**Oracle® Application Integration Architecture
Foundation Pack 11*g* Release 1 (11.1.1.2.0):
Installation Guide**

Release 1 (11.1.1.2.0)

Part No. E20211-01

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Oracle Application Integration Architecture Foundation Pack 11*g* Release 1 (11.1.1.2.0): Installation Guide

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Contents

Chapter 1: Understanding the Oracle AIA Foundation Pack Installation Process

This guide provides an overview of the Oracle Application Integration Architecture (AIA) installation process.

Using this Guide

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

1. Search for *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Installation Guide* in <u>My Oracle Support</u> and download the latest version.

2. Search for *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Known Issues and Workarounds* document in <u>My Oracle Support</u> and download it.

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. Deploy Foundation Pack Demo

10. Install Reference Process Models.

Other Oracle AIA Guides

- *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Migration Guide for Foundation Pack 2.X to Foundation Pack 11GR1 (11.1.1.2.0)*

- *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Getting Started with the Oracle AIA Foundation Pack and Demo*

- *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Concepts and Technologies Guide*

- *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Development Guide*

- *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Infrastructure Components and Utilities Guide*

- *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Reference Process Model Guide*

Additional Resources

The following resources are also available:

Resource	Location
Oracle Application Integration Architecture: Product-to-Guide Index	My Oracle Support: https://support.oracle.com/
Known Issues and Workarounds	My Oracle Support: https://support.oracle.com/
Release Notes	Oracle Technology Network: http://www.oracle.com/technology/
Documentation updates	My Oracle Support: https://support.oracle.com/

The Basics

AIA 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 Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Infrastructure Components and Utilities Guide.*

AIA Installer is platform independent. Some of the platforms it can run on include.

- Linux (x86)

- Windows (32-bit)

- Solaris SPARC (64-bit)

- IBM AIX Based Systems (64-bit)

- HP Itanium-UX 11i (64 bit)

Software and Hardware Requirements

This section details the software and hardware requirements for Foundation Pack.

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 Oracle Fusion Middleware Supported System Configurations.

2. Oracle Enterprise Repository 11gR1 (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) 11.1.1.2.0 (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 runtime, a Restricted Use License (RUL) of OSR is included. The RUL allows you to view/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 check Appendix - Licenses.

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

5. Apply the AIA-Foundation Pack 11.1.1.2.0 patch 9717829

    a. If you are installing a fresh instance of AIA Foundation Pack 11.1.1.2.0 on SOA 11.1.1.3.0, download the AIA-Foundation Pack 11.1.1.2.0 patch 9717829 and follow the instructions in the document "Installing a fresh instance of AIA FP 11gR1 PS2 on Oracle SOA Suite 11g PS2" before you install AIA Foundation Pack 11g Release 1 (11.1.1.2.0). After installation, apply the patch again as described in readme.txt that comes with the patch.

    b. If you have upgraded Oracle SOA Suite from 11.1.1.2.0 to 11.1.1.3.0 which already has AIA Foundation Pack 11.1.1.2.0 installed, download the AIA-Foundation Pack 11.1.1.2.0 patch 9717829 and apply the patch following the instructions in the readme.txt that comes with the patch.

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

Hardware Requirements

- To install and deploy the AIA Foundation Pack 11g Release 1 (11.1.1.2.0) you need at least 2 GB of space.

- On the server where AIA Foundation Pack 11g Release 1 (11.1.1.2.0) is being deployed you require of 4 GB of the available memory.

Installation and Deployment Topologies

There are several installation and deployment topologies possible using AIA Installer. Choose the installation that best suits your need. Refer to the whitepaper *AIA Installation and Deployment - Strategies, Topologies and Flexibilities* on www.oracle.com for more details.

Installation Process

Depending on whether you want to install Foundation Pack either by using AIA Installer or by running manual scripts, read either Installing and Deploying Using AIA Installer or Installing and Deploying using Manual Steps. If you are installing AIA for the first time, use AIA Installer.

Chapter 2: Preparing for Foundation Pack Installation

This chapter provides an overview of Foundation Pack screens in AIA installer and discusses how to complete pre-installation configurations.

Search for *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Installation Guide* in My Oracle Support and download the latest version.

Search for Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Known Issues and Workarounds document in My Oracle Support and download it.

Collecting Field Values Information for Installation and Deployment of Foundation Pack

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

Installation Location Screen

On this screen you set the home directory for installation and select the products to install.

Field	Description
AIA Home	This is the name of Foundation Pack home directory. This folder should be empty. Do not include spaces in the name and do not include any special characters apart from underscore(_)Example: *AIA30* AIA Home directory name is_____
AIA Home Path	This is the full file path where the AIA Installer installs the Foundation Pack product files. Give an empty directory location. AIA Home Path is _____
AIA Instance Name	If you are doing multiple deployments of AIA for the same installation, AIA Instance Name helps you identify these different AIA deployments. If you are installing and deploying Foundation Pack on this server for the first time, provide any 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.

Field	Description
	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 _____

Note: Do not use existing home directories if you want to reinstall Foundation Pack. You must uninstall Foundation Pack using instructions provided in [Uninstalling Oracle AIA](#) chapter and then install using instructions provided in the respective installation chapters.

SOA Server Details Screen

All artifacts associated with the Foundation Pack infrastructure components will be deployed to the SOA Suite server. This screen contains the following fields:

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.oracle.com.* The Admin Host Name is _____
Admin Port	To find this value contact WebLogic administrator. Example: *7001*. The Admin Port is _____
Domain Name	This is WebLogic server domain corresponding to the Admin Server. Example: *domain1* The Domain Name is _____
Admin User Name	This value is the WebLogic admin username. To find this value contact your WebLogic administrator. The User Name is _____
Admin Password	This value is the WebLogic admin password. To find this value contact your WebLogic administrator. The password is _____
Managed Server	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 manager server from the list. If you are deploying AIA to a SOA cluster, you should select the cluster name in this field. The Managed Server is _____ **Note:** AIA Foundation Pack creates JMS persistent store on each individual managed server. To use the automatic JMS failover feature,

Field	Description
	manually configure the file store to point to a folder in the shared memory location. For information on how to do this, refer to Oracle® Fusion Middleware Enterprise Deployment Guide for Oracle SOA Suite 11g Release 1 (11.1.1).
Managed Port	This field gets updated automatically once you select the managed server. If you have configured a SOA Cluster the SOA Cluster name appears in the list.
Remote Installation	If you are deploying AIA 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 Installer allows you to install AIA (i.e. create AIA HOME) on the machine where you have launched the installer and deploy AIA products to a remote server mentioned in the Admin Host Name field. If you deploying AIA on the server where you are launching the installer, leave this field unchecked.
Local JDEV Home	Once you select Remote Installation option, you will be prompted for Local JDeveloper Home. Browse and select the JDeveloper Home from your local machine. You can leave the field empty if you are not doing remote deployment. The Local JDev Home is _____
Cluster Installation	If you are deploying AIA on a SOA Cluster check this check box. You should have chosen the cluster name in the managed server field.
SOA Home	Once you select Cluster Installation option, you will be prompted for SOA Home. Browse and select the SOA Home from your local machine. You can leave the field empty if you are not doing cluster deployment. The SOA Home is _____
Cluster Proxy URL	The field will be 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 webservers that ultimately reach the SOA managed servers. The Cluster Proxy URL is _____
Proxy Port	This field will be enabled only when you select the cluster installation option. This value is the port number of the proxy server. The Proxy Port is _____

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

Note: Before you deploy AIA on SOA cluster, you need to configure the SOA Cluster. For instructions on configuring the SOA Cluster refer to Oracle Fusion Middleware – Enterprise Deployment Guide for Oracle SOA Suite 11g to set up the SOA Cluster.

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

When you click next, AIA installer prompts you to enter Node Manager credentials. These values are normally the same as Admin Server username and password and will be the default values. If they are different, change the values. If you are deploying on a SOA cluster you need to furnish the Node manager credentials for each node in the cluster. You will be prompted to provide these details for every node in the cluster.

Field	Description
Node Manager Username	This is Node Manager Username. To find this value contact your WebLogic administrator. The Node Manager Username is _____
Node Manager Password	This is Node Manager Password. To find this value contact your WebLogic administrator. The Node Manager Password is _____

AIA Database Details Screen

You need to configure 5 database schemas for installation of AIA. These schemas are displayed in the screen. AIA Instance name that you have provided will be prefixed to the schema names. The following are the AIA related schemas:

- **<INST>_AIA:** Error handling setup information, System setup information, CAVS data and so on.

- **<INST>_XREF:** To hold the cross-reference information.

- **<INST>_AIALIFECYCLE:** To hold information created for AIA project lifecycle workbench application.

- **<INST>_JMS:** For JMS usage in AIA.

- **<INST>_AIAEBOD:** To be used by AIA EBO designer application.

Note: Though the details for EBO designer are collected, the application is not included in the final release of the product. You can drop <INST>_AIAEBOD schema after the installation of Foundation Pack.

To configure these schemas you need provide the JDBC connection details, the required password for that schema and the SYS user credentials (if you want AIA Installer to create the schema and underlying tables). You need to keep the information ready before you run the installer.

When you configure the schemas you can

peparing for Foundation Pack Installation

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

- Choose to connect to an existing AIA schema (created manually using scripts or created by a previous installation). 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 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 5 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 RAC databases.

Enter Custom JDBC URL

Fields	Description
Enter Custom JDBC URL	When you check 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

Fields	Description
Host Name	To find this value, contact the database administrator. Example: *server1.oracle.com*. 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 tnsnames.ora for that database. To find this value, contact the database administrator. Example: *orcl*. The Service Name is_____

Schema Details

When entering 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 a can be different physical database server. However, AIA recommends that it be on a different server than the one SOA Suite uses.

Connect to Existing Schema

Fields	Description
Username	This value is the database username. To find this value, contact the database administrator. Example: ***apps***. 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. The Username is _____
Password	To find this value, contact the database administrator. The Password is _____

Or

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	To find this value, contact the database administrator. The username should have system DBA privileges. Example: ***sys***. The Admin User is _____
Admin Password	To find this value, contact the database administrator. The Admin Password is _____
Role	Specify a role for the user you are creating. It can be either normal or an administrator. Example: ***SYSDBA***. The Role is_____
Default Tablespace and *Temporary Tablespace*	If you do not enter Default and Temporary Tablespace values, the schemas and the artifacts would be created in database defaults.

Metadata Service Repository Screen

This is the location where AIA Metadata Artifacts will be stored. Though the screen contains multiple fields, you need to provide only the password. Data in other fields will normally be populated automatically. If it does not, then you need to enter the data manually. The screen contains the following fields:

Field	Description
MDS Repository URL	This is where the MDS repository resides. This will be the same MDS partition used by SOA Installation.
MDS Username	This value is MDS Admin Username.
MDS Password	To find this value, contact the MDS administrator. The MDS Admin Password is _____

Oracle Enterprise Repository Details Screen (Optional)

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

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

During AIA Installation, provide the following Oracle Enterprise Repository-related information when prompted by the AIA Installer. The screen contains the following fields:

Field	Description
OER Repository URL	This value is typically the machine name, port number on which OER is installed. Provide URL in the format Example: *http://<hostname>:<port>/oer*. The Enterprise Repository 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 _____

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

For more information about adopting Oracle Enterprise Repository after AIA has been installed, see *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Development Guide,* "Harvesting Oracle AIA Content".

Performing Pre-Installation Configurations

The following recommended configurations optimize Oracle SOA Suite performance and enable your AIA implementation to run smoothly.

Configuring JVM Parameters

To configure JVM parameters:

1. Navigate to **<Middleware home>/user_projects/domains/<domain_name>/bin**.

2. For **Linux** update the following parameters in the **setDomainEnv.sh** file. Search for the string **USER_MEM_ARGS** and modify as necessary.

   - USER_MEM_ARGS="-Xms2048m -Xmx2048m -XX:PermSize=256m -XX:MaxPermSize=512m -XX:AppendRatio=3 -XX:NewSize=1228m -XX:MaxNewSize=1228m -XX:SurvivorRatio=10"

3. For **Windows** update the following parameters in the **setDomainEnv.cmd** file. Search for the string **USER_MEM_ARGS** and modify as necessary.

   - USER_MEM_ARGS=-Xms1024 –Xmx1024 -XX:PermSize=256m -XX:MaxPermSize=256m -XX:AppendRatio=3

Important: If the above parameters are not present in those files, then add the above parameters under the string *"# IF USER_MEM_ARGS the environment variable is set"*.

Note: These are recommended values while using Sun JVM. Actual values that you set depend on your system configurations. When running on dedicated hosts, you can set the JVM heap size as high as possible. Higher value results in better performance. However this number is constrained by the operating system's addressable memory space.

For instance, in Windows, this default addressable memory is normally 2GB. Rrefer to http://msdn.microsoft.com/en-us/library/aa366778(VS.85).aspx#memory_limits.

If you want to assign more memory in USER_MEM_ARGS above, then consider increasing the Windows operating system default to 3GB.
http://www.microsoft.com/whdc/system/platform/server/PAE/PAEmem.mspx.

You need to reconsider using the above option when running on a windows machine with a lower memory say 4GB, because it can lower the memory of your operating system.

You can consider using JRockit for windows machines with low memory (For example 3 or 4 GB memory). For JRockit the recommended values are *USER_MEM_ARGS=-Xms1536m -Xmx1536m -Xgcprio:throughput*

Copying Third Party Jars to JDK Extension Directory and Configuring SOA Parameters (Applicable only for IBM AIX Based Systems)

To copy third party jars to JDK extension directory:

1. Copy the **webserviceclient+ssl.jar** file from **$SOA_HOME/wlserver_10.3/server/lib/** to **jdk_home/jre/lib/ext**.

2. Copy **soa-ibm-addon.jar** file from **$SOA_HOME/Oracle_SOA1/soa/modules to Installer_dir/Disk1/stage/jlib/ext**.

To configure SOA parameter:

1. Open **$SOA_HOME/Oracle_SOA1/bin/ant-sca-compile.xml** in a text editor.

2. Search for **Rules SDK2** block.

```
<!--  Rules SDK2   -->
<fileset dir="${oracle.home}/soa/modules">
<include name="oracle.rules_11.1.1/migrator.jar" />
<include name="oracle.rules_11.1.1/rl.jar" />
<include name="oracle.rules_11.1.1/rulesdk2.jar" />
</fileset>
```

3. Add soa-ibm-addon.jar to the block. It should finally appear something like this.

```
<!--  Rules SDK2   -->
<fileset dir="${oracle.home}/soa/modules">
<include name="oracle.rules_11.1.1/migrator.jar" />
<include name="oracle.rules_11.1.1/rl.jar" />
<include name="oracle.rules_11.1.1/rulesdk2.jar" />
<include name="soa-ibm-addon.jar"/>
</fileset>
```

Enabling Remote JDBC Connection in WebLogic Server

To enable remote JDBC connection in WebLogic Server:

1. Go to the domain (for example: soadomain), and open the file **setDomainEnv.sh**.

2. Search for *WLS_JDBC_REMOTE_ENABLED="-Dweblogic.jdbc.remoteEnabled=false"*

3. Set it to **true**.

4. Restart Admin server.

Increasing Memory to avoid Compilation Errors

To avoid out-of-memory errors during compilation of a SOA composite application, you need to increase the following memory settings.

To increase memory settings:

1. Open the **ant-sca-compile.xml** file in the **SOA_HOME/bin** directory.

2. Under the **scac** element, increase the following memory settings.

    `<jvmarg value="-Xms2048m"/>`

    `<jvmarg value="-Xmx2048m"/>`

    `<jvmarg value="-XX:PermSize=32m"/>`

    `<jvmarg value="-XX:MaxPermSize=256m"/>`

3. For Windows change the following memory settings to.

    `<jvmarg value="-Xms1536m"/>`

    `<jvmarg value="-Xmx1536m"/>`

    `<jvmarg value="-XX:PermSize=32m"/>`

    `<jvmarg value="-XX:MaxPermSize=256m"/>`

Note: These are recommended values while using Sun JVM. Actual values that you set depend on your system configurations. When running on dedicated hosts, you can set the JVM heap size as high as possible. Higher value results in better performance. However this number is constrained by the operating system's addressable memory space.

Verifying ADF Libraries

To verify ADF libraries:

1. Open WebLogic console.

2. Navigate to **Control** and under **Deployments** check whether you can see the following ADF libraries

    - adf.oracle.domain
    - adf.oracle.domain.webapp

If you do not see these libraries, then you need to configure ADF libraries by installing Java Required Files (JRF) as documented here,
http://download.oracle.com/docs/cd/E15523_01/doc.1111/e13925/configure.htm#CACJEEIA

Setting up Timezone

Configure timezone related startup parameters before starting the servers.

To set up a timezone:

1. Login to WebLogic console.

2. Navigate to **Environment**, **Servers**, **soa_server1** (or your SOA Server).

3. Click the **Server Start** tab.

4. In the **Arguments** field enter the following value.

   -Duser.timezone=XYZ

   Where XYZ should be a valid timezone value in the database. Before you enter the value, check the timezone value in the AIA database.

   To check the timezone value, connect to AIA database and run the following command:

   ALTER SESSION SET TIME_ZONE = '<Your Timezone>';

   For example ALTER SESSION SET TIME_ZONE = 'America/New_York'

   If it does not throw any error, use the value. If it throws an error, apply DST patches for the database. For example Note 975450.1 - DSTv13 update for the Oracle Database.

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 ListenAddress='myhost.xyz.com' ListenPort='5555'

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.

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

Prerequisites for Cluster Installation

To perform cluster installation:

1. Copy **aia.jar** available in the Installation CD under **Disk1/misc/lib**.

2. Copy **parlayx.jar** available under **SOA_HOME/communications/modules/oracle.sdp.client_11.1.1**.

3. Navigate to **SOA_HOME/soa/ modules/oracle.soa.ext_11.1.1** and paste those jars.

4. Run the command

   ```
   ant
   ```
5. Restart the server.

6. Repeat the process on all nodes of the SOA cluster.

7. Open the **<WebTier_HOME>/instances/<instances_name>/config/OHS/ohs1/mod_wl_ohs.conf** file.

8. 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>
   ```
9. Add the following code if you are also installing Foundation Pack demo.

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

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

   <Location
   /WebServices_WebLogicFusionOrderDemo_CreditCardAuthorization>
   SetHandler weblogic-handler
   WebLogicCluster
   ```

```
<machine1_hostname>:<port>,<machine2_hostname>:<port>
WLLogFile /tmp/web_log.log
</Location>

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

10. Navigate to **<WebTier_HOME>/instances/<instances_name>/bin**

11. Execute **./opmnctl stopall** to stop the server.

12. Execute **./optmnctl startall** to restart the server.

Creating AIA schemas (Optional)

When you create new schemas, AIA 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 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 Installation bundle under **Disk1/misc/sql** of your AIA 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.

> **Note:** Do not run EBO designer scripts createEBODesignerSchema.sql or populateEBODesignerSchema.sql. These scripts are included in the install media, but they are not used in the current version.

Administering MDS Tablespace

AIA loads lot of data to MDS as a part of deployment. The default tablespace allocated may not be sufficient when multiple repetitive AIA 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 might still see this error. The tablespace release is not synchronous, and you must run command ALTER TABLE table_name SHRINK SPACE.

Chapter 3: Installing and Deploying Using AIA Installer

This chapter discusses how to perform the following modes of Foundation Pack installation.

- Basic Installation

- Cluster Installation

- Remote Installation

- Silent Installation

- Copy only AIA Files

Note: There are several installation and deployment topologies possible using AIA Installer. Choose the installation that best suits your need. Refer to the whitepaper *AIA Installation and Deployment -Strategies, Topologies and Flexibilities* on www.oracle.com for more details.

Search for *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Installation Guide* in My Oracle Support and download the latest version.

Search for Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Known Issues and Workarounds document in My Oracle Support and download it.

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 Foundation Pack. Keep the completed worksheet of Foundation Pack screens ready before you launch the Installer.

Important: 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.

Launch the Oracle AIA Installer

To launch the Oracle AIA Installer:

1. Navigate to **cd/Disk1**.

2. Follow the launch instructions for your platform.

Platform	To launch the Oracle AIA Installer:
Linux x86 Solaris SPARC (64-bit) HP-UX 11i (64 bit)	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 (32-bit)	Double-click setup.exe
IBM AIX Based Systems (64-bit)	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> -novalidation`

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

4. Click **Next.**

Check Prerequisites

To confirm whether the prerequisites for installing AIA are met:

1. Review prerequisites in the **Prerequisite Checks** screen.

2. Click **Next**.

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 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**.

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, AIA installer prompts you to enter Node Manager credentials. These values are normally the same as Admin Server username and password and will be the default values. If they are different, change the values. If you are deploying on a SOA cluster you need to furnish the Node manager credentials for each node in the cluster. You will be prompted to provide these details for every node in the cluster.

Verify SOA Server Validations

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

To validate SOA server:

1. Wait till the installer validates the SOA server.

    Validation process takes a few minutes.

2. Click **Next**.

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.

   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 need to 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 you can click in the table and modify and hit 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 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 chose the schema type(s) provide the Database Connection Details and Schema Details for the selected schema type(s).

   If you have not configured all schema types unselect the already configured schema type(s) and select a new set of schema type(s) and provide information for the same. You need to provide information for all schema types.

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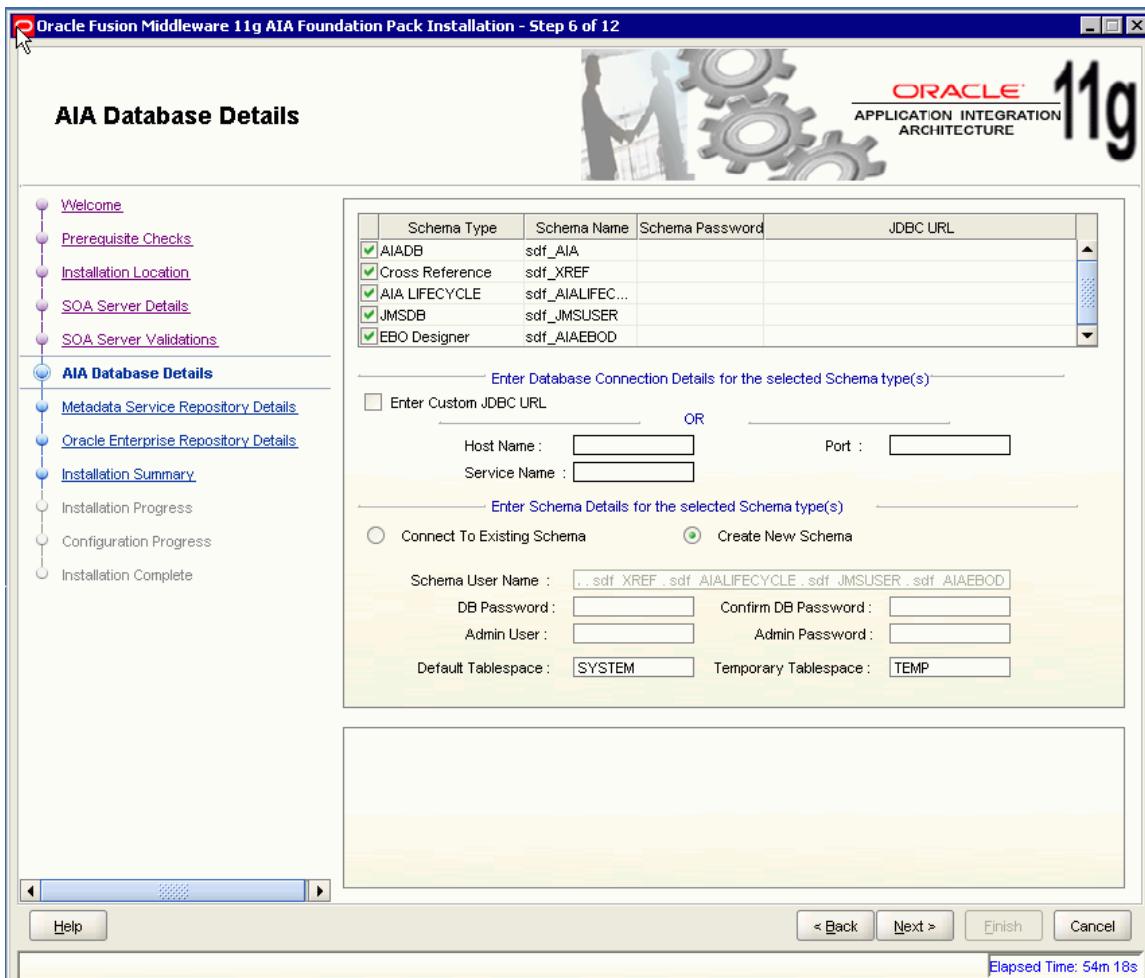
AIA Database Details screen

2. Click **Next**.

Specify Metadata Service Repository Details

To specify Metadata Service Repository details:

1. Enter Metadata service repository password in the **Metadata Service Repository Details** screen.

2. Click **Next**.

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.

2. Click **Next**.

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 for future silent installations and deployments. 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 servers to go up and down during the configuration phase while the Installer is running.

3. When installation process finishes without errors, the AIA 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 already have it open) and use the AIA Deinstaller to uninstall AIA.

After you uninstall, follow the cleanup steps in the Cleaning the Environment section to clean the environment and then attempt a fresh installation of AIA.

1. Click **Exit** to close the AIA Installer.

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

Performing Silent Installation and Deployment of Foundation Pack

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

To perform 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.

Tasks for silent installation of Foundation Pack.

1. Create Oracle Inventory

2. Create a Response File

3. Install Foundation Pack (Run Installation Scripts)

Creating Oracle Inventory

For UNIX based Installations

AIA 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 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.

Creating a Response File

Reponse 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 Installer wizard and click **Save** in the **Installation Summary** screen.

Securing Reponse 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.

Installing Foundation Pack (Running Installation Scripts)

To run the installation script:

1. Navigate to **cd/Disk1**

2. Run the following command to initiate installation:

Platform	To initiate installation:

Linux x86
 	
Solaris SPARC (64-bit)
 	
IBM AIX Based Systems (64-bit)
 	
HP-UX 11i (64 bit)
	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 (32-bit)	At the command line prompt, enter: `setup.exe -silent -responseFile <file_name with fully qualified directory path>`

- Once the Installation is triggered, users need not 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, you can view the <u>AIA Installation logs</u> as you would do for a UI based installation.

3. Verify the installation using steps in the <u>Verifying the Installation</u> chapter.

> **For information on** how to deploy custom built services, refer to *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Development Guide*, "Deploying Composites, "How to Deploy Custom Built Services".

Copying only AIA Files

You can also 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.

Launch the Oracle AIA Installer

To launch the Oracle AIA Installer:

1. Navigate to **cd/Disk1**.

2. Follow the launch instructions for your platform.

Platform	To launch the Oracle AIA Installer:

Linux x86
 	
Solaris SPARC (64-bit)
 	
IBM AIX Based Systems (64-bit).
 	
HP-UX 11i (64 bit)
	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 (32-bit)	Double-click setup.exe

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

4. Click **Next.**

Check Prerequisites

To check whether the prerequisites are met:

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

2. Click **Next**.

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.**

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 Installer displays the **Installation Complete Screen**.

4. Click **Exit** to close the AIA Installer.

Note: Deployment is not complete. If you need to deploy follow the manual steps to complete the installation.

Chapter 4: Installing and Deploying using Manual Steps

This chapter explains how AIA artifacts can be deployed manually without using the Installer.

Search for *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Installation Guide* in My Oracle Support and download the latest version.

Search for Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Known Issues and Workarounds document in My Oracle Support and download it.

You can opt for manual deployment of Foundation Pack when you want to:

- Deploy Foundation Pack using scripts.
- Deploy fully or partially custom-built AIA content.

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

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 etc) 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 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 exactly in 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.

For information on how to deploy custom built services, refer to *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Development Guide*, "Deploying Composites, "How to Deploy Custom Built Services".

Deploying Foundation Pack Using Scripts

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

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 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**.

Create AIA Instance

1. Navigate to **AIAHome/config**.

2. Update **AIAInstallProperties.xml** to reflect to target server details.

   a. Populate appropriate values for AIA Instance.

   b. Modify the **fp** tag and fill it with your environment properties.

   c. Check whether all the server properties are under server tag and all the db properties under db tab.

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

4. Run the following command to create an AIA Instance:

   ```
   ant -f AIACreateInstance.xml -
   DPropertiesFile=aiahome/config/AIAInstallProperties.xml
   ```

5. Copy the **AIAInstallProperties.xml** file to **AIA_HOME/aia_instances/<instance_name>/config directory**.

6. 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. To encrypt passwords:

7. Navigate to **AIA_HOME/infrastructure/install/AID folder**.

8. Execute the following command:

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

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

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

Chapter 5: Post Install Configurations

This capter discusses the following post install configurations

- Setting up JDeveloper.

- Increasing JDBC Connection Pool Size for Lifecycle Datasource.

- Setting up AIA Roles.

- Modifying passwords used for AIA deployment.

- Configuring AIA Error Logging for Cluster Environments.

Setting up JDeveloper 11g for AIA

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. AIADemo and AIASamples are available under AIAHOME/samples folder.

To modify AIA delivered processes:

1. Copy the content from AIAHOME to JDeveloper workspace.

   All AIA delivered composites are available in AIA_HOME and also include the JDeveloper projects (.jpr files). For example, AIADemo and AIASamples are available under AIAHOME/samples folder. You need to copy this content to JDeveloper workspace

2. Modify the composites as per your requirements.

3. Deploy the composites from JDeveloper context menu.

4. 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.

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 JDev 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.

- For CAVS

  - AIAApplicationUser

To add the roles:

7. Click the **New** button.

8. Enter the role in the Name field.

9. Click **OK**.

Now you need to assign goups to the roles.

To assign groups to a roles:

10. Click **Security Realms** on the left panel.

11. Click **myrealm** (or the realm with true in the Default Realm column) in the list.

12. Click the **Users and Groups** tab.

13. Click the **Users** tab.

14. Select the weblogic user (or add your own).

15. Select the **Groups** tab.

16. Move the desired groups to the chosen list.

17. Click **Save**.

Modifying Passwords Used for AIA Deployments

You can change the passwords that you have specified at any time after installation. 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.

To modify passwords:

1. Navigate to **<AIA Foundation Pack directory>/aia_instances/<Instance Name>/bin**.

2. Run the following command:

   ```
   source aiaenv.sh
   ```
3. Navigate to **AIA_HOME/util/UpdateStore**.

4. Run the following command:

   ```
   ant generate
   ```
   This pops up an interface that asks you to enter the username, the password and the Xpath of the password that you wish to change. That screen provides an example for the expected value of an Xpath.

Configuring AIA Error Logging for Cluster Environments

Note: This is applicable only when you are deploying AIA to SOA Cluster. Only those members in cluster that are up and running will be configured

To configure AIA error logging for cluster environments:

1. Navigate to
   <MW_HOME>/user_projects/domains/<DOMAIN_NAME>/config/fmwconfig/servers/<SERVER_NAME>

2. Open the **logging.xml** file.

3. Add the following tags in italics at the location that is illustrated below.

   <?xml version='1.0' encoding='UTF-8'?>

   <logging_configuration>

    <log_handlers>

   *<log_handler name='aia-log-error-handler'
   class='oracle.core.ojdl.logging.ODLHandlerFactory' level='TRACE:32'>*

   <property name='format' value='ODL-XML'/>

   *<property name='path'
   value='<MW_HOME>/user_projects/domains/<DOMAIN_NAME>/server
   s/<SERVER_NAME>/logs/aia-error.log'/>*

   <property name='maxFileSize' value='10485760'/>

   <property name='maxLogSize' value='104857600'/>

   </log_handler>

   *<log_handler name='aia-log-trace-handler'
   class='oracle.core.ojdl.logging.ODLHandlerFactory' level='TRACE:32'>*

   <property name='format' value='ODL-XML'/>

   *<property name='path'
   value='<MW_HOME>/user_projects/domains/<DOMAIN_NAME>/server
   s/<SERVER_NAME>/logs/aia-trace.log'/>*

   <property name='maxFileSize' value='10485760'/>

   <property name='maxLogSize' value='104857600'/>

   </log_handler>

   *<log_handler name='aia-log-debug-handler'
   class='oracle.core.ojdl.logging.ODLHandlerFactory' level='TRACE:32'>*

   <property name='encoding' value='UTF-8'/>

   *<property name='path'
   value='<MW_HOME>/user_projects/domains/<DOMAIN_NAME>/server
   s/<SERVER_NAME>/logs/aia-debug.log'/>*

   <property name='maxFileSize' value='10485760'/>

   <property name='maxLogSize' value='104857600'/>

   </log_handler>

4. Add the following tags in italics at the location that is illustrated below in the same file.

```
<logger name='oracle.sysman' level='NOTIFICATION:32' useParentHandlers='false'>

        <handler name='em-log-handler'/>

        <handler name='em-trc-handler'/>

 </logger>

  <logger name='oracle.aia.logging.error' level='NOTIFICATION:1'
useParentHandlers='false'>

        <handler name='aia-log-error-handler'/>

 </logger>

  <logger name='oracle.aia.logging.trace' level='NOTIFICATION:1'
useParentHandlers='false'>

        <handler name='aia-log-trace-handler'/>

 </logger>

  <logger name='oracle.aia.logging.debug' level='NOTIFICATION:1'
useParentHandlers='false'>

        <handler name='aia-log-debug-handler'/>

 </logger>
```

5. Navigate to **<DomainName>**, **Deployments** using the **Domain Structure** in the left pane.

6. Click **Install** on the right pane.

7. Choose the path **<AIA_HOME>/Infrastructure/Install/applications/AIALogApp.ear**.

8. Click **Next**.

9. Choose Install this deployment as an application

10. Choose Available targets for AIALogApp <soa_server>

11. Click **Finish**.

12. Perform the above steps in each node of the cluster.

13. Restart the servers.

Chapter 6: Verifying the Installation

This chapter discusses how to:

- Verify file creation and logs.

- Verify Foundation Pack installation.

Review Installation / Patch information

You can view the entire information related to installation using 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-install steps.

3. Navigate to CAVS, AIA Setup and AIA Lifecycle UI. Verify if the tabs are accessible.

Verifying File Creation and Logs

AIA 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 will 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.

Verifying Foundation Pack Installation

To verify Foundation Pack installation:

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

   Login using the appropriate user which you have created using the pre-install steps.

2. Navigate to **Farm**.

3. Expand **Farm_soa_domain**, **SOA**, **soa infra** in the left panel.

4. Navigate to **Deployed Composites** in the main panel and check whether you can view the following composites.

   - AIAB2BErrorHandlerInterface

   - AIAB2BInterface

   - ReloadProcess

   - AIAAsyncErrorHandlingBPELProcess

   - AIAReadJMSNotificationProcess

   - SendNotificationProcess

   - AIAErrorTaskAdministrationProcess

Chapter 7: Uninstalling Oracle AIA Foundation Pack

This chapter discusses how to Uninstall Foundation Pack.

Note: If you have multiple Foundation Pack Instances, then you need to manually uninstall the specific AIA instance that you want to undeploy. Refer the section 'Undeploying Foundation Pack manually'

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

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

Before launching the DeInstaller, ensure that SOA server is running.

Uninstalling Foundation Pack using AIA Deinstaller

To uninstall Foundation Pack using AIA Deinstaller:

1. Browse to **AIAHOME/oui/bin**.

2. Launch **Deinstaller**.

    Follow the launch instructions for your platform.

Platform	To launch the Oracle AIA Installer:
Linux x86 Solaris SPARC (64-bit) IBM AIX Based Systems (64-bit) HP-UX 11i (64 bit)	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 (32-bit)	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 is displayed.

5. Click **Deinstall**.

   AIA Deinstaller pops 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**.

6. Choose one of the options.

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

After you uninstall, follow the cleanup steps in the Cleaning the Environment section to clean the environment and then attempt a fresh installation of AIA.

Undeploying 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
   -DDeploymentPlan=$AIA_HOME/aia_instances/<Instance
   Name>/config/FPUnInstallDP.xml
   -DPropertiesFile=$AIA_HOME/aia_instances/<Instance
   Name>/config/AIAInstallProperties.xml
   -logfile $AIA_HOME/aia_instances/<Instance
   Name>/logs/FPUnInstall.log
   ```

After you uninstall, follow the cleanup steps in the <u>Cleaning the Environment</u> section to clean the environment and then attempt a fresh installation of AIA.

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 the above step for Datasources, JMS modules and JMS resources if they exist.

4. Navigate to **Security Realms**, 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.

Attempt a fresh installation. Ensure that you have completed all pre-installation steps before attempting the installation.

Verifying Uninstall Processes

To verify uninstallation:

1. Navigate to the AIA Console http://<server name>:<port number>/AIA/ and confirm that this page is not available.

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

    Login 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.

Chapter 8: Deploying the Foundation Pack Demo

Foundation Pack is shipped with a demo that can be deployed on top of any Foundation Pack installation. This demo illustrates the main concepts of Foundation Pack and is provided primarily for educational purposes.

This chapter discusses how to:

- Set the environment.

- Start the demo deployment.

- Verify the demo deployment.

For more information about the Oracle AIA Foundation Pack Demo, see *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Getting Started with the Oracle AIA Foundation Pack and Demo.*

Setting the Environment

The Foundation Pack Demo is deployed to the SOA Suite instance with a one-step script based on the ANT tool. For that purpose, you need to set the required environment variables first:

Platform	To set the environment variables:

Linux x86
 	
Solaris SPARC (64-bit)
 	
HP-UX 11i (64 bit)
	At the command line prompt, enter:
	
	`cd <AIA Foundation Pack`
	`directory>/aia_instances/<Instance Name>/bin`
	`source aiaenv.sh`

IBM AIX Based Systems (64-bit)	At the command line prompt, enter:
	
	`cd <AIA Foundation Pack directory>/`
	`aia_instances/<Instance Name>/bin`
	`. aiaenv.sh`

Microsoft Windows (32-bit)	At the command line prompt, enter:
	
	`cd <AIA Foundation Pack directory>\`
	`aia_instances\<Instance Name>\bin`
	`aiaenv.bat`

Starting the Demo Deployment

You may have to assign higher memory values in your JVM parameter settings for demo to deploy if you have not set the maximum possible value already. For more information see Configuring JVM parameters.

To deploy the demo to AIA, use the following command for your platform:

Platform	To start the demo deployment:
Linux x86 Solaris SPARC (64-bit) IBM AIX Based Systems (64-bit) HP-UX 11i (64 bit)	At the command line prompt, enter: ``` cd $AIA_HOME/samples/AIADemo/config ant -f deployDemo.xml ```
Microsoft Windows (32-bit)	At the command line prompt, enter: ``` cd %AIA_HOME%\samples\AIADemo\config ant -f deployDemo.xml ```

Performing Post Deployment Steps

Demo deployment is not complete. To complete, you need to perform the following manual post deployment steps

Import pre-seeded Composite Application Validation System test and simulator definitions:

1. Open http://<server>:<port>/AIA and log in.

2. Click the **Validation System** tab.

3. Click the "Import" button.

4. Select file AIADemo_CAVS_Definitions.xml from <AIA Foundation Pack directory>/samples/AIADemo/SeedData/CAVS_Definitions (you have to download that from the server first if not already done).

Create writable directory AIA_B2B/channels/GlobalChips/out in SOA domain home directory

E.g.
/slot/ems6409/oracle/Middleware/user_projects/domains/soa_domain/AIA_B2B/channels/GlobalChips/out

Create writable directory AIA_B2B/channels/Acme/in in SOA domain home directory

E.g.
/slot/ems6409/oracle/Middleware/user_projects/domains/soa_domain/AIA_B2B/channels/Acme/in

Enable Listening Channels

1. Open B2B Server console at http://<server>:<port>/b2b and login.

2. Navigate to Administration, Listening Channel and for each listening channel listed on the page.

3. Click **Listening Channel** row.

4. Click **Channel Attributes** sub-tab.

5. Select **Enable Channel**.

6.   Click **Save**.

Post Deployment Configurations

Issue 1: Demo Flow fails if SSL port is enabled on the SOA Server

Solution: In Enterprise Manager go to **SOA Administration**, **Common Properties**, set the **Server URL** property to http(s)://<server>:<port> (for example http://sdc60020sems.us.oracle.com:8024) so that the Server URL matches the first part of the endpoint URLs of the deployed SOA composites and restart the managed server

In WebLogic console, navigate to **Servers**, **soa_server1** and uncheck **Enable SSL Port** and restart the managed server.

Issue 2: Demo Flow might fail on low-end environments at the first attempt due to a transaction timeout.

Solution: In WebLogic console, navigate to **JTA** and Increase Timeout (default 30) to a value such as 120 secs and restart the managed server.

Verifying the Demo Deployment

To verify the deployment of the demo:

1.   Verify the installation log file in **<AIA Foundation Pack directory>/aia_instances/<Instance Name>/logs AIADemoInstall.log**.

2.   Access the following URL: **http:<server-name>:<port>/ StoreFrontModule/faces/home**.

3.   Select some items and add them to the cart. Total value should be less than 2000$.

4.   Select the **Checkout** link.

5.   Verify that you can log in to the application with the following username and password combination and that you can browse through the list of electronic items.

   ▪   Username: ngreenbe

   ▪   Password: *welcome1*

6.   Click **Submit Order**.

7.   Open **Enterprise Manager SOA Console** and verify multiple SOA compsites were launched and that they all ran successfully.

8.   Click **Logout** and **Continue Shopping**.

9.   Click **Registration**.

10.   On the registration screen provide the mandatory information and also first name and last name.

11. Click **Next** (4 times) and click **Register**.

12. Verify in the Enterprise Manager SOA console that 5 additional SOA composites were instantiated and executed successfully.

Chapter 9: Undeploying the Foundation Pack Demo

This chapter discusses how to:

- Set the environment.

- Start the demo undeployment.

- Verify the demo undeployment.

For more information about the Oracle AIA Foundation Pack Demo, see the *Oracle Application Integration Architecture Foundation Pack 11G Release 1 (11.1.1.2.0): Getting Started with the Oracle AIA Foundation Pack and Demo.*

Setting the Environment

The Foundation Pack Demo is undeployed from the SOA Suite instance with a one-step script based on the ANT tool. For this purpose, you need to set the required environment variables first:

Platform	To set the environment variables:

Linux x86
 	
Solaris SPARC (64-bit)
 	
HP-UX 11i (64 bit)
	At the command line prompt, enter:
	<pre>cd <AIA Foundation Pack
	directory>/aia_instances/<Instance Name>/bin
	source aiaenv.sh</pre>

IBM AIX Based Systems (64-bit)	At the command line prompt, enter:
	<pre>cd <AIA Foundation Pack directory>/
	aia_instances/<Instance Name>/bin
	. aiaenv.sh</pre>

Microsoft Windows (32-bit)	At the command line prompt, enter:
	<pre>cd <AIA Foundation Pack directory>\
	aia_instances\<Instance Name>\bin
	aiaenv.bat</pre>

Start the Demo Undeployment

If you have deployed the Foundation Pack demo on Oracle SOA Suite on Oracle Application Server, use the following command:

Platform	To start the demo un-deployment:
Linux x86	At the command line prompt, enter: <pre>cd $AIA_HOME/samples/AIADemo/config</pre>

Platform	To start the demo un-deployment:
Solaris SPARC (64-bit) IBM AIX Based Systems (64-bit) HP-UX 11i (64 bit)	`ant –f undeployDemo.xml`

Microsoft Windows (32-bit)	At the command line prompt, enter:
	
	`cd %AIA_HOME%\samples\AIADemo\config`
	`ant –f undeployDemo.xml`

You can check the log appearing on the screen for any errors during undeployment.

Verifying the Demo Undeployment

To confirm proper undeployment of the demo, verify that the following URL is not accessible: http:<server-name>:<port> /StoreFrontModule/faces/home.

Also verify all Demo related SOA composites don't show up in the list of deployed composites in the Enterprise Manager SOA Console.

Chapter 10: 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 and discusses how to:

- Manually upload reference process models to the Business Publisher.

- Configure the redirect servlet on Business Publisher.

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 a 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.

- Click a link (relative URLs) to access the relevant EBS that supports the process within the OER.
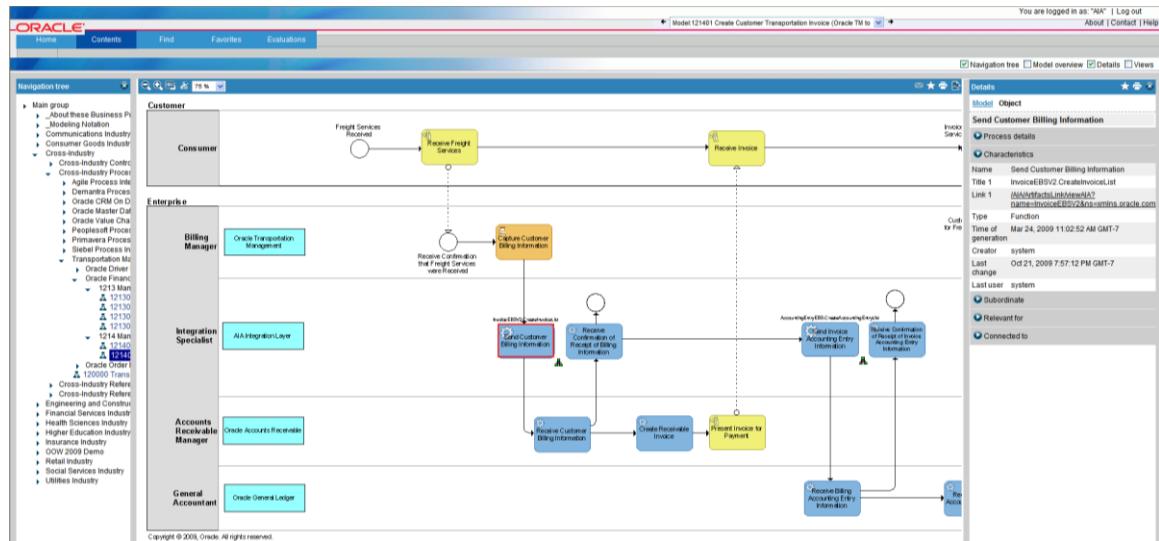
L3 Model with Technical Artifacts Viewed through Business Process Publisher
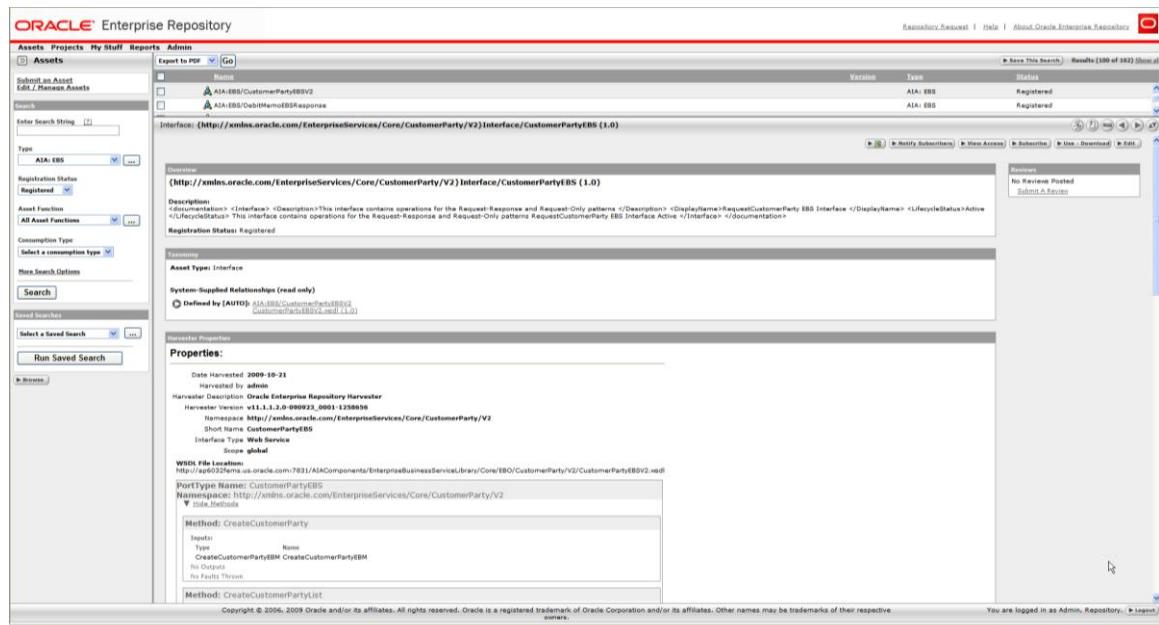
OER EBS for Artifact in L3 Model

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 will be

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.

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) and

- 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 install or separately from the AIA install. If installing OER separate from the AIA installation, the AIA redirect servlet will have to be manually deployed on the WebLogic server where AIA is deployed.

The first option for utilizing the reference process models is through OBPA. OBPA allows for full access to 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 only allows for 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 need to manually copy and upload 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.

Manually Uploading Reference Process Models to Business Process Publisher

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

1. Download the 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\).

   The following examples show the Business Process Publisher directory structure with the added Export directory.
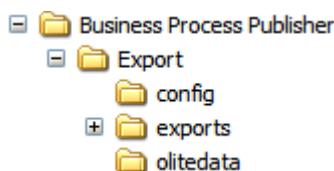
Directory Structure for Business Process Publisher with Export Directory

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

Contents of Business Process Publisher Folder

3. Run the setup.exe from C:\<directory Publisher unzipped to>\Business Process Publisher\.

   Accept all the defaults.

4. Restart your computer for the application to install successfully.

5. Log in to the Business Publisher and view the models (username = AIA and password = Welcome1).

Note: You can view the models at this point. You cannot link to the EBS artifacts until you complete the OER installation and configure both redirect servlets.

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.xm

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 following content.

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

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

5. Set the environment by running the following commands for your platform.

Platform	To set the environment variables:
Linux x86 Solaris SPARC (64-bit) HP-UX 11i (64 bit) IBM AIX Based Systems (64-bit)	`$AIA_INSTANCE/bin/aiaenv.sh`
Microsoft Windows (32-bit)	`$AIA_INSTANCE\bin\aiaenv.bat`

6. Navigate to **cd $AIA_HOME/Infrastructure/Install/AID**

7. Run the following commands for your platforms to configure redirect servlet.

Platform	Command
Linux x86 Solaris SPARC (64-bit) HP-UX 11i (64 bit) IBM AIX Based Systems (64-bit)	ant -f AIAInstallDriver.xml -DDeploymentPlan=<location of DeploymentPlan.xml> -DPropertiesFile=$AIA_INSTANCE/config/AIAInstallProperties.xml
Microsoft Windows (32-bit)	ant -f AIAInstallDriver.xml -DDeploymentPlan=<location of DeploymentPlan.xml> -DPropertiesFile=$AIA_INSTANCE\config\AIAInstallProperties.xml

Configuring the Tomcat Redirect Servlet

To configure the Tom redirect servlet on Business Publisher: 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.

1. 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.

2. 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

3. 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. Modify the following parameter values, noted in red italics, with the information from your AIA implementation:

```
<filter>
        <filter-name>AIARedirectFilter</filter-name>
        <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.

   a. Log in to the Business Publisher.

   b. Navigate to an L3 model.

   c. Click an object and view the attributes of the object in the Details Object pane.

   d. Click the URL in the Link 1 field. An OER login screen pops up.

   e. Log in (get the username and password information from your AIA implementer).

   f. 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.

Appendix – Licenses

Other product licenses included with Foundation Pack:

- Oracle Business Process Publisher 11g.

  Restrictions: None. Enables viewing of reference process models.

- Oracle Service Registry.

  Restrictions: A Restricted Use License is included.

  The customer can use OSR for viewing and consuming Oracle AIA Content (Oracle Intellectual Property) available with their 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))

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

  a. Adding custom attributes to the AIA schemas

  c. Adding corresponding transforms for the custom attributes

  d. Modifying out-of-the-box AIA services taxonomy/categorization

  e. Modifying out-of-the-box AIA endpoint binding templates

  f. 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 trigger the FUL of OSR with AIA

  a. Adding custom business services.

  b. Adding new operation to an existing service.

  c. Registering your own in-house services.

  d. Adding new taxonomies or models to categorize customer specific content (from 1, 2, 3 above).

  e. Modifying attributes and other metadata in OSR other than through the AIA extension mechanism.

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