

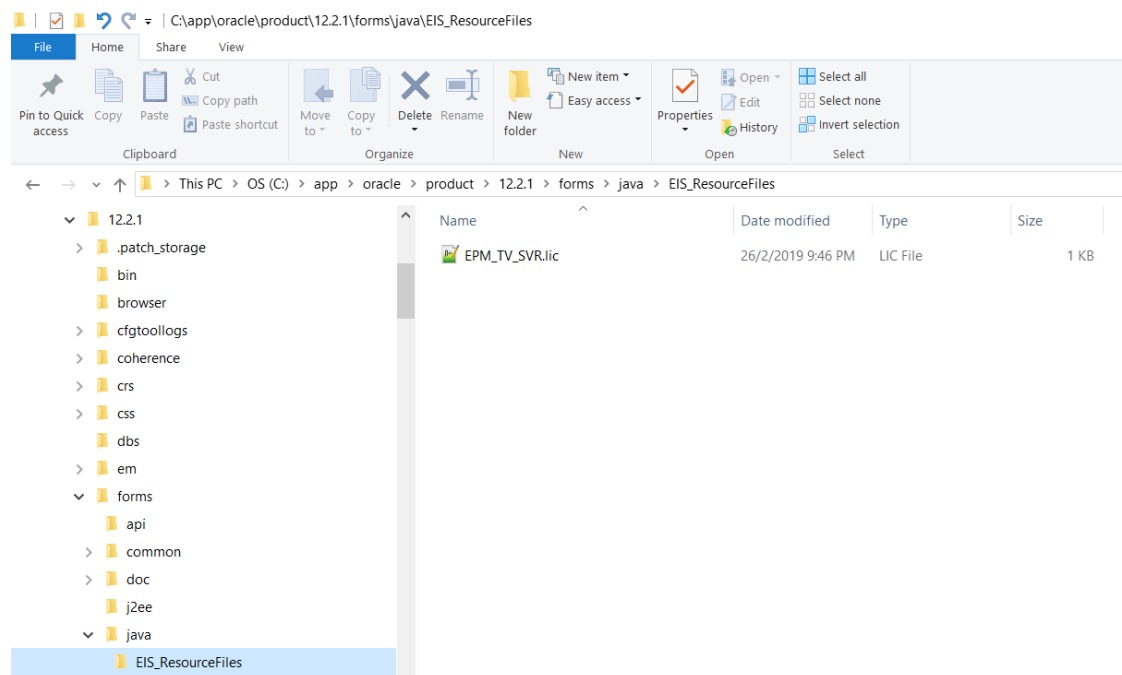
Ezy PDF Manager

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

Deployment Guide

- Unzip **EPM_Bean_LNF_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:



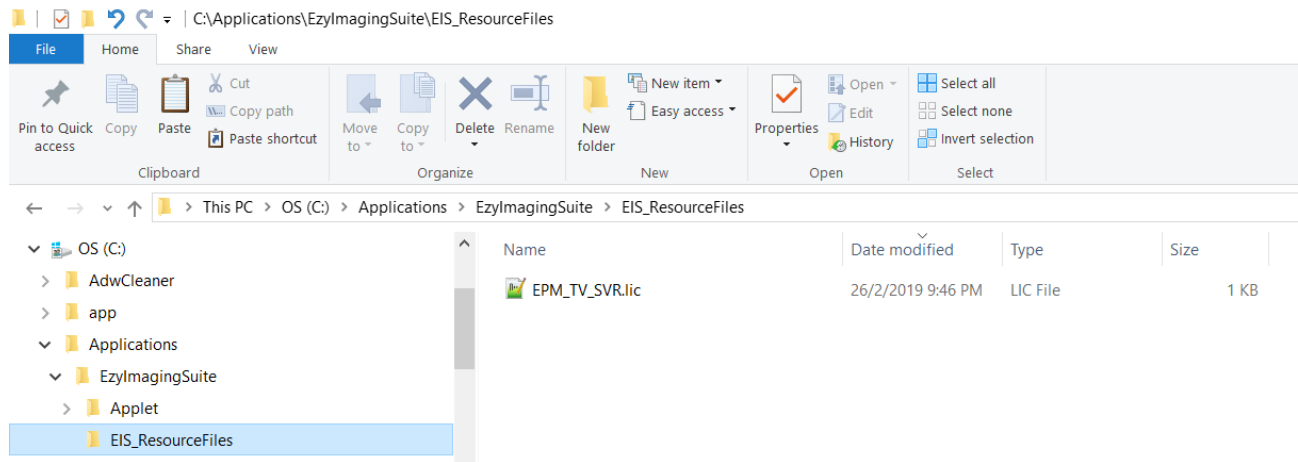
For the above scenario, you do NOT need to deploy **'EISVirtualDirMapping.war'** file.

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 PDF Manager you should have:

- **EPM_TV_SVR.lic**

'EPM_TV_SVR.lic' is required by Ezy PDF Manager 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 PDF Manager.

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 **EPM_Bean** Config section, or you whichever Config section that you are creating for your Forms application.

Example:

```
archive=frmall.jar, LB_EPM_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, jPDFNotes.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 PDF Manager JAR File (LB_EPM_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 PDF Manager
#-----

LB_EIS_LICENSEE=LongBridge Consulting
LB_EIS_LICENSE_KEY=3J5dX7O4EPcSw9t7COFIpojlplQQ9jLsMU24pPUjCXo=

# 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 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

# Ezy PDF Manager Product Key with Annotations/Modifications & Non-PDF File Viewer
# Licensed (Trial/Evaluation Version - 30 Days)
LB_EPM_PRODUCT_KEY=d8j05pGLutY4/qUfatOLqAnD3Tax8RKXuIJgoDC5eNKSGAOfoKnAyyyp0ygnZs6Qk

# ALL EIS Resources Files normally contains the EIS Product Server License file
# (.lic), Executable and DLL files of 3rd Party program files for Auto-Crop and PDF
# File Compression.

# 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, '**EPM_TV_SVR.lic**', for evaluation purposes will contain the following line:

```
+kF9DMsKkns91SR1XRRc8ZdW48goxABM95/1U1j5ZHNCUNXGUr+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 PDF Manager 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_inf_tbl.sql'**. This will create a database table, namely:
 - **LB_EIS_LNF_DOCS**

Deployment of 'EISVirtualDirMapping.war'

To allow **Ezy PDF Manager** to access the Application Server License Resource File, ie, '**EPM_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**.

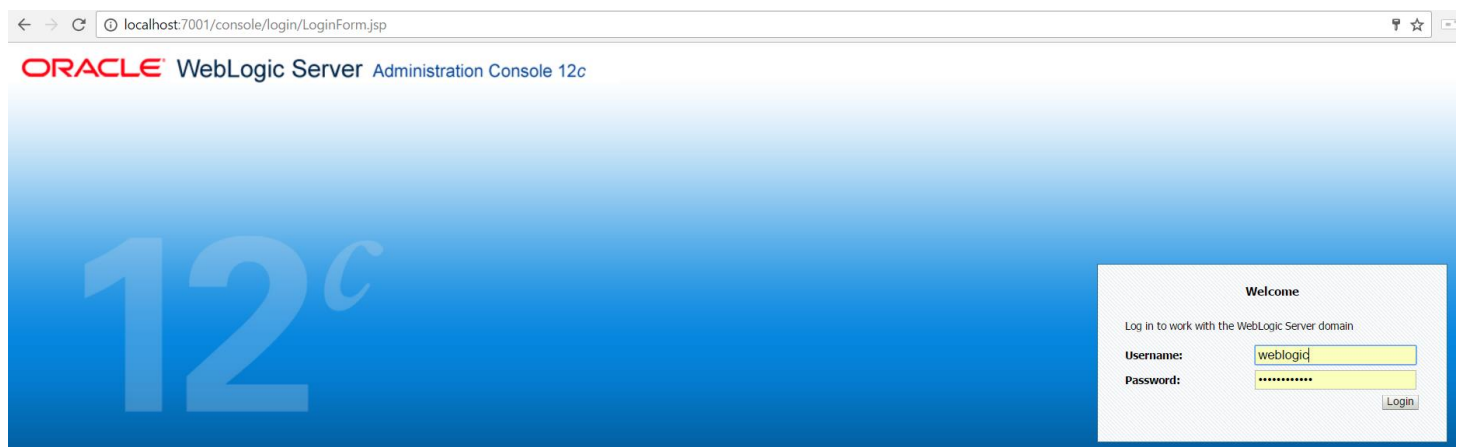
You can create a similar named Web Application Project using NetBeans or Eclipse or any other IDE, and copy both these files into the project's **WEB-INF** folder, and modify the '**<local-path>**' value to point to the physical folder that represents the parent folder within your WebLogic Server environment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

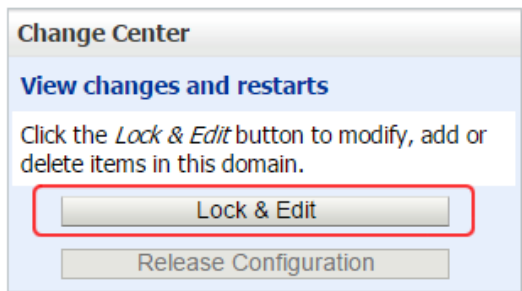
In this tutorial, the example shown is for my own environment: **http://asus-bob:7001/console**



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.

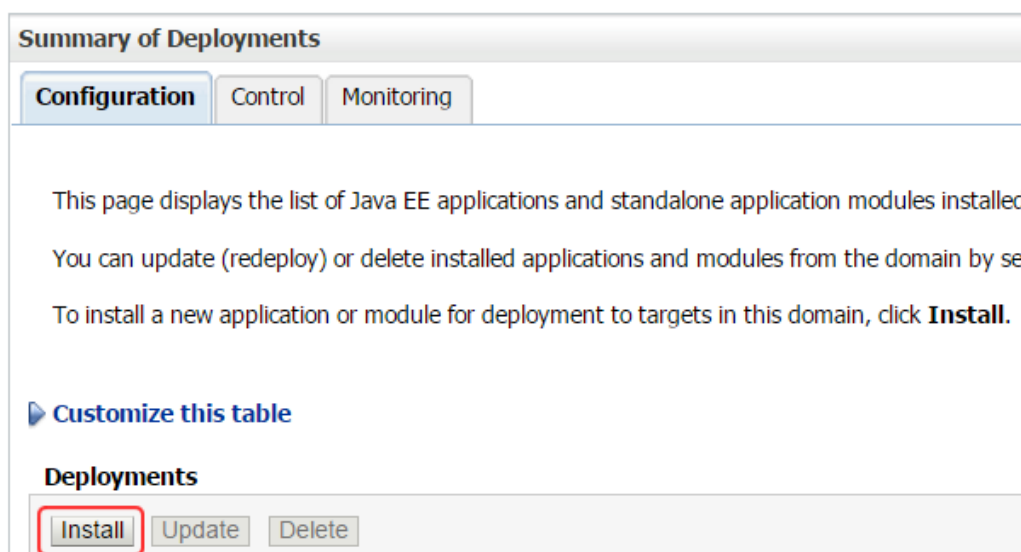
ORACLE WebLogic Server Administration Console



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
localhost \ C: \ Users \ bob \ Documents \ NetBeansProjects \ EISVirtualDirMapping \ dist

Current Location:

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.

The screenshot shows the 'Install Application Assistant' window. At the top, there are navigation buttons: 'Back', 'Next', 'Finish', and 'Cancel'. Below these is the section 'Select deployment targets' with the instruction: 'Select the servers and/or clusters to which you want to deploy this application. (You can reconfigure deployment targets later).' The main area is titled 'Available targets for EISVirtualDirMapping :'. It contains two sections: 'Servers' and 'Clusters'. In the 'Servers' section, 'AdminServer' is selected with a checked checkbox. In the 'Clusters' section, 'cluster_forms' is selected with a checked checkbox. Under 'cluster_forms', the radio button for 'All servers in the cluster' is selected, and the checkbox for 'WLS_FORMS' is checked. The 'cluster_reports' section is unselected, with its radio buttons and checkbox ('WLS_REPORTS') also unselected. At the bottom, there are another set of navigation buttons: 'Back', 'Next', 'Finish', and 'Cancel'.

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: DDOOnly: 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.

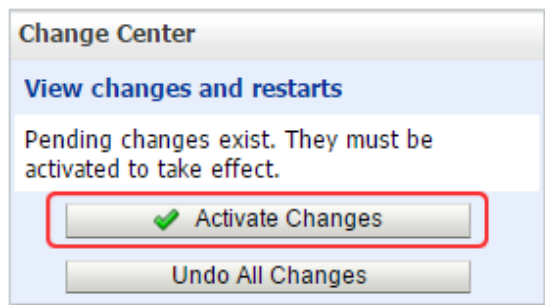
To install a new application or module for deployment to targets in this domain, click **Install**.

Customize this table

Deployments

Install Update Delete			Showing 1 to 10 of 61 Previous Next					
<input type="checkbox"/>	Name	State	Health	Type	Targets	Scope	Domain Partitions	Deployment Order
<input type="checkbox"/>	adf.oracle.businesseditor(1.0,12.2.1.1.0)	Active		Library	AdminServer, cluster_forms, cluster_reports	Global		100
<input type="checkbox"/>	adf.oracle.domain(1.0,12.2.1.1.0)	Active		Library	AdminServer, cluster_forms, cluster_reports	Global		100
<input type="checkbox"/>	adf.oracle.domain.webapp(1.0,12.2.1.1.0)	Active		Library	AdminServer, cluster_forms, cluster_reports	Global		100
<input type="checkbox"/>	coherence-transaction-rar	Active	✓ OK	Resource Adapter	AdminServer, cluster_forms, cluster_reports	Global		100
<input type="checkbox"/>	DMS Application (12.2.1.1.0)	Active	✓ OK	Web Application	AdminServer, cluster_forms, cluster_reports	Global		5
<input type="checkbox"/>	EISVirtualDirMapping	distribute Initializing		Web Application	AdminServer, cluster_forms	Global		100
<input type="checkbox"/>	em	Active	✓ OK	Enterprise Application	AdminServer	Global		400
<input type="checkbox"/>	emagentsdkimplpriv_jar(12.4,12.1.0.4.0)	Active		Library	AdminServer	Global		100
<input type="checkbox"/>	emagentsdkimpl_jar(12.4,12.1.0.4.0)	Active		Library	AdminServer	Global		100
<input type="checkbox"/>	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

Start

Stop

Servicing all requests

Servicing only administration requests

		State	Health	Type
		Active	OK	Resource Adapter
<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.

Start Application Assistant

Yes

No

Start Deployments

You have selected the following deployments to be started. Click 'Yes' to continue, or 'No' to cancel.

- EISVirtualDirMapping

Yes

No

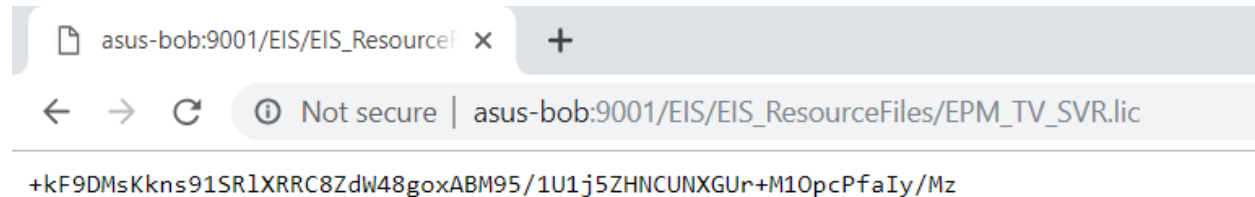
A message is displayed indicating a start request was sent. Momentarily you will see the State of the **EISVirtualDirMapping** application become "Active." This means that the application is available to those that have access to the server.

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

To test if you can access 'EPM_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/EPM_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 PDF Manager 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=EPM_Bean

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

We have provided FMBs, which are as follows:

- **LB_EPM_LNF_V521.fmb**

This FMB is a demo application to showcase how to view stored documents within the Local/Shared Network Folder Repository.

Also available in this Evaluation Version is the ability to open ANY non-PDF file with a file extension of '**.bmp**', '**.gif**', '**.jpg**', '**.jpeg**', '**.png**', '**.tif**' and '**.tiff**' within Ezy PDF Manager without the need to include any other 3rd party library.

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 PDF Manager for your Oracle environment.

Although we have only provided the Local/Shared Network Folder Repository sample application, our solution is also able to store/retrieve imaging documents from Web/Application Server folders (i.e., URL locations), FTP Server folders and/or Database Server tables. If you need any of these sample applications, please contact Bob Gill.

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