

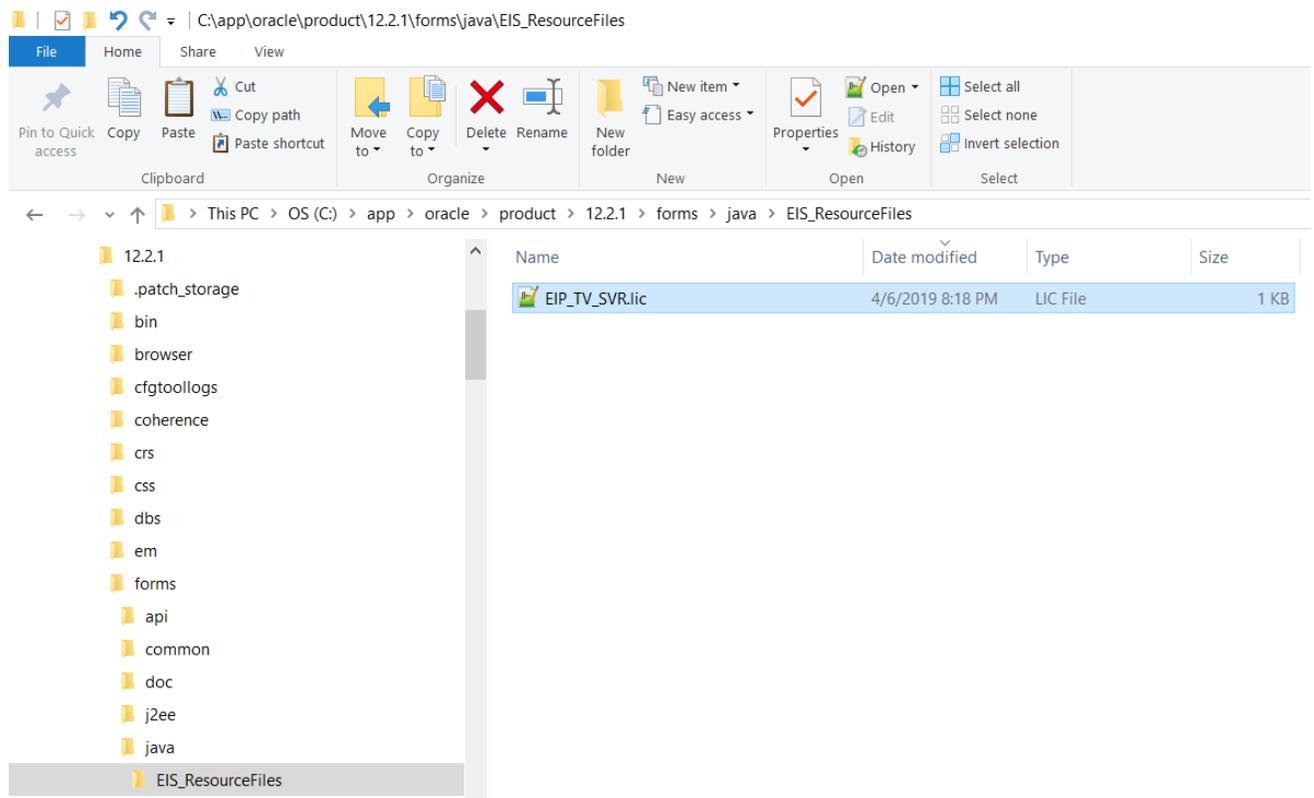
Ezy Image Print

Java Bean Version (v5.2.1) for Oracle Forms technology

Deployment Guide

- Unzip **EIP_Bean_V521.zip** into a temporary folder and copy ALL the JAR files into the **\$ORACLE_HOME/forms/java** folder location on your Oracle Application Server (10gAS or WebLogic Application Server).
- Copy the **'EIS_ResourceFiles'** folder into a folder location on your Application Server's folder, which can be identified by a URL that maps a Virtual Path, that either exists or needs to be created, to this physical folder location where you are copying this folder into.

If you wish to store **'EIS_ResourceFiles'** folder into your **\$ORACLE_HOME/forms/java** folder (**as recommended by LongBridge**) on your Oracle Forms/Reports Application Server's folder, you should have a directory structure similar to the diagram below for Windows environment:



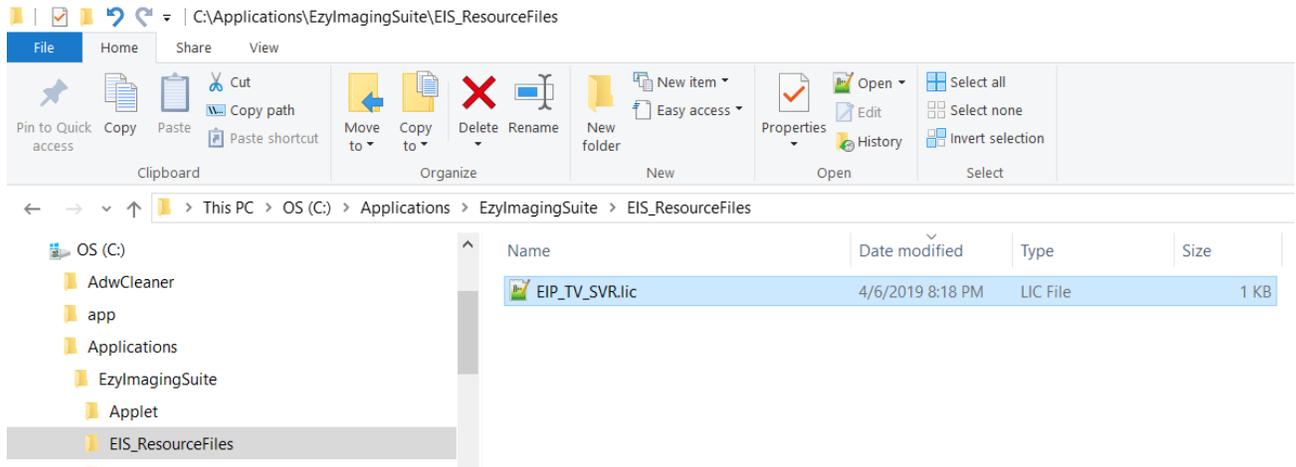
For the above scenario, you do NOT need to deploy **'EISVirtualDirMapping.war'** file.

In this case, you will reference files within **'EIS_ResourceFiles'** folder using the Oracle Forms Java JAR files Virtual Path through the environment variable below within your **'.env'** file. Example:

```
LB_EIS_RESOURCES_URL=http://Asus-Bob:9001/forms/java/EIS_ResourceFiles
```

NOTE: If you upgrade Oracle Forms/Reports software on your Application Server, ensure that you copy 'EIS_ResourceFiles' folder into your new installation again after the upgrade process.

If you wish to store 'EIS_ResourceFiles' folder into a specific user defined folder, example, 'C:\Applications\EzyImagingSuite\EIS_ResourceFiles' on ANY of your Application Server's folder, you should have a directory structure similar to the diagram below for Windows environment:



Refer to the section 'Deployment of 'EISVirtualDirMapping.war' on Page 5 below on how to define '/EIS' Virtual Path for the relevant Application Server that you have deployed the WAR file within.

Depending on which EIS software products that need to be deployed, you will find the relevant Application Server License files within this 'EIS_ResourceFiles' folder. For example, for Ezy Image Print you should have:

- o **EIP_TV_SVR.lic**

'EIP_TV_SVR.lic' is required by Ezy Image Print Software License Validation process during the Oracle Forms application startup routine to ensure that the server that is running our software has been verified correctly to allow proper functioning of all calls to the Java-side component. Without this critical file, an Error Alert will be displayed that will disallow your application from going any further and will be terminated.

For evaluation purposes this file needs to exist within this folder and will accept any server to allow you to test out all the available functions that exist within Ezy Image Print.

Your Application Server to use '/EIS/EIS_ResourceFiles' URL could be any of Apache Tomcat Server or Oracle WebLogic Server.

- Include JAR filenames into the "archive" parameter in the sample formsweb.cfg file under EIP_Bean Config section, or you whichever Config section that you are creating for your Forms application.

Example:

```
archive=frmall.jar, LB_EIP_Bean.jar, jai_core.jar, jai_imageio.jar,
jai_codec.jar, thumbnailator-0.4.3.jar, imgscalr-lib-4.2.jar, joda-time-2.7.jar,
ojdbc6.jar, activation.jar, comms.jar, commons-net-3.6.jar
```

PLEASE ensure that 'archive' parameter MUST all be in ONE Line & NOT as listed above, which is ONLY provided for documentation purposes.

NOTE: There MUST ONLY be 1 reference to the latest version of Ezy Image Print JAR File (LB_EIP_Bean.jar) for the 'archive' parameter for your Config section. Should you wish to utilize previous versions of a JAR file within older Forms applications, create different "config" sections in your .env file.

ALL our JAR files have been securely signed with LongBridge's Trusted Certificate from Sectigo (formerly Comodo).

- Enter the **Forms Environment Variables** into the .env file that you will be using within your Application.

Example, if you are using **default.env**, then the following entries MUST be added to the end of this file:

```
#-----
# EIS Environment Variables for Ezy Image Print
#-----

LB_EIS_LICENSEE=LongBridge Consulting
LB_EIS_LICENSE_KEY=3J5dX7O4EPcSw9t7COfIpojlp1QQ9jLsMU24pPUjCXo=

# This variable can be set to 'Y' or 'N' to determine if sensitive information such
# as Login details, Filepaths, SQL statements, etc,
# should be printed in the Java Console Message File.
# Default value if you do not call the relevant API within Oracle Forms is 'Y'. Set
# the environment variable to 'N' if you wish to hide such messages.
LB_EIS_PRINT_SVR_INFO_MSGS=Y

# Trial/Evaluation Version - 30 Days
LB_EIP_PRODUCT_KEY=d8j05pGLutY4/qUfatOLqCp2hvlrAvAlUVFnt0Xvv/U=

# EIS Resources Files folder normally contains the EIS Product Server License file
# (.lic).

# If you wish to use $ORACLE_HOME/forms/java that contains 'EIS_ResourceFiles'
# sub-folder, UNCOMMENT this line. This is easier and simpler to implement.
LB_EIS_RESOURCES_URL=http://Asus-Bob:9001/forms/java/EIS_ResourceFiles

# If you wish to use your own user defined folder containing 'EIS_ResourceFiles'
# folder, UNCOMMENT this line
#LB_EIS_RESOURCES_URL=http://Asus-Bob:8086/EIS/EIS_ResourceFiles
```

PLEASE ensure that each Environment variable is on ONE Line.

See sample file, **LB_EIS.env** that has been provided in the Zip archive.

The Application Server License File, '**EIP_TV_SVR.lic**', for evaluation purposes will contain the following line:

```
+kF9DMsKkns91SR1XRRc8aaUkHIgcWbPxZe9wKX8b71CUNXGUr+M1OpcPfaIy/Mz
```

Once you have evaluated and find our products satisfying your business needs and requirements, you will be provided with the relevant Environment Variable values upon purchasing our software solution for your Production & Development/Test Server(s). Use the provided values instead of the above, which is ONLY required for the Evaluation Version.

In your [basejpi.htm](#) file, please include the 2 lines at the appropriate place. See the sample file that has been provided. You can increase the amount of RAM to be used by changing `-Xmx` value to 2g, 3g, 4g, etc, provided you have enough physical memory. However the setting provided below should be sufficient.

```
<PARAM NAME="java_arguments" VALUE="-Xms512m -Xmx1024m">
```

```
java_arguments="-Xms512m -Xmx1024m"
```

- The sample Ezy Image Print application uses a number of database objects, which need to be created under a database schema that needs to own these objects. This user needs to be created with CONNECT and RESOURCE database roles.

For the purpose of this Evaluation Version demo, create a schema called **'EISDEMO'** with a password of **'EISDEMO'** too.

NOTE:

For 11g and above databases, should you create the username with a case insensitive password, ie, **'eisdemo'**, please alter within your D/B thru ALTER SYSTEM statement or Parameter setting in `init<db>.ora` file should your organization be using case insensitive passwords:

```
alter system set sec_case_sensitive_logon=false scope=spfile;
```

- Login as EISDEMO into SQL*Plus or TOAD or any other tool, and run the SQL file called **'cr_db_objs.sql'**. This will create a database tables, namely:
 - **LB_EIS_LNF_DOCS**
 - **LB_EIS_URL_DOCS**
 - **LB_EIS_FTP_DOCS**
 - **LB_BLOB_DOCS**
 - **LB_EIS_DB_DOCS**

It also creates the necessary D/B Sequences and Indexes as required.

You may populate these tables as desired with the correct data and modify the sample .fmb file provided to print the required documents from the above tables or just specify the required values needed for the different repositories as per the sample .fmb file when calling the relevant API.

Deployment of 'EISVirtualDirMapping.war'

To allow **Ezy Image Print** to access the Application Server License Resource File, ie, 'EIP_TV_SVR.lic', you need to deploy 'EISVirtualDirMapping.war' file to Oracle WebLogic Server (if using it), or create a Virtual Path "/EIS" in Apache Tomcat Server (if using this server).

This virtual path maps to the physical filepath that will contain the user-defined 'EIS_ResourceFiles' sub-folder in the relevant Application Server, should you wish to deploy this folder outside of your \$ORACLE_HOME/forms/java folder on your Oracle Forms Application Server.

Our recommendation is to use \$ORACLE_HOME/forms/java option as it is simpler to implement without the need to deploy the WAR file.

Following are the instructions on how to do this within the various deployment platforms under **Windows environment**, as an example. This operation ONLY needs to be done ONCE irrespective of the different EIS software products that you may be using.

Similar settings need to be done under **Linux/UNIX environment**.

Apache Tomcat Server

For this server environment, you do NOT need to deploy 'EISVirtualDirMapping.war' as the Virtual Path "/EIS" can be easily defined within the server's configuration file.

In the 'conf' folder where Tomcat has been deployed, example, 'C:\Program Files (x86)\Apache Software Foundation\Tomcat 9.0\conf', create the Context entry (highlighted in yellow) in the file called 'server.xml' inside the 'Host' tag, as follows:

```
<Host name="localhost" appBase="webapps"
      unpackWARs="true" autoDeploy="true">

  <Context path="/EIS" docBase="C:\Applications\EzyImagingSuite/"

  <!-- SingleSignOn valve, share authentication between web applications
       Documentation at: /docs/config/valve.html -->
  <!--
  <Valve className="org.apache.catalina.authenticator.SingleSignOn" />
  -->

  <!-- Access log processes all example.
       Documentation at: /docs/config/valve.html
       Note: The pattern used is equivalent to using pattern="common" -->
  <Valve className="org.apache.catalina.valves.AccessLogValve" directory="logs"
        prefix="localhost_access_log" suffix=".txt"
        pattern="%h %l %u %t &quot;%r&quot; %s %b" />

</Host>
```

You will need to STOP and RESTART Apache Tomcat Server for this '/EIS' Virtual Path to be effective.

On your Tomcat deployment platform, create the physical folder as per your physical filepath specified above.

Example on Windows platform you should have a similar structure as per the diagram on Page 2.

In the above example, I have created 'C:\Applications\EzyImagingSuite' folder that is mapped to the Virtual Path '/EIS', and within this root folder, I have copied the 'EIS_ResourceFiles' sub-folder from the archive Zip file into here. It should contain the Application Server License File for evaluation purposes.

Oracle WebLogic Server

Creation of the virtual path, '/EIS' is not straightforward within WebLogic Server. To provide a way of referencing files within the sample application, one way of doing this is to create a Web Application and deploying its WAR file through WebLogic Admin Console, and defining the Virtual Directory Mapping within 'weblogic.xml' file, which is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<weblogic-web-app xmlns="http://www.bea.com/ns/weblogic/weblogic-web-app">
  <context-root>/EIS</context-root>
  <virtual-directory-mapping>
    <local-path>C:/Applications/EzyImagingSuite/</local-path>
    <url-pattern>/*</url-pattern>
  </virtual-directory-mapping>
</weblogic-web-app>
```

We have provided the sample WAR file, "EISVirtualDirMapping.war" within our Zip file, which only contains **web.xml** and **weblogic.xml**.

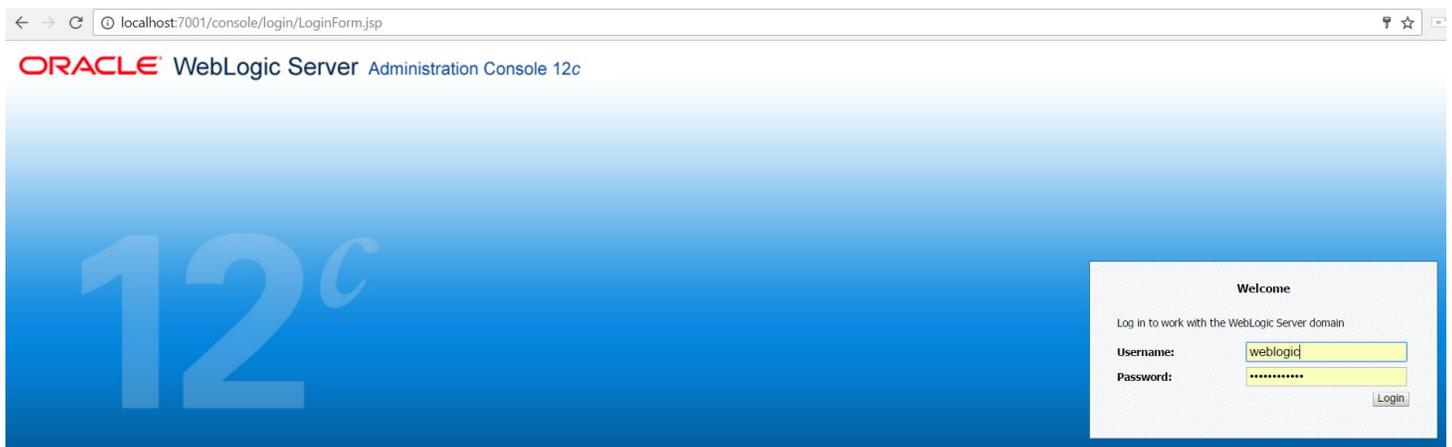
You can create a similar named Web Application Project using NetBeans or Eclipse or any other IDE, and copy both these files into the project's **WEB-INF** folder, and modify the '<local-path>' value to point to the physical folder that represents the parent folder within your WebLogic Server environment where you wish to copy the 'EIS_ResourceFiles' sub-folder from the archive Zip file.

This project does not need any index.html or any other web page file. Once you have done this, you can build the project to generate its WAR file, as per the same name above.

To deploy this WAR file, access the WebLogic Server Administration Console. Open a web browser and enter the URL of the domain's administration console:

http://hostname:port/console

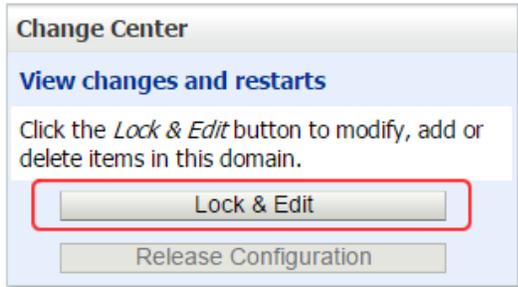
In this tutorial, the example shown is for my own environment: **http://asus-bob:7001/console**



Change the hostname and port according to your own environment. Log in as 'weblogic' and its password and press 'Login' button.

Deploying an application is a change to the domain's configuration, so it must first be locked. In the Change Center, click the **Lock & Edit** button, highlighted in a red border.

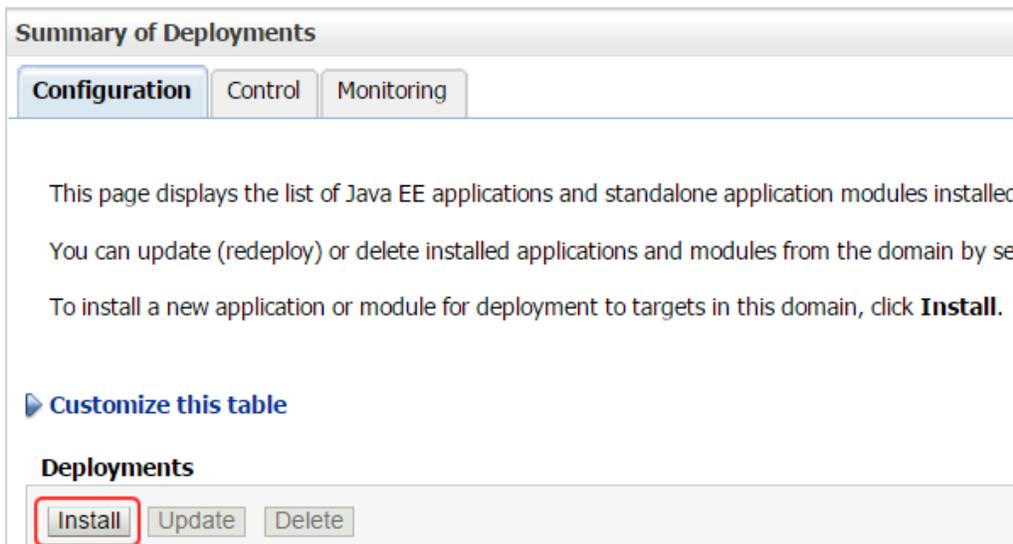
ORACLE WebLogic Server Adm



Under Domain Structure, click **Deployments**.



On the right, under Deployments, click the **Install** button.



Find the **Current Location** field. Use the links to browse to the location in which you placed the **“EISVirtualDirMapping.war”** file. There you will see this filename with a radio button next to it. Select that radio button. By using the links and the radio button, the console fills in the **Path** field for you.

Alternatively, you can type in the path and file name in the **Path** field yourself.

Then click **Next**.

Install Application Assistant

Back Next Finish Cancel

Locate deployment to install and prepare for deployment

Select the file path that represents the application root directory, archive file, exploded archive directory, or application module descriptor that you want to install. You can

Note: Only valid file paths are displayed below. If you cannot find your deployment files, [Upload your file\(s\)](#) and/or confirm that your application contains the required

Path:	C:\Users\bob\Documents\NetBeansProjects\EISVirtualDirMapping\dist\EISVirtualDirMapping.war
Recently Used Paths:	C:\Users\bob\Documents\NetBeansProjects\EISVirtualDirMapping\dist D:\LB_EzySolutions\EzyImageCapture\ProductDistribution\OracleApex
Current Location:	localhost \ C: \ Users \ bob \ Documents \ NetBeansProjects \ EISVirtualDirMapping \ dist

EISVirtualDirMapping.war

Back Next Finish Cancel

On the next screen, ensure that **Install this deployment as an application** is selected.

Then click **Next**.

Install Application Assistant

Back Next Finish Cancel

Choose installation type and scope

Select if the deployment should be installed as an application or library. Also decide the scope of this deployment.

The application and its components will be targeted to the same locations. This is the most common usage.

Install this deployment as an application

Application libraries are deployments that are available for other deployments to share. Libraries should be available on all of the targets running their referencing applications.

Install this deployment as a library

Select a scope in which you want to install the deployment.

Scope: Global ▼

Back Next Finish Cancel

On the next screen, select the servers and/or clusters to which you want to deploy this application.

Then click **Next**.

On my own WebLogic Server, I am deploying this to the Admin Server as well as 'cluster_forms' cluster. You should select the required deployment targets according to your own environment.

Install Application Assistant

Back Next Finish Cancel

Select deployment targets

Select the servers and/or clusters to which you want to deploy this application. (You can reconfigure deployment targets later).

Available targets for EISVirtualDirMapping :

Servers

- AdminServer

Clusters

- cluster_forms
 - All servers in the cluster
 - Part of the cluster
 - WLS_FORMS
- cluster_reports
 - All servers in the cluster
 - Part of the cluster
 - WLS_REPORTS

Back Next Finish Cancel

On the next screen, keep all the default values and click **Next**.

— General —

What do you want to name this deployment?

* Name:

— Security —

What security model do you want to use with this application?

DD Only: Use only roles and policies that are defined in the deployment descriptors.

Custom Roles: Use roles that are defined in the Administration Console; use policies that are defined in the deployment descriptor.

Custom Roles and Policies: Use only roles and policies that are defined in the Administration Console.

Advanced: Use a custom model that you have configured on the realm's configuration page.

— Source Accessibility —

How should the source files be made accessible?

Use the defaults defined by the deployment's targets

Recommended selection.

Copy this application onto every target for me

During deployment, the files will be copied automatically to the Managed Servers to which the application is targeted.

I will make the deployment accessible from the following location

Location:

Provide the location from where all targets will access this application's files. This is often a shared directory. You must ensure the application files exist in this location and that each target can reach the location.

— Plan Source Accessibility —

How should the plan source files be made accessible?

Use the same accessibility as the application

Recommended selection.

Copy this plan onto every target for me

During deployment, the plan files will be copied automatically to the Managed Servers to which the application is targeted.

Do not copy this plan to targets

You must ensure the plan files exist in the shared location and that each target can reach the location.

On the next screen, select **No, I will review the configuration later**. Then click **Finish**.

Install Application Assistant

Back Next Finish Cancel

Review your choices and click Finish

Click Finish to complete the deployment. This may take a few moments to complete.

Additional Configuration

In order to work successfully, this application may require additional configuration. Do you want to review this application's configuration after completing this assistant?

Yes, take me to the deployment's configuration screen.

No, I will review the configuration later.

Summary

Deployment: C:\Users\bob\Documents\NetBeansProjects\EISVirtualDirMapping\dist\EISVirtualDirMapping.war

Name: EISVirtualDirMapping

Staging Mode: Use the defaults defined by the chosen targets

Plan Staging Mode: Use the same accessibility as the application

Security Model: DDOnly: Use only roles and policies that are defined in the deployment descriptors.

Scope: Global

Target Summary

Components 	Targets
EISVirtualDirMapping	AdminServer, cluster_forms

Back Next Finish Cancel

Notice the messages that the deployment was installed, but changes must be activated. Also notice the **EISVirtualDirMapping** application listed in the Deployments table.

Home > Summary of Deployments

Messages

- ✔ The deployment has been successfully installed.
- ✔ You must also activate the pending changes to commit this, and other updates, to the active system.

Summary of Deployments

Configuration | Control | Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain.

You can update (redeploy) or delete installed applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page.

To install a new application or module for deployment to targets in this domain, click **Install**.

Customize this table

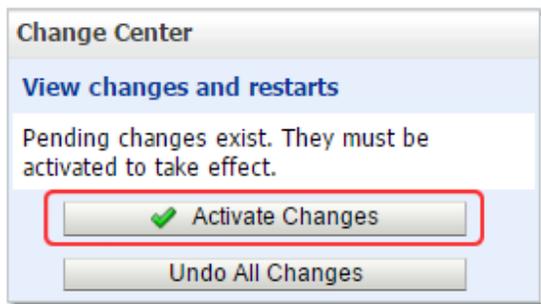
Deployments

Install | Update | Delete Showing 1 to 10 of 61 Previous | Next

Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Order
adf.oracle.businesseditor(1.0,12.2.1.1.0)	Active		Library	AdminServer, cluster_forms, cluster_reports	Global		100
adf.oracle.domain(1.0,12.2.1.1.0)	Active		Library	AdminServer, cluster_forms, cluster_reports	Global		100
adf.oracle.domain.webapp(1.0,12.2.1.1.0)	Active		Library	AdminServer, cluster_forms, cluster_reports	Global		100
coherence-transaction-rar	Active	✔ OK	Resource Adapter	AdminServer, cluster_forms, cluster_reports	Global		100
DMS Application (12.2.1.1.0)	Active	✔ OK	Web Application	AdminServer, cluster_forms, cluster_reports	Global		5
EISVirtualDirMapping	distribute Initializing		Web Application	AdminServer, cluster_forms	Global		100
em	Active	✔ OK	Enterprise Application	AdminServer	Global		400
emagentsdkimplpriv_jar(12.4,12.1.0.4.0)	Active		Library	AdminServer	Global		100
emagentsdkimpl_jar(12.4,12.1.0.4.0)	Active		Library	AdminServer	Global		100
emagentsdk_jar(12.4,12.1.0.4.0)	Active		Library	AdminServer	Global		100

Install | Update | Delete Showing 1 to 10 of 61 Previous | Next

In the Change Center, click the **Activate Changes** button.



Notice the message that the changes have been activated. Also notice the **EISVirtualDirMapping** application listed in the Deployments table is now in the "Prepared" state.

<input type="checkbox"/>		EISVirtualDirMapping	Prepared	✔ OK	Web Application
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Click on the 'Control' tab, select the check box to the left of the **EISVirtualDirMapping** application in the Deployments table. Then use the **Start** drop-down list to select '**Servicing all requests**'.

Summary of Deployments

Configuration **Control** Monitoring

This page displays the list of Java EE applications and standalone application modules installed to this domain.

You can start and stop applications and modules from the domain by selecting the checkbox next to the application name and then using the controls on this page.

▶ [Customize this table](#)

Deployments

		State	Health	Type
<input type="button" value="Start"/> <input type="button" value="Stop"/>				
<input type="checkbox"/> Servicing all requests		Active	✔ OK	Resource Adapter
<input type="checkbox"/> Servicing only administration requests				
<input type="checkbox"/>	⊕ DMS Application (12.2.1.1.0)	Active	✔ OK	Web Application
<input checked="" type="checkbox"/>	⊕ EISVirtualDirMapping	Prepared	✔ OK	Web Application

In the 'Start Application Assistant' screen, click '**Yes**' button to continue.



A message is displayed indicating a start request was sent. Momentarily you will see the State of the **EISVirtualDirMapping** application become "Active." This means that the application is available to those that have access to the server.

<input type="checkbox"/>	⊕ EISVirtualDirMapping	Active	✔ OK	Web Application
--------------------------	------------------------	--------	------	-----------------

To test if you can access 'EIP_TV_SVR.lic' file from the Resource Files folder from this Virtual Path, enter the following URL in another web browser session (change hostname and port according to your environment):

http://Asus-Bob:9001/EIS/EIS_ResourceFiles/EIP_TV_SVR.lic

You should see the following display in your web browser:



Should you wish to change the physical folder specified in 'weblogic.xml' file, kindly modify it to use your own preferred folder location on your Application Server, and copy this XML file back into the WAR file, 'EISVirtualDirMapping.war'.

Pre-requisites to run the sample Ezy Image Print Forms application:

- Ensure that you always use the latest **JRE Plug-In** to run our Ezy Imaging Suite sample applications. You can download the latest JRE from:

<http://java.com/en/download/>

- ALL our JAR files are securely signed with LongBridge's Trusted Certificate from Sectigo (formerly Comodo).
- Since Google Chrome no longer supports Java Applets, it is **BEST** to use the latest **Internet Explorer or Mozilla Firefox browser** with our sample application, unless you are running as a Java Web Start Standalone application with Oracle Forms 12c.

Run sample application:

Enter a similar URL as follows in your browser (change Hostname & Port according to your environment):

http:\\asus-bob:9001\\forms\\frmservlet?config=EIP_Bean

See sample **formsweb.cfg** file provided in Zip archive for the Config Section, **EIP_Bean**, mentioned above.

We have provided FMBs, which are as follows:

- **LB_EIP_V521.fmb**

The sample application provided allows you to evaluate how Ezy PDF Print can be very easily integrated into your own Oracle Forms applications to directly print imaging documents to your desired printer from Local Client Machine Folder(s), Shared Network Folder(s), Web/Application Server Folder(s) (ie, URL locations), Database Server and/or FTP Server.

Sensitive imaging documents that need to be sent directly to a desired printer can be easily sent to such a printer without the need to display the document within your application and potentially saved to the local folder, when tight security procedures are required to safeguard the integrity of such confidential documents.

Technical Assistance & Support

Kindly contact Bob Gill on bob.gill@longbridge.biz for any technical assistance and support in case of any issues during deployment or evaluation of Ezy Image Print for your Oracle environment.

We are also happy to enhance and customize Ezy Image Print to fit in with your specific needs and requirements. Please do not hesitate to contact Bob Gill for a further discussion of your project.