server Validation screen validates the SOA server. You can either wait till the SOA server is validated or you can skip the screen. AIA recommends that you do this validation.

To validate SOA server:

1. Wait till the installer validates the SOA server.

The validation process takes a few minutes.

2. Click **Next**.

Note: If the validation fails you can either retry validation or skip and move to the next screen.

3.1.6 Specify AIA Database Details

To specify AIA database details:

1. Enter database connection details and create new schema or connect to an existing schema using the **AIA Database Details** screen, as shown in [Figure 3-1](#).

This screen allows you to configure multiple schema types at the same time. You can provide input to the fields in several iterations or all at once.

In each iteration select only the schema type(s) that must be configured. You can select one or more or all schema type(s) at a time.

The schema names are automatically prefixed to the AIAInstance name. If you want to change the schema name to another schema name, click in the table, modify and press **Enter** in your keyboard.

Important: The option to change the schema name is useful when you make two installations pointing to the same database schema. For example when you have an existing AIA1_XREF schema which was created using an earlier run of the installation and want to connect to the same in this installation (for which AIA Instance is AIA2), the default value appearing will be AIA2_XREF. Modify this value in the table to AIA1_XREF and then use the **Connect to** schema option.

Once you choose the schema types, provide the **Database Connection Details** and **Schema Details** for the selected schema types.

If you have not configured all schema types, clear the already configured schema types and select a new set of schema types and provide information for the same. You must provide information for all schema types.

Note: If you are not sure whether you need to provide the same information for all schema types or different information, select **All schema types**. You can modify the schema information provided here after installation.

Figure 3–1 AIA Database Details screen

Oracle Fusion Middleware 11g AIA Foundation Pack Installation - Step 6 of 12

AIA Database Details

Navigation links: Welcome, Prerequisite Checks, Installation Location, SOA Server Details, SOA Server Validations, **AIA Database Details**, Metadata Service Repository Details, Oracle Enterprise Repository Details, Installation Summary, Installation Progress, Configuration Progress, Installation Complete.

	Schema Type	Schema Name	Schema Password	JDBC URL
<input checked="" type="checkbox"/>	AIADB	sdf_AIA		
<input checked="" type="checkbox"/>	Cross Reference	sdf_XREF		
<input checked="" type="checkbox"/>	AIA LIFECYCLE	sdf_AIALIFEC...		
<input checked="" type="checkbox"/>	JMSDB	sdf_JMSUSER		
<input checked="" type="checkbox"/>	EBO Designer	sdf_AIAEBOD		

Enter Database Connection Details for the selected Schema type(s)

☐ Enter Custom JDBC URL OR

Host Name : Port :

Service Name :

Enter Schema Details for the selected Schema type(s)

☐ Connect To Existing Schema ☒ Create New Schema

Schema User Name :

DB Password : Confirm DB Password :

Admin User : Admin Password :

Default Tablespace : Temporary Tablespace :

Buttons: Help, < Back, Next >, Finish, Cancel

Elapsed Time: 54m 18s

2. Click Next.

3.1.7 Specify Metadata Service Repository Details

To specify Metadata Service Repository details:

1. Enter Metadata service repository password in the **MetadataService Repository Details** screen.
2. Click Next.

3.1.8 Specify Oracle Enterprise Repository Details (Optional)

To specify Oracle Enterprise Repository (OER) details:

1. Enter the Oracle Enterprise Repository information in the Oracle Enterprise Repository Details screen.

Ensure that you enter the machine host name, and not the local host name. For example, enter `http://<host>:<port>/oer`.

2. Click **Next**.

3.1.9 Complete Installation

To complete installation:

1. Review the install information on the **Installation Summary** screen.

Note: If you want to make changes to the configuration before starting the installation, use the navigation pane on the left and select the topic you want to edit.

You can also create a response file based on the input provided and use it in future. For more information, see [Section 3.2, "Performing Silent Installation and Deployment of Foundation Pack"](#).

When you create a response file through OUI, passwords get stored as **<SECURE>**. Replace the password fields with actual passwords in the response file.

2. Click **Install** to accept this configuration and begin the installation.

The system displays installation progress on the Install screen.

The system displays any warnings or errors as necessary. You can review the install process log for additional details.

Note: It is normal for the servers to stop and restart during the configuration phase.

3. When installation process finishes without errors, the AIA Foundation Pack Installer displays the **Installation Complete** screen.

Note: At this stage you Install and Configure AIA products. If it fails, check the error in the log that appears in the Installer, rectify it and click **Retry**.

If you are unable to fix the issue and need to attempt a fresh Installation, click **Finish** and exit the Installer (if you have it open) and use the AIA Deinstaller to uninstall as described in [Chapter 7, "Uninstalling Oracle AIA"](#).

After you uninstall, follow the cleanup steps in [Section 7.4, "Cleaning The Environment"](#) to clean the environment and then attempt a fresh installation of AIA.

4. Click **Exit** to close the AIA Foundation Pack Installer.
5. Verify the installation using steps in [Chapter 6, "Verifying the Installation"](#).

3.2 Performing Silent Installation and Deployment of Foundation Pack

The Silent Installation option helps you install Foundation Pack without the use of the GUI based Installer.

To perform a silent Foundation Pack installation, you invoke the Installer with the **-silent flag** and provide a response file from the command line. The **response file** is a text file containing variables and parameter values (validations) that provide answers to Installer prompts.

This section includes the following tasks for the silent installation of Foundation Pack.

- [Section 3.2.1, "Creating Oracle Inventory"](#)
- [Section 3.2.2, "Creating a Response File"](#)
- [Section 3.2.3, "Installing Foundation Pack \(Running Installation Scripts\)"](#)

3.2.1 Creating Oracle Inventory

For UNIX based Installations

AIA Foundation Pack Installer uses the Oracle inventory directory to keep track of all Oracle products that are installed on the systems. The inventory directory is stored in a file named **oraInst.loc**. If this file does not exist on your system, you must create it before starting a silent installation.

To create the oraInst.loc file:

1. Log in as root user.
2. Use a text editor such as vi or emacs and create the **oraInst.loc** file in any directory.
3. Added the following two lines:

```
inventory_loc=oui_inventory_directory
inst_group=oui_install_group
```

- Replace `oui_inventory_directory` with the full path to the directory where you want the AIA Foundation Pack Installer to create the inventory directory.
 - Replace `oui_install_group` with the name of the group whose members have write permissions to this directory.
4. Exit from the root user.

For Windows based installations

If you have not installed AIA on your system, then you need to create the following Registry key and value:

```
HKEY_LOCAL_MACHINE / SOFTWARE / Oracle / inst_loc = [inventory_directory]
```

Replace `inventory_directory` with the full path to your installer files. For example: `C:\Program Files\Oracle\Inventory`.

3.2.2 Creating a Response File

Response files are text files that contain information related to validations required for installation of Foundation Pack. Before you perform a silent installation, you need to create a response file. You can create response files in either of the two ways:

- Modify the response file template **SampleAIAFP_CompleteResponse.rsp** available in the installation media under the `cd/Disk1 /misc/responseFiles`.
- Enter validation information in the AIA Foundation Pack Installer wizard and click **Save** when you complete installation in the **Installation Summary** screen.

For details, see [Section 3.1.9, "Complete Installation"](#).

3.2.2.1 Securing Response File

Your response files can contain passwords and other key information required by the Installer. To minimize security issues, AIA recommends the following guidelines:

- Set the permissions on the response files so that they are readable only by the operating system user who will be performing the silent installation.
- Remove the response files from the system after the silent installation is completed.

3.2.3 Installing Foundation Pack (Running Installation Scripts)

To run the installation script:

1. Navigate to cd/Disk1
2. Run the command to initiate installation. [Table 3–2](#) lists the commands that you must use based on your platform.

Table 3–2 Commands to Run Installation Scripts

Platform	To initiate installation:
Linux Solaris SPARC IBM AIX Based Systems HP-UX	At the command line prompt, enter: ./runInstaller -invPtrLoc <Soa_Home>/oraInst.loc -jreloc <location of the jre specific to your operating system. This directory should have /bin/java>-silent -responseFile <file_name with fully qualified directory path>
Microsoft Windows	At the command line prompt, enter: setup.exe -silent -responseFile <file_name with fully qualified directory path>

- Once the Installation is triggered, you do not need to interact with the installation process.
 - The brief logs can be seen on the command line and the system prompts when the installation is complete.
 - Post-installation, verify the installation logs as detailed in [Section 6.2, "Verifying File Creation and Logs"](#).
3. Verify the installation using steps described in [Chapter 6, "Verifying the Installation"](#).

For information on how to deploy custom built services, refer to "Generating Deployment Plans and Deploying Artifacts" in *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack*.

3.3 Copying only AIA Files

You can choose to copy only the AIA files and customize Foundation Pack Deployment Plan. Once you copy the files you can either:

- Deploy using manual steps.

- Browse AIA delivered EOL, Process models. This allows you to look at and modify the content on any machine without an actual server.

3.3.1 Launch the Oracle AIA Foundation Pack Installer

To launch the Oracle AIA Foundation Pack Installer:

1. Navigate to cd/Disk1.
2. Follow the launch instructions for your platform. [Table 3–3](#) lists the commands you must use based on your platform.

Table 3–3 *Commands to launch Oracle AIA Foundation Pack Installer*

Platform	To launch the Oracle AIA Foundation Pack Installer:
Linux	At the command line prompt, enter:
Solaris SPARC	<code>./runInstaller -invPtrLoc <Soa_Home>/oraInst.loc -jreloc</code>
IBM AIX Based Systems	<location of the jre specific to your operating system. This directory should have /bin/java>
HP-UX	
Microsoft Windows	Double-click setup.exe

3. If you are prompted for JRE location, provide the JRE that you downloaded earlier. This JRE should be the version specific to your Operating System.
4. Click **Next**.

3.3.2 Check Prerequisites

To check whether the prerequisites are met:

1. Review whether prerequisites are met in the **Prerequisites Check** screen.
2. Click **Next**.

3.3.3 Copy AIA Software

To copy AIA Software:

1. Specify the home directory for the product files in the **Installation Location** screen.
2. Select **Copy AIA Software Only**.
3. Click **Next**.

3.3.4 Complete Copying Files

To complete copying files:

1. Review the install information and verify your selections on the **Summary** screen.
2. Click **Install** to proceed with the file creation and installation of the listed products and components.

The system displays installation progress on the Install screen.

The system displays any warnings or errors as necessary. You can review the install process log for additional details.

3. When the file installation process finishes without errors, the AIA Foundation Pack Installer displays the **Installation Complete Screen**.
4. Click **Exit** to close the AIA Foundation Pack Installer.

Note: Deployment is not complete. To deploy, follow the instructions in [Chapter 4, "Installing and Deploying using Manual Steps"](#).

Installing and Deploying using Manual Steps

This chapter discusses how to deploy AIA artifacts manually without using the Installer.

This chapter includes the following sections:

- [Section 4.1, "Manual Deployment of AIA Artifacts Overview"](#)
- [Section 4.2, "Deploying Foundation Pack Using Scripts"](#)

Note: Ensure that you access the latest *Oracle Fusion Middleware Installation and Upgrade Guide for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0)* on Oracle Technology Network at <http://www.oracle.com/technetwork/index.html>.

Ensure that you review the release notes for Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.4.0) available on Oracle Technology Network at <http://www.oracle.com/technetwork/middleware/docs/aiasoarelnotes-196861.html>.

4.1 Manual Deployment of AIA Artifacts Overview

Manual deployment of AIA delivered products is not a common scenario unless there is a need to do automation. You can do a manual installation after you do **Copy AIA Files** using AIA Foundation Pack Installer and execute the Installation driver. This is explained in this chapter.

You can also deploy fully or partially build AIA content.

For information on how to deploy custom built services, refer to "Generating Deployment Plans and Deploying Artifacts" in *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack*.

Installing fully or partially custom-built AIA content is a more common scenario. This mode of installation allows you to select the specific AIA components (SOA Composites, JMS queues, and so on) you want to install and deploy. This content could be fully custom-built content for a specific business integration scenario or a combination of custom built content and Oracle AIA delivered content.

AIA makes available all tools and utilities required to build your custom installation. These are the same tools used by Oracle to deliver pre-built integrations (PIPs), Foundation Pack and the AIA Demo. These tools allow you to focus on the "what-to-deploy" and not the "how-to-deploy", thereby allowing custom content to be deployed easily and in exactly the same manner as AIA recommends.

AIA Project Lifecycle Workbench allows you to manage your project. Using this application you can define your custom content, browse existing content, and create and maintain an AIA project. Once a project is defined you can select all elements or a subset of elements to auto generate a deployment plan. The deployment tool will deploy this plan to the specified servers.

4.2 Deploying Foundation Pack Using Scripts

You need to perform the following steps to complete manual deployment of Foundation Pack.

4.2.1 Fulfill Prerequisites for Script Based Deployment

To fulfill the prerequisites for script based deployment of Foundation Pack you need to configure the following environment variables:

1. Set **MW_HOME** (where you have installed FMW 11g).
2. Set **SOA_HOME** to the directory where you have installed SOA 11g. For example `c:\MW_HOME\AS11gR1SOA`.
3. Set **AIA_HOME** to the directory where you have copied AIA software. For example `d:\AIA_HOME`.
4. Set **JAVA_HOME** to directory where you have installed Java.
5. Set **ANT_OPTS**="`-Xms512m -Xmx1024m -XX:MaxPermSize=512m`".
6. Set **ORACLE_HOME**=\$SOA_HOME.
7. Set **WEBLOGIC_HOME**=\$MW_HOME/wlserver_10.3.
8. Set **HARVESTER_HOME**=\$AIA_HOME/Infrastructure/LifeCycle/AIAHarvester.
9. Set **ANT_HOME**=\$AIA_HOME/ant.
10. Set **PATH**=\$JAVA_HOME/bin:\$ANT_HOME/bin:\$PATH.
11. Set **CLASSPATH**=\$WEBLOGIC_HOME/server/lib/weblogic.jar:\$AIA_HOME/lib/aia.jar:\$MW_HOME/modules/net.sf.antcontrib_1.0.0.0_1-0b2/lib/ant-contrib.jar:\$CLASSPATH.

4.2.2 Create AIA Instance

To create AIA instance:

1. Copy `AIAHome/Infrastructure/Install/templates/AIAInstallProperties.xml.tmpl` to `AIAHome/config/AIAInstallProperties.xml`.
2. Update **AIAInstallProperties.xml** to reflect to target server details.
3. Navigate to `AIAHome/Infrastructure/Install/AID`.
4. Run the following command to create an AIA Instance:

```
ant -f AIACreateInstance.xml -DPropertiesFile=<location of the AIAInstallProperties.xml file>
```
5. Encrypt the passwords in the `AIAInstallProperties.xml` file.

The AIAInstallProperties.xml contains plain text passwords. AIA recommends that you encrypt these passwords. AIA provides a utility to encrypt these passwords by creating a key store that AIA will use for further actions.

6. To encrypt passwords, navigate to AIAHome/util folder and execute the following command:

```
ant -f createStore.xml generate -DPropertiesFile=<location of
AIAInstallProperties.xml>
```

4.2.3 Run Installation Scripts

To run the installation script:

1. Navigate to AIA_HOME/aia_instances/<instance_name>/bin.
2. Run the command

```
. aiaenv.sh (for Unix based)
aiaenv.bat (for windows)
```

3. Navigate to AIA_HOME/Infrastructure/Install/AID.

4. Run the following command to initiate installation:

```
ant -f AIAInstallDriver.xml
-DPropertiesFile=$AIA_HOME/aia_instances/<Instance
Name>/config/AIAInstallProperties.xml
-logfile $AIA_HOME/aia_instances/<Instance Name>/logs/FPInstall.log
-DDeploymentPlan=$AIA_HOME/aia_instances/<Instance
Name>/config/FPInstallDP.xml
```

5. Verify the installation using steps in the Verifying the Installation chapter.

Post-Installation Configurations

This chapter discusses post-installation configurations for Oracle AIA Foundation Pack. This chapter includes the following sections:

- [Section 5.1, "Setting up Oracle JDeveloper 11g for AIA"](#)
- [Section 5.2, "Setting up AIA Roles"](#)
- [Section 5.3, "Modifying Passwords Used for AIA Deployments"](#)

5.1 Setting up Oracle JDeveloper 11g for AIA

Oracle JDeveloper enables you to modify AIA delivered content, or develop and deploy new AIA custom content. AIA uses special XPath functions and it is necessary to import these into the JDeveloper library. You can import these using either of the following procedures:

- In JDeveloper, navigate to **Tools, Preferences, SOA** and add the library **aia.jar**. The aia.jar is available under AIA_HOME/lib directory
- If you download the AIA plugin from update center to use AIA service constructor, navigate into **Tools, Preferences, SOA** and add **<JDEV_HOME>/jdeveloper/lib/aia.jar** to make the functions available to all projects.

Now you can modify AIA delivered processes.

All AIA artifacts in AIA Home include the JDeveloper projects (.jpr files) along with the source code.

To modify AIA delivered processes:

1. Copy the content from **AIAHOME** to the JDeveloper workspace.
2. All AIA delivered composites are available in AIA_HOME and also include the JDeveloper projects (.jpr files). Copy this content to JDeveloper workspace.
3. Modify the composites as per your requirements.
4. Deploy the composites from the JDeveloper context menu.
5. Review your changes and copy the contents back to AIA_HOME to the same folder where you copied it from.

This ensures that the modified code is made available to subsequent deployments in other environments.

Note: If you are maintaining source control for AIA_HOME contents, you need to check-in code to version control at this stage.

5.2 Setting up AIA Roles

To set up AIA roles on WebLogic server:

1. Login to the WebLogic server using the appropriate port *http://<hostname>:<port number>/console*
2. Click **Security Realms** on the left panel.
3. Click **myrealm** (or the realm with *true* in the Default Realm column) in the list.
4. Click the **Users and Groups** tab.
5. Click the **Groups** tab.
6. Add the following roles (in JDeveloper they are **Roles**; in WebLogic Server they are **Groups**)

For AIA Lifecycle:

- **AIALifecycleUser**

Assigning users to this role enables them to access all aspects of the Project Lifecycle Workbench, excluding bill of material generation. Typically, you would assign this role to solution architects and functional product managers.

- **AIALifecycleDeveloper**

Assigning users to this role enables them to access all aspects of the Project Lifecycle Workbench, excluding bill of material generation. Typically, you would assign this role to integration developers.

- **AIALifecycleInstallDeveloper**

Assigning users to this role enables them to access all aspects of the Project Lifecycle Workbench, *including* bill of material generation. Typically, you would assign this role to installation developers.

Note: Each of these AIA Lifecycle roles are included in the Administrators role. If a user has been assigned the Administrators role, the user inherits all the privileges provided by these AIA roles.

For CAVS

- **AIAApplicationUser**

To add the roles:

1. Click the **New** button.
2. Enter the role in the **Name** field.
3. Click **OK**.

Now you need to assign groups to the roles.

To assign groups to a roles:

1. Click **Security Realms** on the left panel.
2. Click **myrealm** (or the realm with *true* in the Default Realm column) in the list.
3. Click the **Users and Groups** tab.
4. Click the **Users** tab.

5. Select the weblogic user (or add your own).
6. Select the **Groups** tab.
7. Move the desired groups to the chosen list.
8. Click **Save**.

5.3 Modifying Passwords Used for AIA Deployments

The passwords specified at the time of AIA installation can be changed post-install. To help you change passwords, AIA provides a utility called **UpdateStore**. AIA stores its passwords in **Keystore**. This utility can modify the existing passwords in the Keystore.

In order to run this utility, the AIAIntallProperties.xml properties file should exist in the corresponding AIAHOME/AIA_INSTANCE/<Instance name>/config folder. Also the password being modified must exist in the file.

Note: This utility only updates encrypted passwords in AIA Installation. It will not change passwords of the SOA Server or the Database schemas.

To modify passwords:

1. Source the **aiaenv.sh** in the AIA_INSTANCE/bin.
2. Browse to **AIA_HOME/util/**.
3. Execute `ant -f updateStore.xml updateStore`
`-DAdminUsername=<weblogic adminusername>`
`-DAdminPassword=<weblogic admin password>`

Update AIA Keystore screen appears.

4. Enter the **Existing Username**, **Existing Password**, **New Username** and **New Password** and the Xpath of the password which you want to change.

[Example 5-1](#) shows the expected value of the Xpath.

Note: This utility modifies the username and the password in the AIAInstallProperties.xml. This does not sync the AIAInstallProperties.xml in the MDS. You need to do it manually.

Example 5-1 Xpath for Changing Passwords

```
<properties>
<pips>
<o2c>
<username>dummy</username>
<password>[C76sjg98</password>
</o2c>
</pips>
</properties>
```

If you want to change the password under the o2c tag, enter the following values in the screen that appears.

Existing Username: dummy

Existing Password: welcome1

New Username: dummy1

New Password: welcome

XPath: /properties/pips/o2c/password

Verifying the Installation

This chapter discusses the various options for verifying the Oracle AIA Foundation Pack installation. This chapter includes the following sections:

- [Section 6.1, "Reviewing Installation and Patch information"](#)
- [Section 6.2, "Verifying File Creation and Logs"](#)
- [Section 6.3, "Verifying Foundation Pack Installation"](#)

6.1 Reviewing Installation and Patch information

You can view all the information related to installation using the AIA web interface. You can also verify patch information when you successfully apply them.

To verify installation and patch information:

1. Navigate to the **AIA Console**: *http://<managed server name>:<managed server port number>/AIA/*.
2. Login using the appropriate user which you have created using the pre-installation steps.
3. Navigate to **CAVS**, **AIA Setup**, and **AIA Lifecycle UI**. Verify if the tabs are accessible.

6.2 Verifying File Creation and Logs

AIA Foundation Pack Installer displays warning and errors messages in log files. You can also check whether the home directory that you defined was created and populated with applicable product files.

- To check log files and verify file creation, open the log files from *AIAHome/cfgtoollogs/oui/install.<timestamp>.out* once you close OUI.
- You can also check the logs under *AIAHome/aia_instances/<instance_name>/logs*. These logs are descriptive.
- If you have done the script base installation, then the log file will be in the location that you mentioned in the arguments **-logfile** of the installation command.

6.3 Verifying Foundation Pack Installation

To verify Foundation Pack installation:

1. Login to **Oracle Enterprise Manager**: *http://<server name>:<port number>/em /*.

2. Log in using the appropriate user which you have created using the pre-installation steps.
3. Navigate to **Farm**.
4. Expand **Farm_soa_domain**, **SOA**, **soa infra** in the left panel.
5. Navigate to **Deployed Composites** in the main panel and confirm that you can view the following composites:
 - AIAB2BErrorHandlerInterface
 - AIAB2BInterface
 - ReloadProcess
 - AIAAsyncErrorHandlingBPELProcess
 - AIAReadJMSNotificationProcess
 - AIAErrorTaskAdministrationProcess

Uninstalling Oracle AIA

This chapter discusses how to uninstall Oracle AIA Foundation Pack and verify uninstallation. This chapter includes the following sections:

- [Section 7.1, "Overview of Oracle AIA Uninstallation"](#)
- [Section 7.2, "Uninstalling Foundation Pack using AIA Deinstaller"](#)
- [Section 7.3, "Undeploying a Specific Instance of AIA Foundation Pack Using Manual Steps"](#)
- [Section 7.4, "Cleaning The Environment"](#)
- [Section 7.5, "Verifying Uninstall Processes"](#)

7.1 Overview of Oracle AIA Uninstallation

If you have multiple AIA instances, you need to manually uninstall the specific AIA instance that you want to undeploy.

Refer to [Section 7.3, "Undeploying a Specific Instance of AIA Foundation Pack Using Manual Steps."](#)

If you want to completely uninstall AIA (which means undeploying all AIA instances and removing AIA Home), then you need to undeploy all AIA instances except for one instance and then use the De-installer.

If you have deployed the Foundation Pack Demo, undeploy it before you uninstall Foundation Pack, because it does not get undeployed automatically when you uninstall Foundation Pack.

Tip: Before launching the Deinstaller, ensure that the SOA server is running.

7.2 Uninstalling Foundation Pack using AIA Deinstaller

To uninstall Foundation Pack using AIA Deinstaller:

1. Navigate to `AIAHOME/oui/bin`.
2. Launch **Deinstaller**.

Follow the launch instructions for your platform. [Table 7-1](#) lists the commands you must use based on your platform.

Table 7–1 Commands to launch Oracle AIA Deinstaller

Platform	To launch the Oracle AIA Foundation Pack Installer:
Linux Solaris SPARC IBM AIX Based Systems HP-UX	At the command line prompt, enter: ./runInstaller -invPtrLoc <SOA_HOME>/oraInst.loc -deinstall -jreloc <location of the jre specific to your operating system. This directory should have /bin/java>
Microsoft Windows	At the command line prompt, enter: setup.exe -deinstall

AIA Deinstaller launches the **Welcome** screen.

3. Click **Next**.

AIA Deinstaller displays the installed products.

4. Select the instance to be uninstalled by clicking once on the Instance name.

5. Click **Deinstall**.

6. AIA Deinstaller displays a warning message with the following deinstallation options:

- Deinstall and delete AIA Home directory. To deinstall and delete AIA Home directory, click **Yes**.
- Deinstall without deleting AIA Home directory. To deinstall without deleting the AIA Home directory, click **No**.

7. Choose one of the options.

8. Click **Finish** in the **Deinstallation Complete** screen.

Note: After you uninstall, follow the cleanup steps in [Section 7.4, "Cleaning The Environment"](#) to clean the environment and then attempt a fresh installation of AIA.

7.3 Undeploying a Specific Instance of AIA Foundation Pack Using Manual Steps

To uninstall Foundation Pack using manual steps:

1. Navigate to **AIA_HOME/aia_instances/<instance_name>/bin**.

2. Run the following command:

```
. aiaenv.sh (for Unix based)
aiaenv.bat (for windows)
```

3. Navigate to **AIA_HOME/Infrastructure/Install/AID**.

4. Run the following command to initiate uninstallation:

```
ant -f AIAInstallDriver.xml
-DDPropertiesFile=$AIA_HOME/aia_instances/<Instance
Name>/config/AIAInstallProperties.xml
-logfile $AIA_HOME/aia_instances/<Instance Name>/logs/FPUnInstall.log
```

```
-DeploymentPlan=$AIA_HOME/aia_instances/<Instance
Name>/config/FPUInstallDP.xml
```

Note: After you uninstall, follow the cleanup steps in [Section 7.4, "Cleaning The Environment"](#) to clean the environment and then attempt a fresh installation of AIA.

7.4 Cleaning The Environment

Clean the environment after you uninstall AIA Foundation Pack.

To clean the environment:

1. Navigate to WebLogic console and click **Deployments** in the left navigation bar.
2. Select all AIA related deployments if they exist (ideally they get removed during uninstallation) and click **Delete**.
3. Repeat Step 2 for Datasources, JMS modules and JMS resources if they exist.
4. Navigate to **Security Realms** and select your realm (*myrealm*).
5. Click the **Users and Groups** tab and remove *AIA users* and *AIA groups*.
6. Shutdown the SOA managed server and then shutdown the Admin server.
7. Start the Admin server.
8. Open the console, and verify whether you have any changes to activate in the **Activation** center. If there are any, activate them. If they do not get activated, undo all changes.
9. Open the folder **Middleware/domains/<your_domain>** and remove the file **edit.lok**.
10. Open the folder **Middleware/domains/<your_domain>/pending**, and remove all files.
11. Restart the SOA Server.

You can now attempt a fresh installation. Ensure that you have completed all pre-installation steps before attempting the installation.

7.5 Verifying Uninstall Processes

To verify uninstallation:

1. Navigate to AIA Console **http://<server name>:<port number>/AIA/** and confirm that this page is not available.
2. Log in to Oracle Enterprise Manager **http://<server name>:<port number>/em /**.
Log in using the appropriate user which you have created using the pre-install steps.
3. Navigate to **Farm**.
4. Expand **Farm_soa_domain**, **SOA**, **soa infra** in the left panel.
5. Navigate to **Deployed Composites** in the main panel.

You should not be able to view any AIA related composites.

Installing Reference Process Models

This chapter provides an overview of the Reference Process Model linkage to the Oracle Enterprise Repository (OER) and the installation process. This chapter includes the following sections:

- [Section 8.1, "Understanding Reference Process Model Linkage to Oracle Enterprise Repository"](#)
- [Section 8.2, "Understanding the Installation Process"](#)
- [Section 8.3, "Manually Uploading Reference Process Models to Business Process Publisher"](#)
- [Section 8.4, "Configuring the AIA Redirect Servlet"](#)
- [Section 8.5, "Configuring the Tomcat Redirect Servlet"](#)

8.1 Understanding Reference Process Model Linkage to Oracle Enterprise Repository

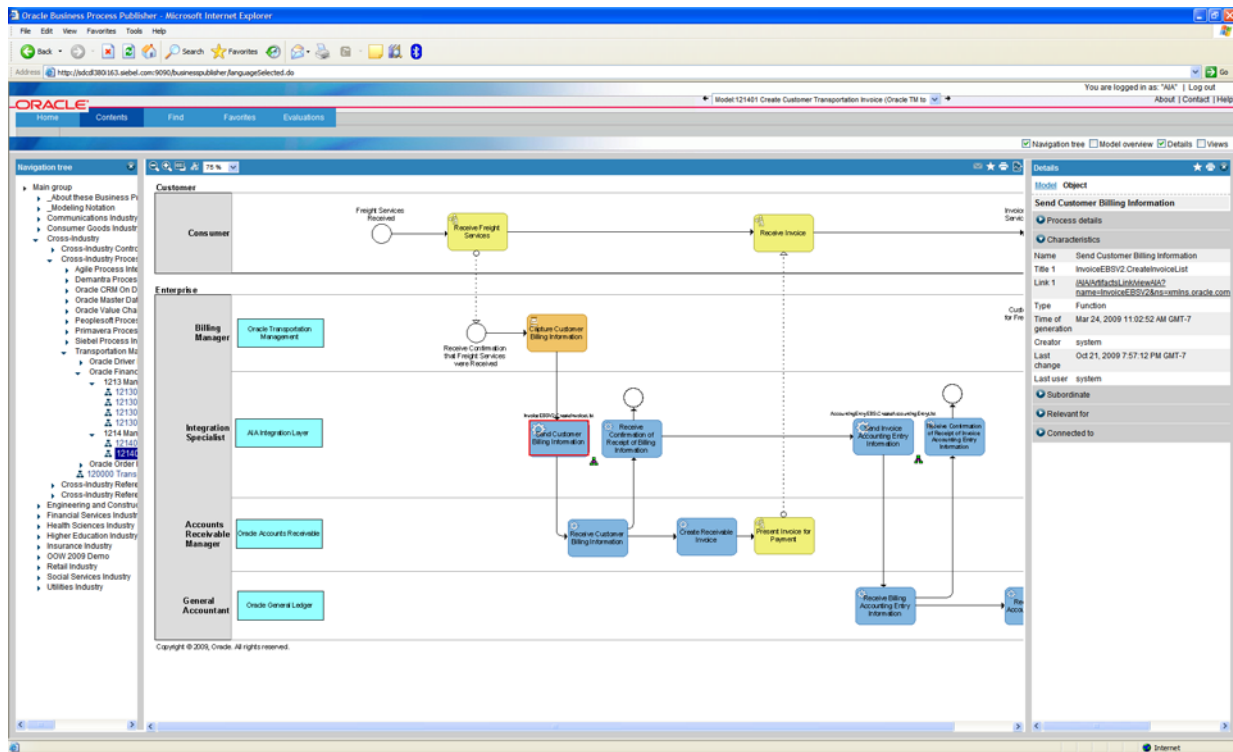
Oracle has created and delivered conceptual horizontal logical reference process models, as well as reference process models for those processes supported by Oracle Application Integration Architecture (AIA) releases. The reference process models for Foundation Pack (FP) or a Process Integration Pack (PIP) enable you to see and understand how AIA provides application integration solutions for your business processes.

The models combine the view of the business analyst with the view of the technical analyst and provide both a business and technical view of the process. Oracle uses a standard modeling notation and adds technical artifacts to the models at the lowest level of decomposition by linking the reference process models to the appropriate Enterprise Business Service (EBS) artifact in the OER.

The user experience enables you to:

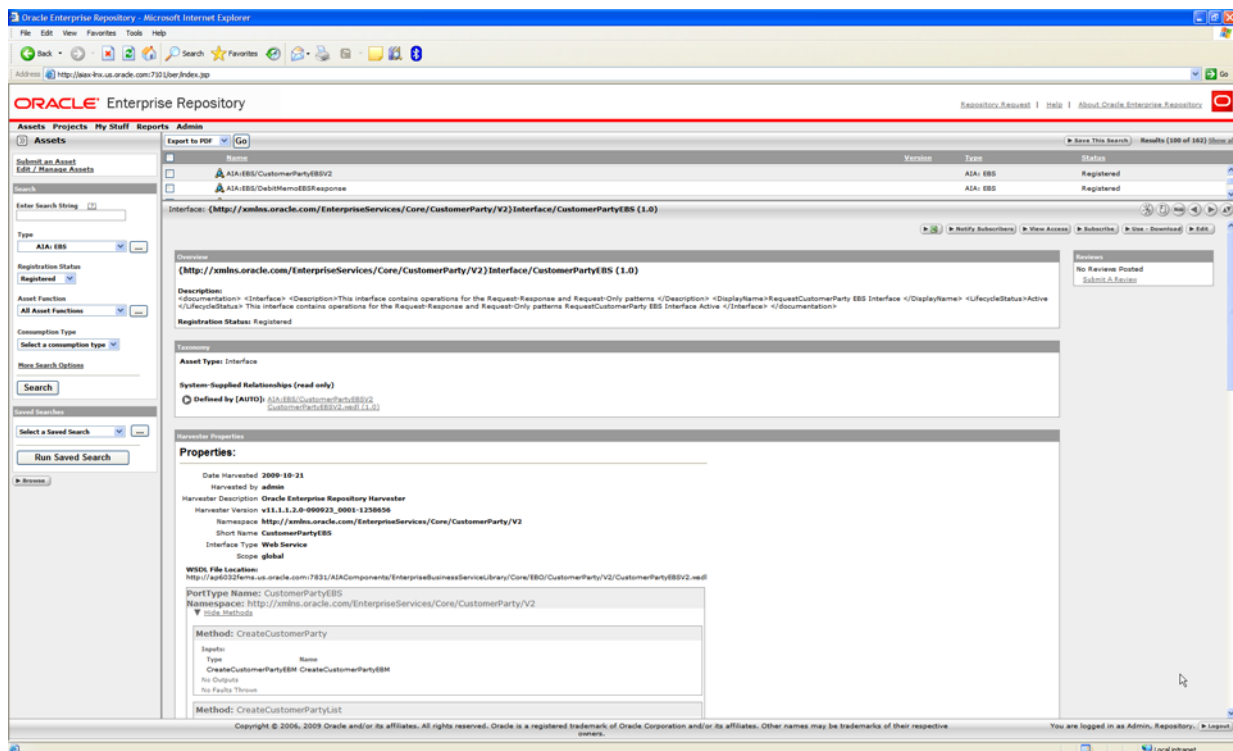
- Log in to the Business Process Publisher.
- Navigate to a process model.
- Drill down through the various process levels from L0 all the way to the lowest level, L2 or L3 as shown in [Figure 8–1](#).

Figure 8–1 L3 Model with Technical Artifacts Viewed through Business Process Publisher



- Click a link (relative URLs) to access the relevant EBS that supports the process within the OER, as shown in Figure 8–2.

Figure 8–2 OER EBS for Artifact in L3 Model



Because this feature requires UI linkages between two distinct products, Business Process Publisher and Oracle Enterprise Repository, the following mechanisms are in place:

- When users click the relative URLs in the process models inside the Business Publisher, HTTP requests are made to a **redirect servlet**. This servlet resides on the Tomcat application server of the Business Publisher; its sole purpose is to redirect the requests to another redirect servlet residing on the Oracle AIA side. This first redirect servlet will be called the **Tomcat redirect servlet** in the remainder of this chapter.
- The second servlet resides on the Oracle AIA side. Its purpose is to intercept the call and interpret the URLs. The URL is encoded and parameterized. As such, the URL is translated into an appropriate OER UI URL. This second redirect servlet will be called the **AIA redirect servlet** in the remainder of this chapter.
- At this point, OER UI is rendered in a pop-up browser.

8.2 Understanding the Installation Process

The reference process models are delivered in two forms:

- The source database file (.adb), which contains all models. These models can be modified through the use of a licensed copy of Oracle's Business Process Architect (OBPA)
- An export of all models, which are read only through the use of Oracle's Business Process Publisher.

The installation of the reference process models differs from the AIA installation. They use different installers and can be installed on different machines.

OER can be installed as an option during the AIA installation or separately from the AIA installation. If installing OER separately from the AIA installation, the **AIA redirect servlet** will have to be manually deployed on the WebLogic server where AIA is deployed.

Options for Utilizing the Reference Process Models

The first option for utilizing the reference process models is through OBPA. OBPA allows for full access to the reference process models. If you do not already have a copy of OBPA, contact Oracle Sales to purchase a licensed copy. Follow the instructions provided with the software to install the Architect and restore the models source database file. The source database file, *filename.adb*, is located in the `\<aia.home>\seeddata\BPM\ADB\` directory on the *Oracle AIA release media pack*. Included in this directory are the Oracle AIA filter and template files used to create the models. Refer to the software documentation for installing the filter and template. If you already have a licensed copy of the Business Process Architect, you can obtain the credentials to log into the database from the metalink note 763620.1 titled *Login Credentials to open the AIA models within Oracle BPA Suite* on Metalink.

The second option for utilizing the reference process models is through Oracle's Business Process Publisher. Unlike OBPA, Publisher allows read-only access to the process models. The Business Process Publisher is *a packaged component within an Oracle AIA release media pack*. The Business Process Publisher installation is described in the installation guide that comes with the Publisher. You must manually copy and upload the AIA reference process models onto the Business Publisher and implement and configure the Tomcat redirect servlet as discussed in the next sections, before you can view the models. The reference process model files that are required to be installed with the Publisher can be found in the `\<aia.home>\seeddata\BPM\Export` directory

and the files to configure the Tomcat redirect servlet are in the
 \<aia.home>\seeddata\BPM\Setup directory.

Note: The installation of Business Process Publisher and the models is independent from the AIA installation. The current feature of uploading the reference process models onto the Business Process Publisher is supported only on a Microsoft Windows XP platform at this time. Use Business Process Publisher 11gR1 version 7.1.0.397082 to view the models.

8.3 Manually Uploading Reference Process Models to Business Process Publisher

To manually upload Reference Process Models to the Business Process Publisher:

1. Download Business Process Publisher and unzip it on a local drive (that is, C:\).
2. Copy the **\Export directory** and its contents from \<aia.home>\seeddata\BPM\ to the \Business Process Publisher directory (that is, C:\<directory Publisher unzipped to>\Business Process Publisher\).

Figure 8–3 and Figure 8–4 show the Business Process Publisher directory structure with the added Export directory.

Figure 8–3 Directory Structure for Business Process Publisher with Export Directory

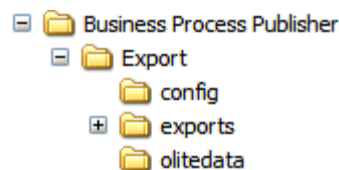


Figure 8–4 Contents of Business Process Publisher Folder

Name	Size	Type
Export		File Folder
_setup.dll	317 KB	Application Extension
data1.cab	4,783 KB	cab Archive
data1.hdr	1,878 KB	HDR File
data2.cab	340,272 KB	cab Archive
ISSetup.dll	523 KB	Application Extension
layout.bin	1 KB	BIN File
setup.exe	364 KB	Application
setup.ini	1 KB	Configuration Settings
setup.inx	331 KB	INX File
setup.isn	650 KB	ISN File
Version.txt	1 KB	Text Document

3. Run the **setup.exe** from C:\<directory Publisher unzipped to>\Business Process Publisher\.
4. Accept all the defaults.

5. Restart your computer for the application to install successfully.
6. Log in to Business Publisher (username = *AIA*, password = *Welcome1* and filter = *Entire Method*).

Note: You can view the models at this point with the **Entire Method Filter** or you can install the **AIA BPA Filter** and log in using it. You cannot view if you log in using any other filter because other filters do not have all objects that are used to create the AIA models. You cannot link to the EBS artifacts until you complete the OER installation and configure both redirect servlets.

8.4 Configuring the AIA Redirect Servlet

To deploy the AIA redirect servlet on the WebLogic server where AIA is installed, perform these tasks after installing OER.

1. Navigate to `$AIA_HOME/Infrastructure/Install/templates`.
This folder contains `AIALifeCycleArtifactsLink.war` file.
2. Encrypt the **HarvesterSettings.xml**. To encrypt the file:
 - a. Update the `HarvesterSettings.xml` file under `$AIA_INSTANCE/Infrastructure/LifeCycle/AIAHarvester/Harvester` with the correct OER URL and login credentials (cleartext).
 - b. Encrypt this file using the `encrypt.sh` script under `$AIA_HOME/Infrastructure/LifeCycle/AIAHarvester/Harvester`.
 - c. `./encrypt.sh $AIA_INSTANCE/Infrastructure/LifeCycle/AIAHarvester/Harvester/HarvesterSettings.xml $AIA_INSTANCE/Infrastructure/LifeCycle/AIAHarvester/Harvester/HarvesterSettings.xml`
3. Add the **HarvesterSettings.xml** to **AIALifeCycleArtifactsLink.war** file.
4. Deploy the modified war file either from either from the WebLogic admin console or using the deployment plan. To deploy using the deployment plan:
 - a. Create a **DeploymentPlan.xml** file and paste the content shown in [Example 8-1](#).

Example 8-1 DeploymentPlan.xml

```
<?xml version="1.0" standalone="yes"?>
<DeploymentPlan component="FP" version="3.0">
<Deployments>
<Application name="AIALifeCycleArtifactsLink"
filelocation="$AIA_INSTANCE/Infrastructure/Install/templates/AIALifeCycleArtifactsLink.war"
wlserver="fp" failonerror="true" action="deploy"/>
</Deployments>
</DeploymentPlan>
```

- b. Ensure that the file location in `deploymentPlan.xml` file points to the location where the modified war file is located which is `$AIA_HOME/Infrastructure/Install/templates`.

- Set the environment by running the following commands for your platform, as shown in [Table 8–1](#).

Table 8–1 *Commands for setting environment variables for configuring AIA Redirect Servlet*

Platform	To set the environment variables:
Linux Solaris SPARC HP-UX IBM AIX Based Systems	\$AIA_INSTANCE/bin/aiaenv.sh
Microsoft Windows	\$AIA_INSTANCE\bin\aiacnv.bat

- Navigate to `cd $AIA_HOME/Infrastructure/Install/AID`
- Run the following commands for your platform to configure redirect servlet, as shown in [Table 8–2](#).

Table 8–2 *Commands for configuring redirect servlet*

Platform	Command
Linux Solaris SPARC HP-UX IBM AIX Based Systems	<code>ant -f AIAInstallDriver.xml -DDeploymentPlan=<location of DeploymentPlan.xml> -DPropertiesFile=\$AIA_INSTANCE/config/AIAInstallProperties.xml</code>
Microsoft Windows	<code>ant -f AIAInstallDriver.xml -DDeploymentPlan=<location of DeploymentPlan.xml> -DPropertiesFile=\$AIA_INSTANCE\config\AIAInstallProperties.xml</code>

8.5 Configuring the Tomcat Redirect Servlet

To configure the Tomcat redirect servlet on Business Publisher:

Note: Install OER and the AIA redirect servlet prior to configuring the Tomcat redirect servlet on the Business Publisher.

You can find the Tomcat redirect servlet files in the
`\<aia.home>\seeddata\BPM\Setup\` directory.

- Place the **aia-redirect.jar** file in the Business Process Publisher lib folder.
`\<Publisher install directory>\Program Files\Oracle BPA Suite11g\BPServer\tomcat\webapps\businesspublisher\WEB-INF\lib.`
- Reconfigure the Business Publisher **web.xml** file to trigger the filter logics implemented in the aia-redirect.jar.
The web.xml is located in the `\<Publisher install directory>\Oracle BPA Suite11g\BPServer\tomcat\webapps\businesspublisher\WEB-INF` directory
- Copy the contents of the **aia-web.xml** file and place them after the other filter parameters in the Business Publisher web.xml file.

4. Using [Example 8-2](#), modify the following parameter values, noted in bold, with the information from your AIA implementation:

Example 8-2 aia-web.xml File

```
<filter>
  <filter-class>com.oracle.aia.util.AIAServletRedirectFilter</filter-class>
  <init-param>
    <param-name>hostname</param-name>
    <param-value>{host.name}</param-value> $Replace {host.name} with
hostname of OER server and delete this comment
  </init-param>
  <init-param>
    <param-name>port</param-name>
    <param-value>{http.port}</param-value> $Replace {http.port} with SOA
port number of OER server and delete this comment
  </init-param>
  <init-param>
    <description>Version V1 or V2</description>
    <param-name>bsrversion</param-name>
    <param-value>{bsr.version}</param-value> $Replace {bsr.version} with
v2 and delete this comment
  </init-param>
  <init-param>
    <description>The physical location of AIAComponents
directory</description>
    <param-name>aialocation</param-name>
    <param-value>{aia.location}</param-value>
  </init-param>
</filter>
<filter-mapping>
  <filter-name>AIARedirectFilter</filter-name>
  <url-pattern>/*</url-pattern>
</filter-mapping>
```

5. Restart the Business Publisher for Application service, Oracle Business Process Publisher Server 11g.
6. Confirm successful configuration.
7. Log in to the Business Publisher.
8. Navigate to an L3 model.
9. Click an object and view the attributes of the object in the **Details Object** pane.
10. Click the URL in the Link 1 field. An OER login screen pops up.
11. Log in (get the username and password information from your AIA implementer).
12. Check whether you can view the information for the EBS artifact you clicked.

Note: You need to log in to OER only for the first URL link that you click; after that, OER refreshes the window with the new artifact information.

Upgrading Foundation Pack

This chapter discusses how to upgrade Oracle Application Integration Architecture Foundation Pack 11g Release 1 (11.1.1.2.0) to Foundation Pack 11g Release 1 (11.1.1.4.0).

This chapter includes the following sections:

- [Section 9.1, "Overview of the Upgrade Script"](#)
- [Section 9.2, "Upgrade and Verify Oracle SOA Suite Environment"](#)
- [Section 9.3, "Performing the Upgrade"](#)
- [Section 9.4, "Copying Project Lifecycle Workbench Data to a New Foundation Pack 11g Release 1 \(11.1.1.4.0\) Instance"](#)

9.1 Overview of the Upgrade Script

As a part of upgrading Oracle Application Integration Architecture (AIA) Foundation Pack 11g Release 1 (11.1.1.2.0) to Foundation Pack 11g Release 1 (11.1.1.4.0), the upgrade script also handles the following specific tasks.

- Runs UpgradeSchema.sql, located in \$AIA_HOME/Infrastructure/LifeCycle/sql, to update the Foundation Pack 11g Release 1 (11.1.1.2.0) database schema to the Foundation Pack 11g Release 1 (11.1.1.4.0) database schema.

This schema update increases the size of the following columns:

- AIA_DEPLOY_ATTRIBUTE_VALUES.GROUP_NUMBER
- AIA_SERVICE_ELEMENTS.SERVICE_ELEMENT_TYPE

This schema update adds the following universal unique identifier (UUID)-related table columns:

- PROCESS_UUID column added to the AIA_OER_PROCESSES table
- TASK_UUID column added to the AIA_OER_TASKS table
- TASK_BOM_UUID column added to the AIA_OER_TASK_BOMS table

UUIDs are used to uniquely identify projects in Project Lifecycle Workbench.

- Runs the UpgradeUUID.sh utility, located in \$AIA_HOME/Infrastructure/LifeCycle/PLWImExport, to add actual UUID values to the Foundation Pack 11g Release 1 (11.1.1.4.0) database that was updated to include UUID-related table columns.

If you have performed a clean upgrade and need to copy Project Lifecycle Workbench data from your existing Foundation Pack 11g Release 1 (11.1.1.2.0) instance to your new Foundation Pack 11g Release 1 (11.1.1.4.0) instance, see

[Section 9.4, "Copying Project Lifecycle Workbench Data to a New Foundation Pack 11g Release 1 \(11.1.1.4.0\) Instance."](#)

9.2 Upgrade and Verify Oracle SOA Suite Environment

We require that you upgrade your Oracle SOA Suite 11g environment to Oracle SOA Suite 11g Release 1 (11.1.1.4.0) before you upgrade Foundation Pack 11g Release 1 (11.1.1.2.0) to 11g Release 1 (11.1.1.4.0).

For information about performing a Oracle SOA Suite upgrade, see "Developing an Upgrade Strategy" in *Oracle Fusion Middleware Upgrade Planning Guide*.

Once you have completed the Oracle SOA Suite upgrade, perform the following validations to ensure that the upgraded domain is functional.

To verify that the updated Oracle SOA Suite domain is functional:

1. Verify that the Oracle Enterprise Manager console for the domain is available: `http://<admin server hostname>:<admin server port>/em`.
2. Verify that the node manager is reachable from the Oracle WebLogic Server Administration Console: `http://<admin server hostname>:<admin server port>/console`. Browse to **Environment, Machines**, **<machine corresponding to your node manager>**. Select the **Monitoring** tab. Select the **Node Manager Status** tab to view the status.
3. Verify that the SOA server can be restarted from the Oracle WebLogic Server Administration Console: `http://<admin server hostname>:<admin server port>/console`. Browse to **Environment, Servers**. Select the **Control** tab. Attempt to stop and start the **<soa_server>**.

If each of these validations return positive results, your domain upgrade to Oracle SOA Suite 11g Release 1 (11.1.1.4.0) is ready to support an upgrade to Foundation Pack 11g Release 1 (11.1.1.4.0).

9.3 Performing the Upgrade

The process of upgrading Foundation Pack 11g Release 1 (11.1.1.2.0) to Foundation Pack 11g Release 1 (11.1.1.4.0) consists of the stages discussed in this section.

This section includes the following topics:

- [Section 9.3.1, "Copying Foundation Pack 11g Release 1 \(11.1.1.4.0\) Files to AIA_HOME"](#)
- [Section 9.3.2, "Updating the AIA Environment"](#)
- [Section 9.3.3, "Running the EOL Upgrade Utility"](#)
- [Section 9.3.4, "Running the Upgrade Script"](#)

9.3.1 Copying Foundation Pack 11g Release 1 (11.1.1.4.0) Files to AIA_HOME

To copy Foundation Pack 11g Release 1 (11.1.1.4.0) files to AIA_HOME using the AIA Installer:

1. Download Foundation Pack 11g Release 1 (11.1.1.4.0).
2. Unzip the downloaded installer zip file.
3. Browse to `<Installer_Unzip_Location>/aiafp/Disk1`.

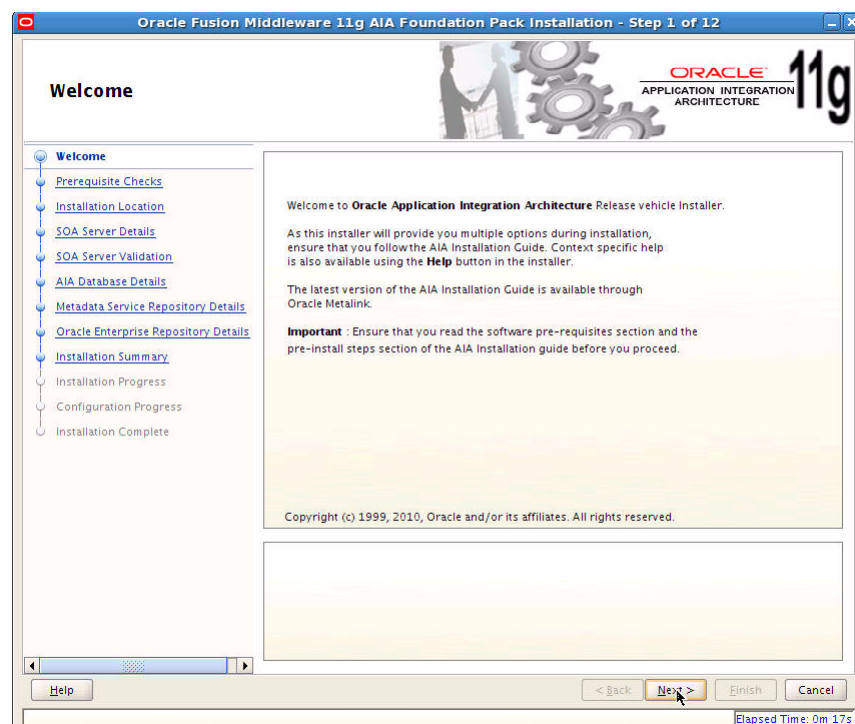
4. Ensure that the SOA server has been stopped before proceeding to the next step.
5. Execute the following command to launch the AIA Installer for upgrade:

```
./runInstaller -invPtrLoc <soa_Home>/oraInst.loc -jreloc <location of the jre specific to your operating system. This directory should have /bin/java>
```

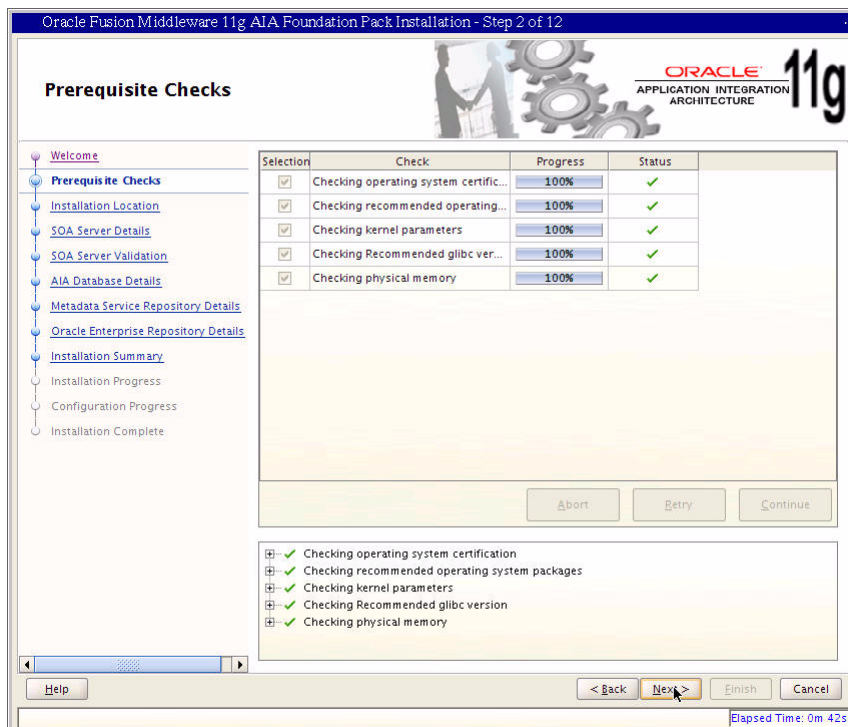
Note: At the end of this procedure, a backup of \$AIA_HOME/AIAMetaData will have been made in \$AIA_HOME/AIAFPUpdates/Update_AIAFP11114/backup.

6. The Welcome page displays, as shown in [Figure 9-1](#). Click **Next**.

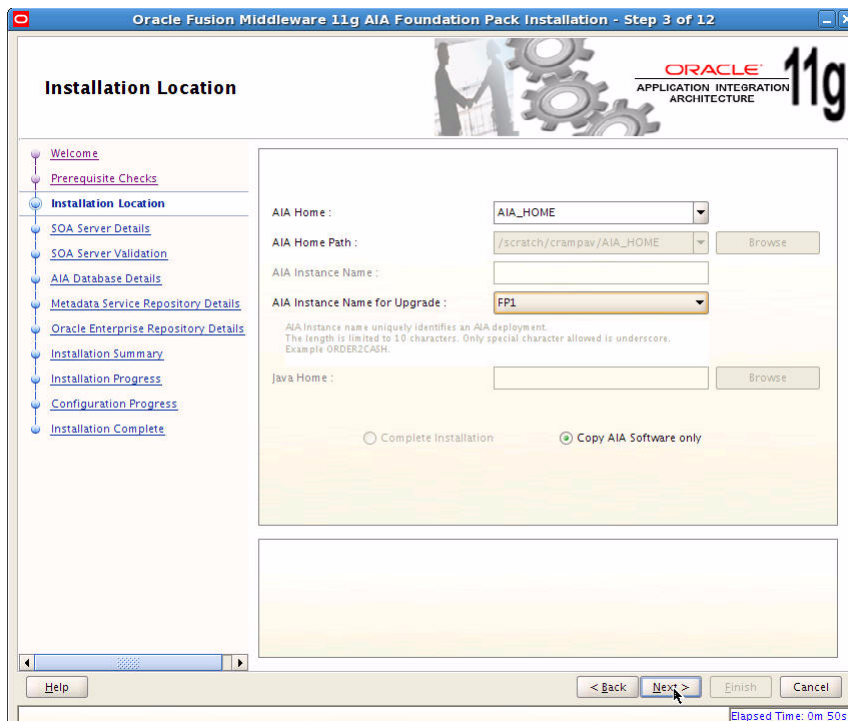
Figure 9-1 Step 1: Welcome



7. The Prerequisites page displays, as shown in [Figure 9-2](#). Verify that upgrade prerequisites have been made. Click **Next**.

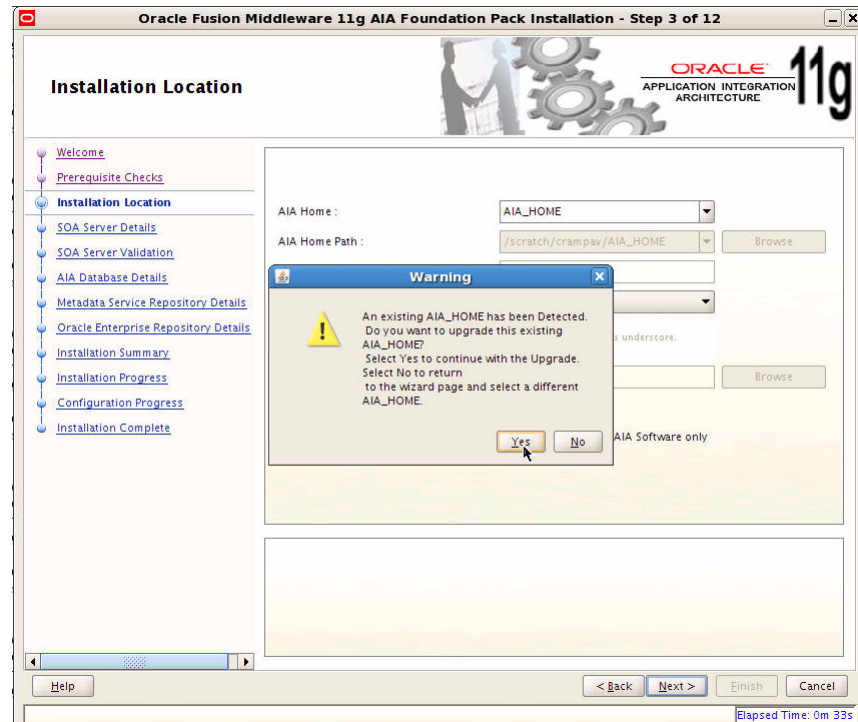
Figure 9–2 Step 2: Prerequisite Checks

8. The Installation Location page displays, as shown in Figure 9–3. In the AIA Home field, specify the existing AIA_HOME. In the AIA Instance Name for Upgrade field, select the AIA_INSTANCE that you want to upgrade. Click Next.

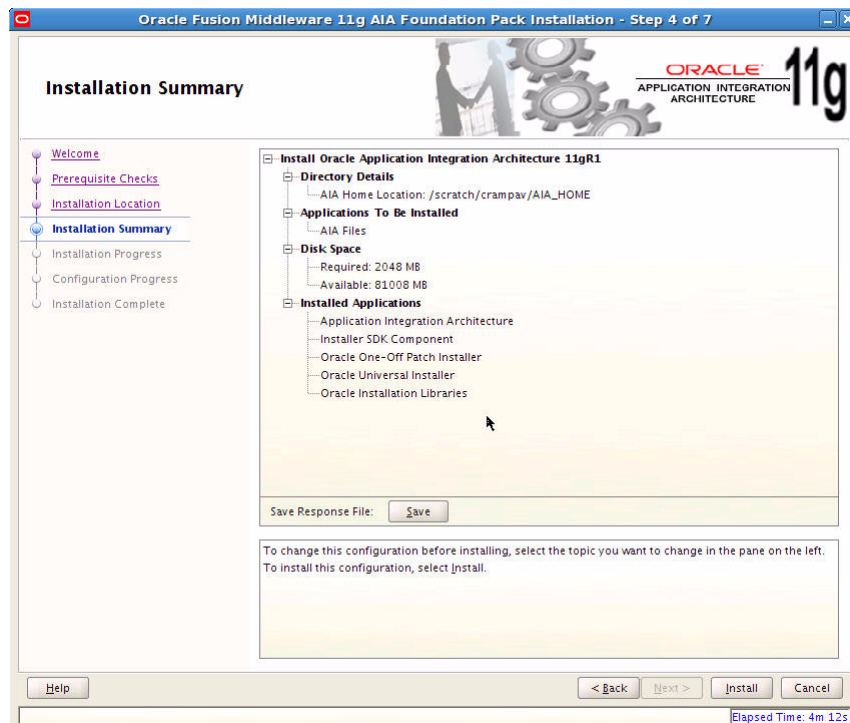
Figure 9–3 Step 3: Installation Location

9. The **Home not empty** warning message displays, as shown in [Figure 9–4](#). Click **Yes** to confirm that you want to continue with upgrading your existing AIA_HOME to Foundation Pack 11g Release 1 (11.1.1.4.0). Click **Next**.

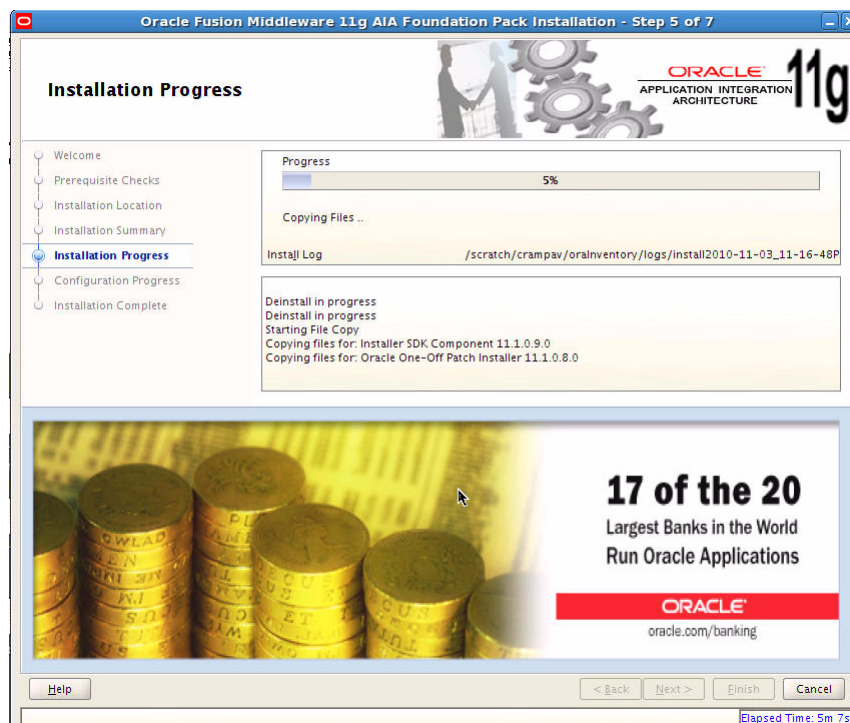
Figure 9–4 Confirm Your Intent to Upgrade



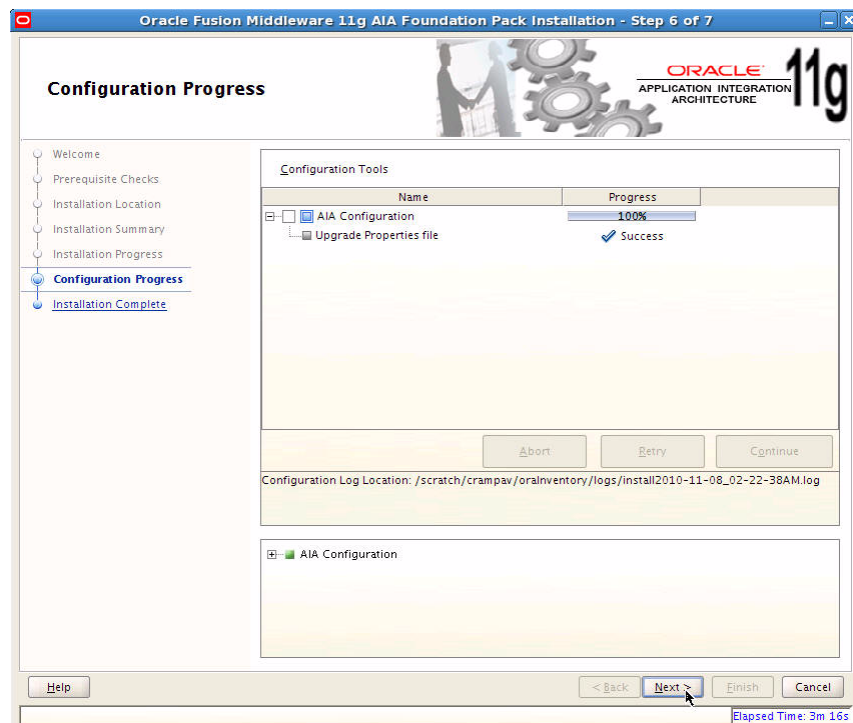
10. The Installation Summary page displays, as shown in [Figure 9–5](#). Verify your upgrade value selections. Click **Install** to proceed with copying files.

Figure 9–5 Step 4: Installation Summary

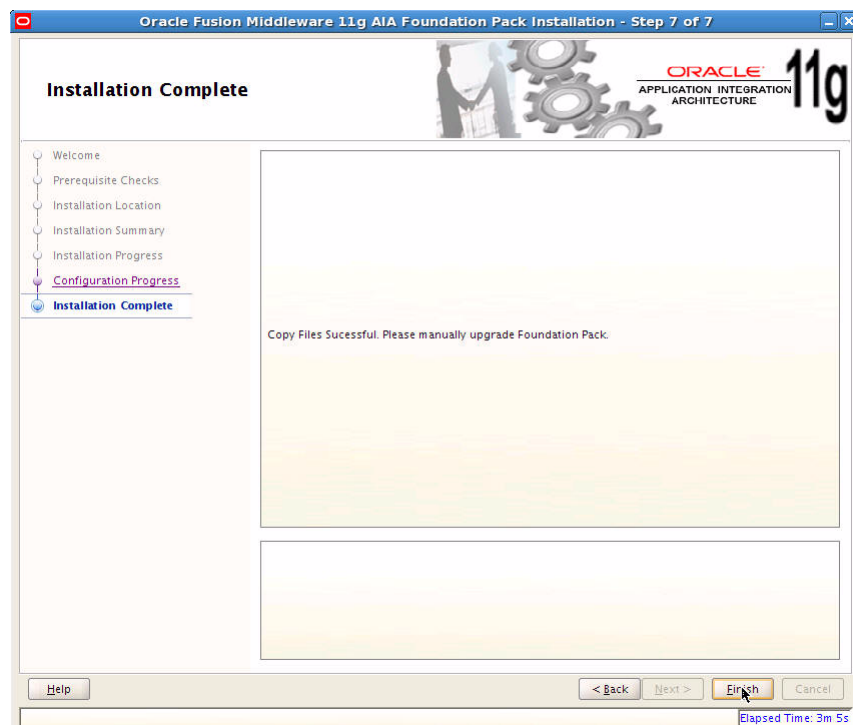
11. The Installation Progress page displays, as shown in [Figure 9–6](#).

Figure 9–6 Step 5: Installation Progress

12. When all files have been copied, the AIA Installer updates the AIAInstallProperties.xml file with an updated version, as shown in [Figure 9–7](#). Click **Next**.

Figure 9–7 Step 6: Configuration Progress

13. The Installation Complete page displays, as shown in Figure 9–8. Click **Finish** to exit the AIA Installer.

Figure 9–8 Step 7: Installation Complete

9.3.2 Updating the AIA Environment

To update the AIA environment:

1. Source aiaenv.sh from <AIA_HOME>/aia_instances/<aia_instance>/bin.
2. Browse to the <AIA_HOME>/AIAFPUpdates/Update_AIAFP11114/config folder.
3. Execute the following script:

```
ant -f UpdateEnvironment.xml
```

9.3.3 Running the EOL Upgrade Utility

The Enterprise Object Library (EOL) Upgrade Utility upgrades the latest EOL with customizations made to the previous EOL.

After running, the EOL Upgrade Utility generates the following reports:

- EOLMergeUtility_AutoLog_<TimeStamp>.log
Captures all automated (trivial) merges.
- EOLMergeUtility_ManualActionLog_<TimeStamp>.log
Captures all conflicts and the manual actions the user must perform.
- EOLMergeUtility_DetailedLog_<TimeStamp>.log
Captures a detailed merge report, including post-merge validations.

The reports are generated in a default location of \${AIA_INSTANCE}/logs/EOLUpgrade.

To generate these reports to a different directory, perform the following task before running the utility.

To define your own EOL Upgrade Utility report generation location:

1. Browse to the <AIA_HOME>/AIAFPUpdates/Update_AIAFP11114/config folder.
2. Open EOLUpgradeUtility.xml in edit mode.
3. Modify the last argument of the Java task to reflect the desired report generation location.

```
<arg value="<Desired Location of the Report>"/>
```

To run the EOL Upgrade Utility:

We recommend running the utility using the following two-step process.

1. Run the EOL Upgrade Utility in Report mode.

In Report mode, reports are generated and the utility does not perform the merge. Refer to these reports to preview the changes that will be made when you run the utility in Upgrade mode to perform the actual merge.

Once you have run the utility in Report mode, we suggest that you perform all of the changes suggested in the generated EOLMergeUtility_ManualActionLog_<TimeStamp>.log before running the utility in Upgrade mode.

For information about how to address manual changes suggested in the EOLMergeUtility_ManualActionLog_<TimeStamp>.log, see "Step 5: Review the Output File" in *Oracle Fusion Middleware Migration Guide for Oracle Application Integration Architecture*.

- a. Source aiaenv.sh from the <AIA_HOME>/aia_instances/<aia_instance>/bin.

Note: Sourcing aiaenv.sh is required as the file has been updated during steps covered in [Section 9.3.2, "Updating the AIA Environment"](#) and some environment variables must be set again.

- b. Browse to the <AIA_HOME>/AIAFPUpdates/Update_AIAFP11114/config folder.
- c. Execute the following script

```
ant -f EOLUpgradeUtility.xml
```

2. Run the utility in Upgrade mode to perform the actual merge process.

If you have already addressed the manual changes suggested in the EOLMergeUtility_ManualActionLog_<TimeStamp>.log report generated in step 1, the report should not contain any issues after running the utility in Upgrade mode. This will indicate that the merge was completed successfully.

- a. Access the <AIA_HOME>/AIAFPUpdates/Update_AIAFP11114/config folder.
- b. Open the EOLUpgradeUtility.xml file in edit mode.
- c. To run the utility in Upgrade mode, modify the <arg value="report" /> argument of the Java task as follows:

```
<arg value="upgrade" />
```

- d. Save the file.
- e. Access the <AIA_HOME>/AIAFPUpdates/Update_AIAFP11114/config folder.
- f. Execute the following script:

```
ant -f EOLUpgradeUtility.xml
```

9.3.4 Running the Upgrade Script

Perform the following steps to upgrade to Foundation Pack 11g Release 1 (11.1.1.40).

To run the upgrade script delivered with Foundation Pack 11g Release 1 (11.1.1.4.0):

1. Ensure that the SOA server is running.

To start the SOA server, access the Oracle WebLogic Server Administration Console: <http://<admin server hostname>:<admin server port>/console>. Browse to **Environment, Servers**. Select the **Control** tab. Start the <soa_server>.

2. Browse to \$AIA_INSTANCE/config.
3. Open the AIAInstallProperties.xml file in edit mode.

4. Add the following code under the XPath **/properties/fp/server**. If you are unclear regarding the XPath, see the AIAInstallProperties.xml template located in \$AIA_HOME/AIAFPUpdates/Update_AIAFP11114/templates and perform this update as shown in the template.

- For a single node:

```
<jndiurl>t3://<managedserverhostname>:<managedserverport></jndiurl>
```

- For clustering, provide the required information for all nodes, using a comma as a delimiter:

```
<jndiurl>t3://<managedserverhostname1>:<managedserverport1>,  
<managedserverhostname2>:<managedserverport2>,<managedserverhostname3>:  
<managedserverport3>, ..... </jndiurl>
```

5. Browse to `$AIA_INSTANCE/AIAMetaData/config`.

6. Open the `AIAConfigurationProperties.xml` file in edit mode.

7. Add the following SystemConfiguration Properties under the comment line `<!-- System configuration properties -->`:

```
<Property name="Routing.ActiveRuleset">DEFAULT</Property>
<Property name="O2C.EnablePriceListMapping">false</Property>
```

8. Search for the ModuleConfiguration with the name **ErrorHandler**. In the ErrorHandler ModuleConfiguration, perform the following steps:

- a. Change property name EH.UID to *EH.USERNAME*.

- b.** Change property name EH.PWD to *EH.PASSWORD*.

For security reasons, change the value of EH.PASSWORD to *fp.server.password*.

- c.** Add the following properties:

```
<Property name="EH.B2B.HOSTNAME">$managedserverhostname$</Property>
<Property name="EH.B2B.PORT">$managedserverport$</Property>
```

For a single node, add:

```
<Property name="EH.JNDIURL">t3://<managedserverhostname>:  
<managedserverport>  
</Property>
```

For clustering, provide the required information for all nodes using a comma as a delimiter:

```
<Property name="EH.JNDIURL">t3://<managedserverhostname1>:  
<managedserverport1>,<managedserverhostname2>:<managedserverport2>,<br><managedserverhostname3>:<managedserverport3>, ..... </Property>
```

- d. Change the property FROM.EMAIL.ID value from Email:AiaAdmin@oracle.com to *Email:AiaAdmin@server.com.*

9. Source aiaenv.sh from <AIA_HOME>/aia_instances/<aia_instance>/bin.

10. Browse to the <AIA_HOME>/AIAFPUupdates/Update_AIAFP11114/config folder.

- 11.** Execute the following script:

```
ant -f UpdateAIAFP11114.xml
```

12. Because you are manually invoking the AIA Installation Driver (AID), you are prompted for an administrator username and password. Provide valid credentials.
13. Validate the upgrade.
 - a. Access the Oracle Enterprise Manager (<http://<admin server hostname>:<admin port>/em/>) and log in using the valid credentials.
 - b. Navigate to Farm. Expand Farm_soa_domain, SOA, soa infra in the left panel. Navigate to Deployed Composites in the main panel and verify that you can view the following composites:

AIAB2BErrorHandlerInterface

AIAB2BInterface

ReloadProcess

AIAAsyncErrorHandlingBPELProcess

AIAReadJMSNotificationProcess

AIAErrorTaskAdministrationProcess
 - c. Navigate to the AIA Home Page (<http://<managed server hostname>:<managed server port number>/AIA/>) and log in using valid credentials. Navigate to the Composite Application Validation System, Project Lifecycle Workbench, and the AIA setup pages. Verify that the UI tabs for each application are accessible.

9.4 Copying Project Lifecycle Workbench Data to a New Foundation Pack 11g Release 1 (11.1.1.4.0) Instance

Perform this procedure only if you have performed a clean upgrade and need to copy Project Lifecycle Workbench data from your existing Foundation Pack 11g Release 1 (11.1.1.2.0) instance to your new Foundation Pack 11g Release 1 (11.1.1.4.0) instance.

Caution: If you have performed an in-place upgrade from Foundation Pack 11g Release 1 (11.1.1.2.0) to Foundation Pack 11g Release 1 (11.1.1.4.0), do not to perform this procedure.

To copy Project Lifecycle Workbench Data from an existing Foundation Pack 11g Release 1 (11.1.1.2.0) instance to a new Foundation Pack 11g Release 1 (11.1.1.4.0) instance:

1. Run PLWExport.sh to export projects from the Foundation Pack 11g Release 1 (11.1.1.2.0) database.

For more information about running PLWExport.sh, see "How to Export Seed Data" in *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack*.

2. Point the Foundation Pack 11g Release 1 (11.1.1.2.0) installation to the 11g Release 1 (11.1.1.4.0) database.

To do this, you will change the JNDI URL, login username, and password values in the Foundation Pack 11g Release 1 (11.1.1.2.0) installation to point to the 11g Release 1 (11.1.1.4.0) database:

- a. Locate `AIAInstallProperties.xml` in `$AIA_INSTANCE/config`. This file stores the JNDI URL value. Change the `<jndiurl>` value to point to the Foundation Pack 11g Release 1 (11.1.1.4.0) database.

Example 9–1 `<jndiurl>` Value in `AIAInstallProperties.xml`

```
<fp>
  <version>11.1.1.4.0</version>
  <server>
    <adminhostname>sdc60026sems.us.oracle.com</adminhostname>
    <adminport>7001</adminport>
    <domainname>soa_domain</domainname>
    <username>weblogic</username>
    <password>weblogic#1</password>
    <servertype>Server</servertype>
    <soaserver>soa_server1</soaserver>
    <soaserverhostname>sdc60026sems.us.oracle.com</soaserverhostname>
    <soaserverport>8001</soaserverport>
    <jndiurl>t3://sdc60026sems.us.oracle.com:7001 </jndiurl>
  </server>
</fp>
```

- b. To encode and store the JNDI login username and password values, run `AIALifeCycleEncode.sh`. For example:

```
$AIALifeCycleEncode.sh -user <user name> -type jndi
```

Enter the password value when prompted.

Ensure that you include `-type jndi` so that, specifically, the JNDI username and password values are encoded and stored. The encoded JNDI username and password are stored in the Key and Properties files in `$AIA_INSTANCE/.configuration`.

- c. To encode and store the Project Lifecycle Workbench database login username and password values, run `AIALifeCycleEncode.sh`. For example:

```
$AIALifeCycleEncode.sh -user <PLW database user name>
```

Enter the password value when prompted.

Specifically, database username and password values are encoded and stored. The encoded Project Lifecycle Workbench user name and password are stored in the Key and Properties files in `$AIA_INSTANCE/.configuration`.

3. Run `PLWImport.sh` to import the projects you exported from the Foundation Pack 11g Release 1 (11.1.1.2.0) database in step 1.

For more information about running `PLWImport.sh`, see "How to Import Seed Data" in *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack*.

4. Access the Project Lifecycle Workbench to verify the data import.

For more information about using the Project Lifecycle Workbench, see "Working with Project Lifecycle Workbench" in *Oracle Fusion Middleware Developer's Guide for Oracle Application Integration Architecture Foundation Pack*.

Licenses

Other product licenses included with Foundation Pack are:

- Oracle Business Process Publisher 11g.

Restrictions: None. Enables viewing of reference process models.

- Oracle Service Registry (OSR)

Restrictions: A Restricted Use License is included.

You can use OSR for viewing and consuming Oracle AIA Content (Oracle Intellectual Property) available with your licensed AIA Foundation Pack and/or Process Integration Packs. The pre-built AIA content includes: Services/Binding Templates (WSDL), Schemas (XSD) and Transforms (XSLT/XQUERY)

You can make limited modifications and extensions to the AIA content only in accordance with the AIA extension mechanism, and not for other purposes:

- Adding custom attributes to the AIA schemas.
- Adding corresponding transforms for the custom attributes.
- Modifying out-of-the-box AIA services taxonomy/categorization.
- Modifying out-of-the-box AIA endpoint binding templates.
- Adding new taxonomies or models to categorize (1) the out-of-the-box and (2) the extended Oracle AIA content.

Any of the following conditions would require the FUL of OSR with AIA:

- Adding custom business services.
- Adding new operation to an existing service.
- Registering your own in-house services.
- Adding new taxonomies or models to categorize customer-specific content (from 1, 2, 3 above).
- Modifying attributes and other metadata in OSR other than through the AIA extension mechanism.

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