Image Services Resource Adapter

Deployment Guide

For SAP NetWeaver WAS 6.40

Release 3.4 Fixpack 3

April 2009

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About This Manual

This manual provides information about configuring the IBM FileNet Image Services Resource Adapter (ISRA) version 3.4.0.x on SAP WAS 6.40 platform. Refer the separate ISRA Installation Guide for Installing ISRA 3.4.0.x.

Conventions Used in the Document

The table lists the formatting conventions used in this document.

Conventions	Description
`Fixed Size font`	Used for commands entered at the system command prompt.
Arial font	Used for important notes
Bold	Occasionally used to refer to portions of user interface, such as the **Next** button or the **Install** button

Related References

For all ImageViewer parameters please refer to the FNImageViewer documentation provided with ISRA installation media.

<ISRA-home>\ISRA340\FNImageViewer\docs

For all P8 System Manager related information, please refer to P8 System Manager documentation, provided with ISRA installation media.

<ISRA-home>\ISRA340\SystemManager\docs

Comments and Suggestions

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1

ISRA Deployment

This chapter describes the deployment of ISRA on SAP WAS 6.40 platform.

Note	The installation procedure for SAP WAS 6.40 is outside the scope of this document. This guide assumes that the required settings and configurations have already been made.

Deployment Requirements

This section lists the minimum software and hardware requirements for successful deployment of ISRA on SAP WAS 6.40 Application Server.

Caution	All the xml related to the deployment of ISRA must be created manually or use a pre-existing file that is valid. Do not copy xml contents straight from the Deployment Guide.

Hardware Requirements

- For additional information on SAP WAS 6.40,visit http://www.sap.com/netweaver
- ISRA installation will require approximately 120 MB free disk space.

Software Requirements

- SAP WAS 6.40 installed on Microsoft Windows 2003 Server
- IBM FileNet IS 3.6 SP2 and above

Mandatory Requirements for ISRA

The mandatory requirements for ISRA 3.4.0 is:

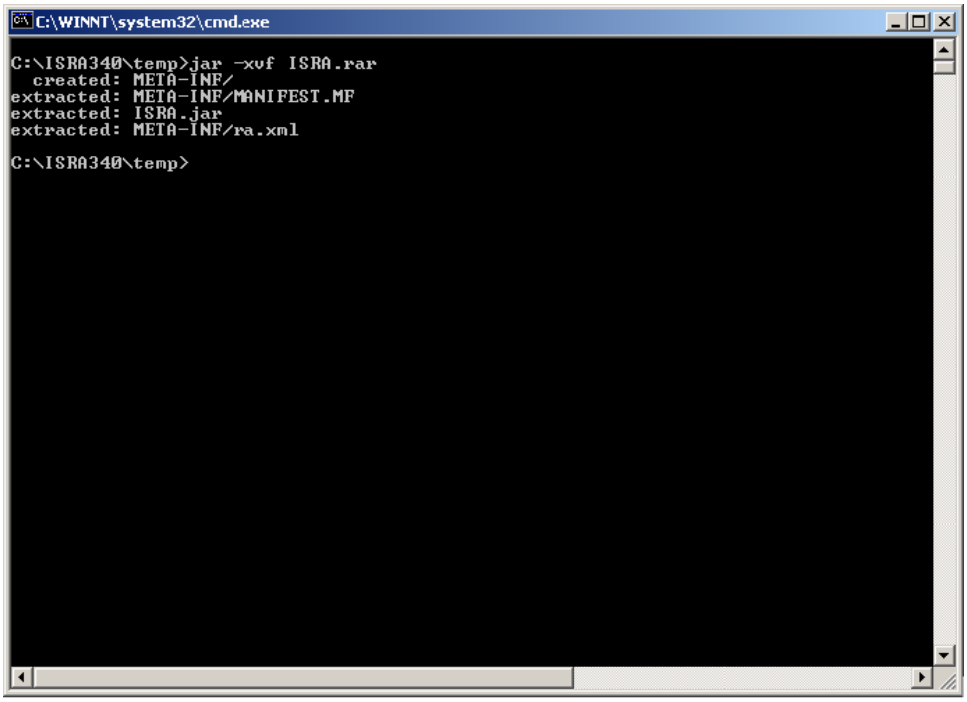
- Include the folder in which **WinPerfMon.dll** is present in the system path in case of Windows operating system. In LINUX, this file is not required.
- Enter the initial and maximum JVM heap size as 512.

Deploying ISRA

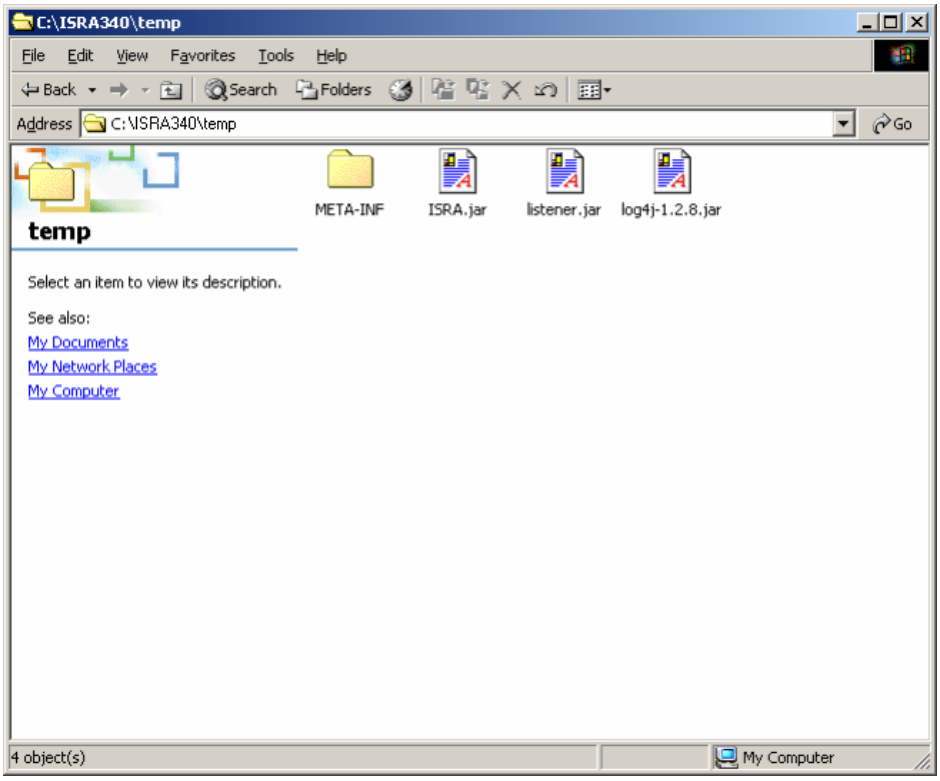
To deploy ISRA on SAP WAS 6.40:

1. Navigate to the directory where ISRA 3.4.0 is installed. Select the **ISRA.rar** file from the Jar folder of ISRA installation directory and copy the file under a temporary folder.

2. Run **jar -xvf ISRA.rar** command from temporary folder location.



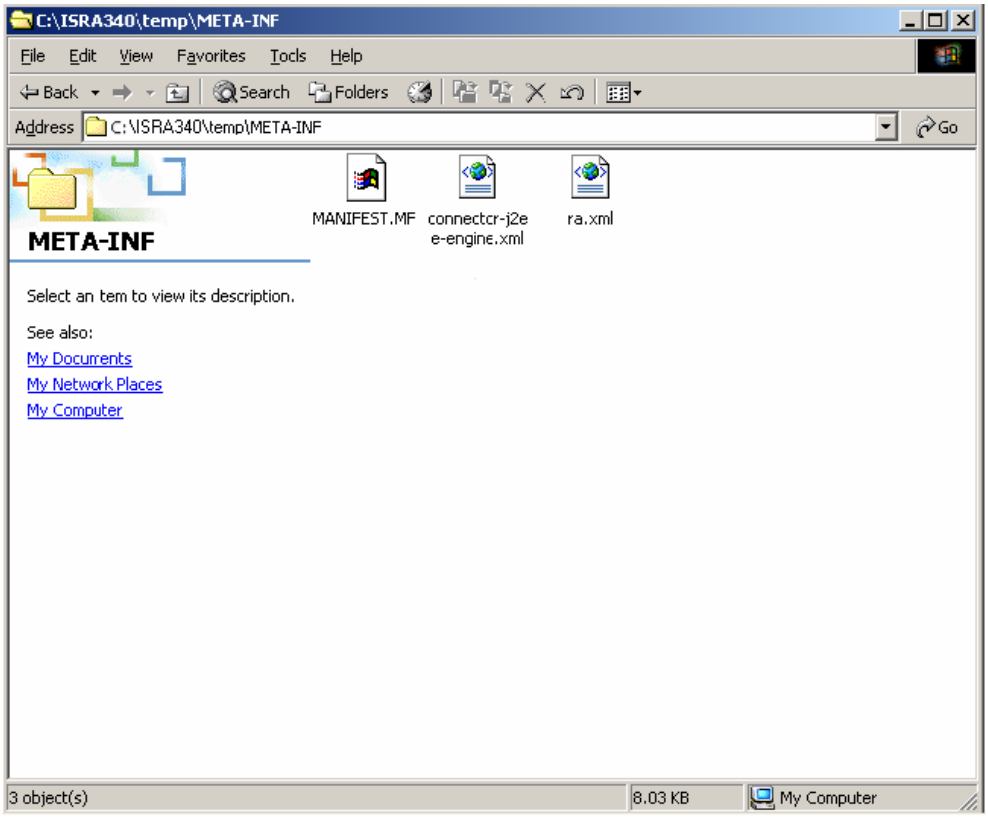
3. Delete **ISRA.rar** file from temporary folder.
4. Add **listener.jar** and **log4j-1.2.8.jar** to the temporary folder. (The System Manager folder contains the **listener.jar** and **log4j-1.2.8.jar**) The following screen appears.

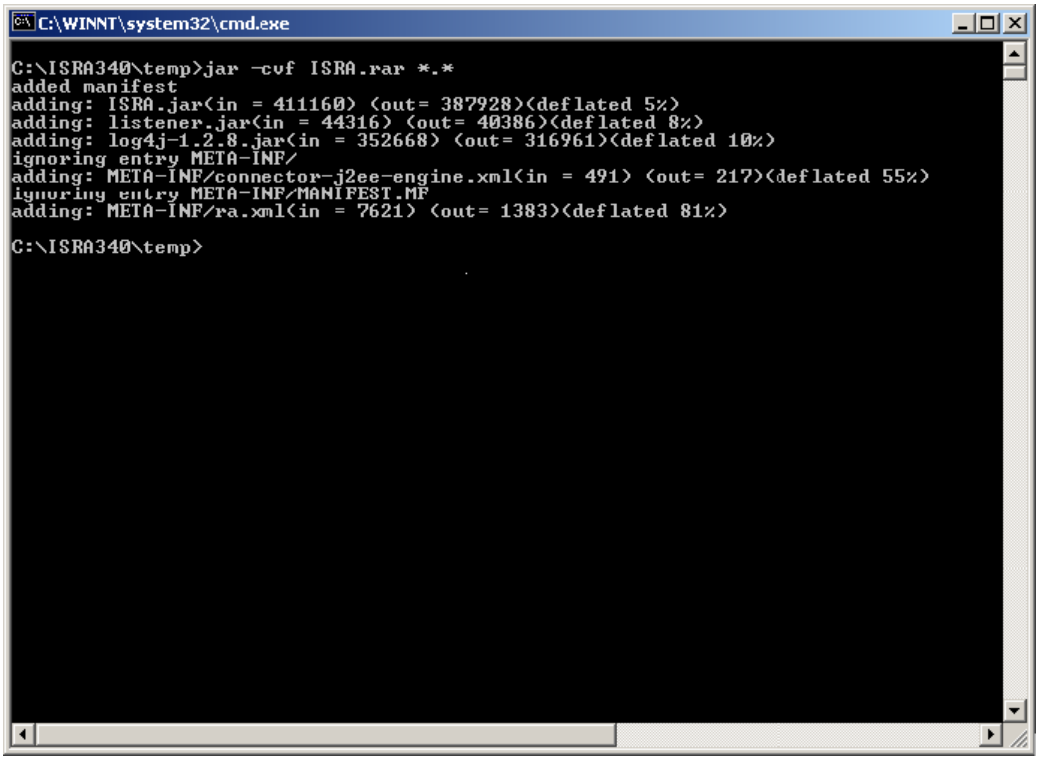


5. Create a file named **connector-j2ee-engine.xml** to specify the JNDI name with the following content:

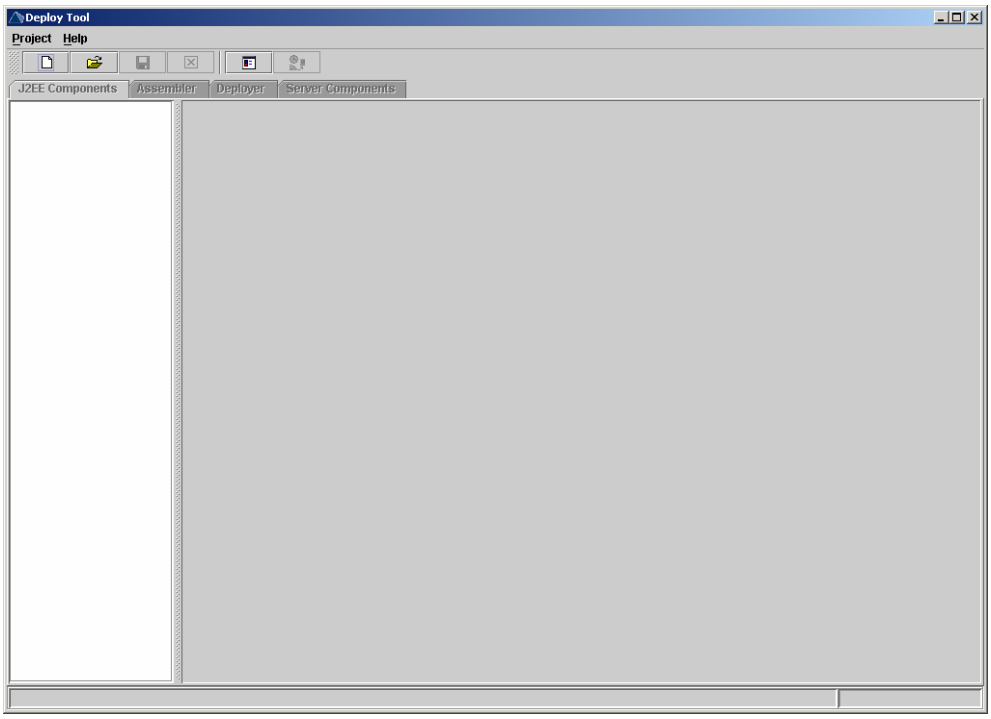
```
<?xml version='1.0' encoding='UTF-8'?>
<!DOCTYPE connector-j2ee-engine SYSTEM 'connector-j2ee-engine.dtd'>
<connector-j2ee-engine>
<jndi-name>ISCF</jndi-name>
<pool-params>
   <max-connections-number>10</max-connections-number>
          <max-time-to-wait-connection>60</max-time-to-wait-connection>
          <expiration-control>
   <connection-lifetime>60</connection-lifetime>
</expiration-control>
</pool-params>
<connector-group>
</connector-group>
</connector-j2ee-engine>
```

6. Include the **connector-j2ee-engine.xml** file under the **/META-INF** folder extracted from ISRA.rar. The following screen displays the **connector-j2ee-engine.xml** file included in **/META-INF** folder.

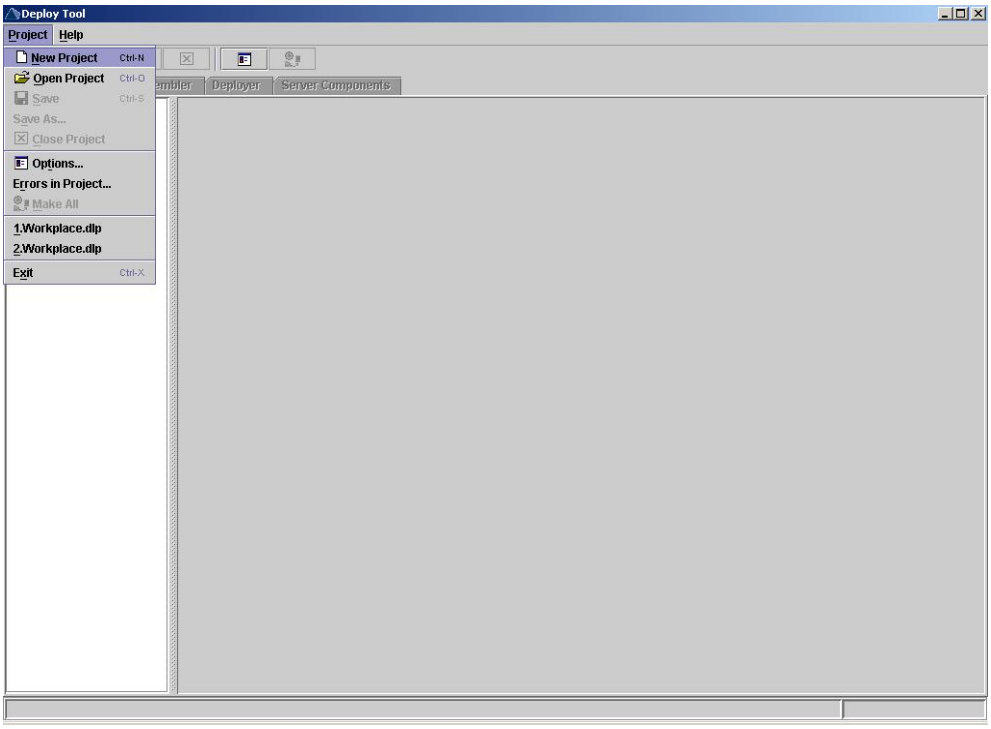




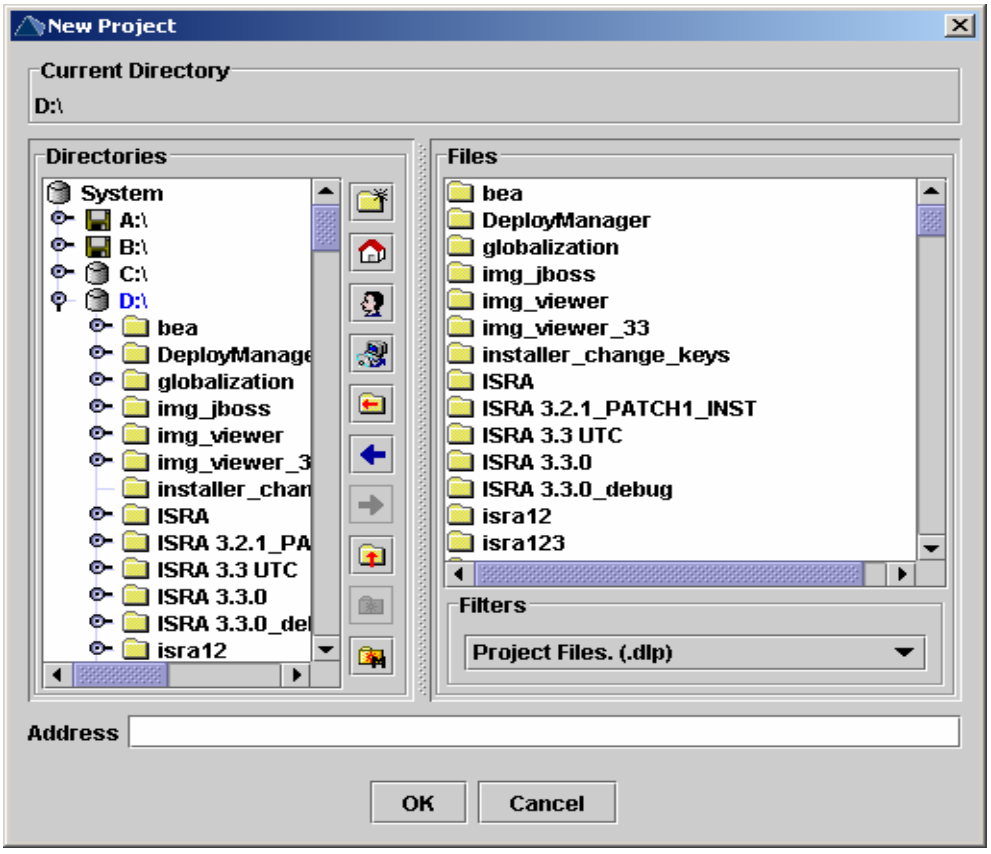
7. In the command prompt, navigate to temporary folder where ISRA.rar is extracted. Create ISRA.rar using the JAVA command: **jar -cvf ISRA.rar *.***. The following screen appears:
8. Run the **DeployTool.bat** file from the following location `\\usr\<sap was instance>\J2E\JC00\j2ee\deploying` to start the deploying tool of SAP WAS 6.40. The following screen appears:



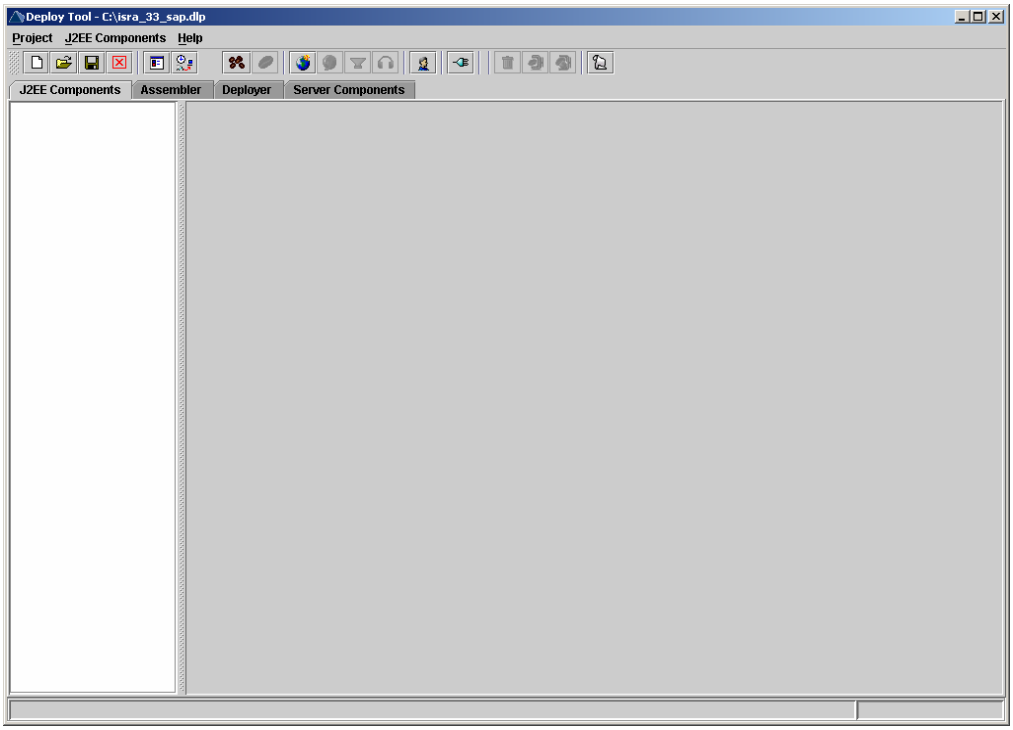
9. Click **Project > New Project** to create a new deployment project.



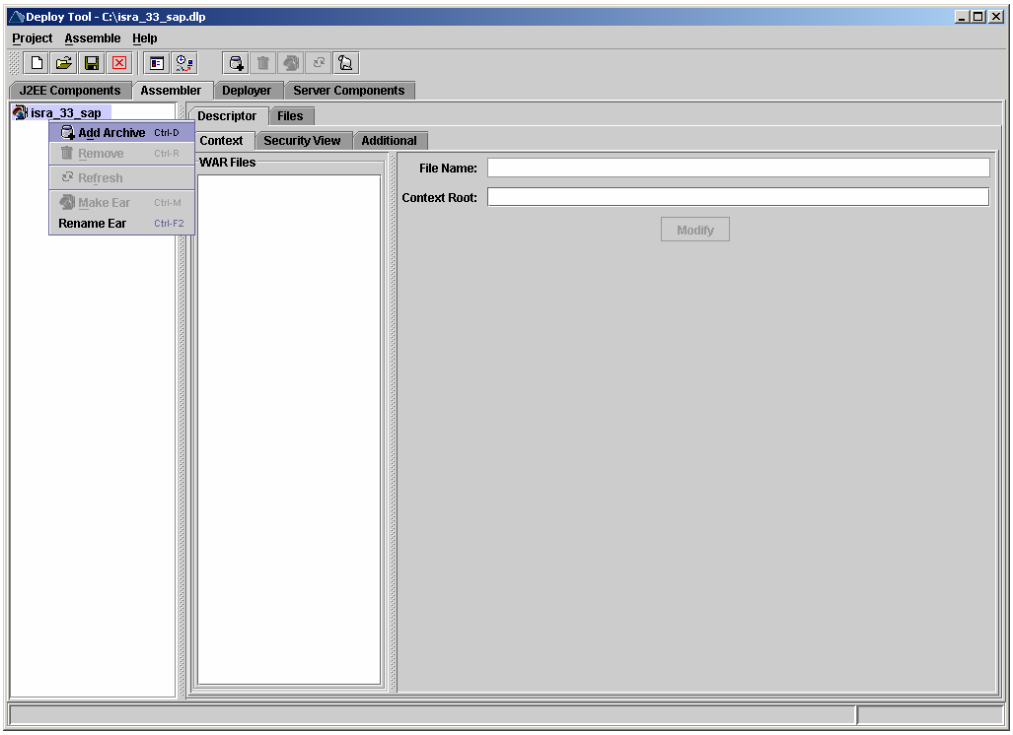
10. The following screen appears:



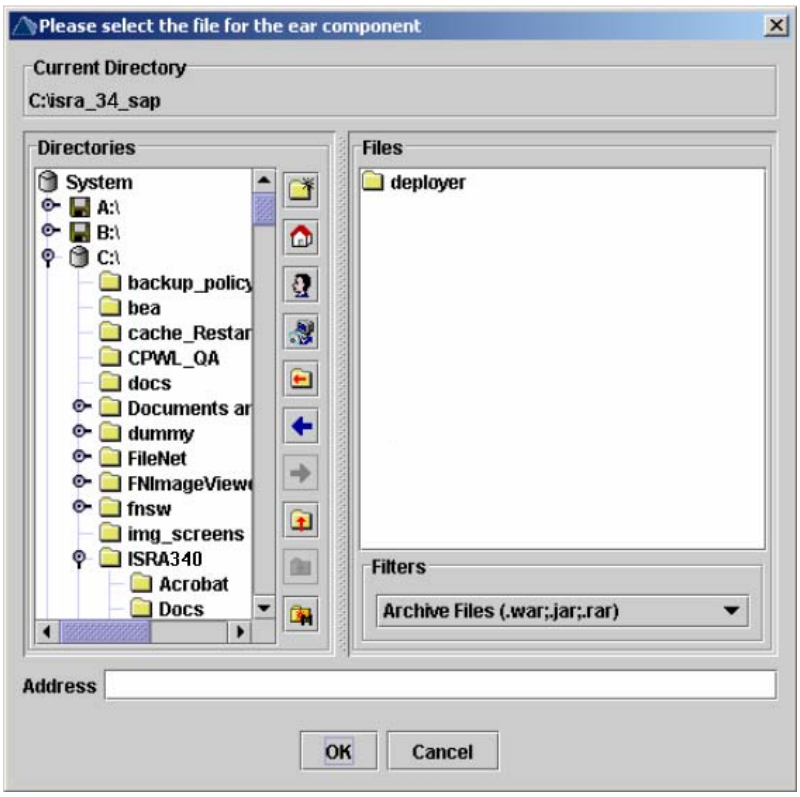
11. Select the directory location from the **Directories** frame and specify the project name in the Address text box. Then click **OK**. The following screen appears.



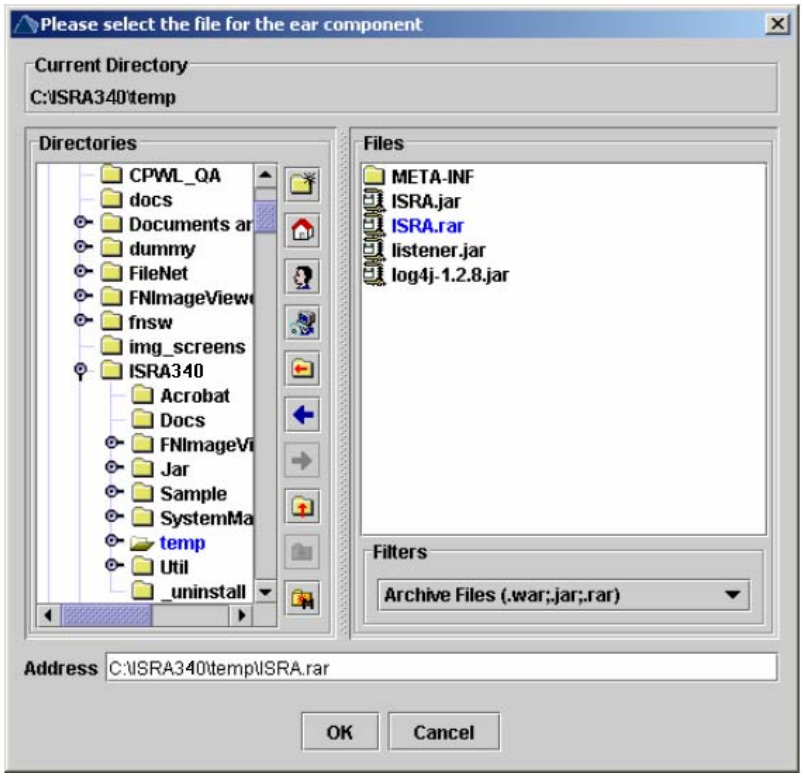
12. Click the **Assembler** tab. Right-click on project name (here it is **isra_34sap**). The following screen appears:



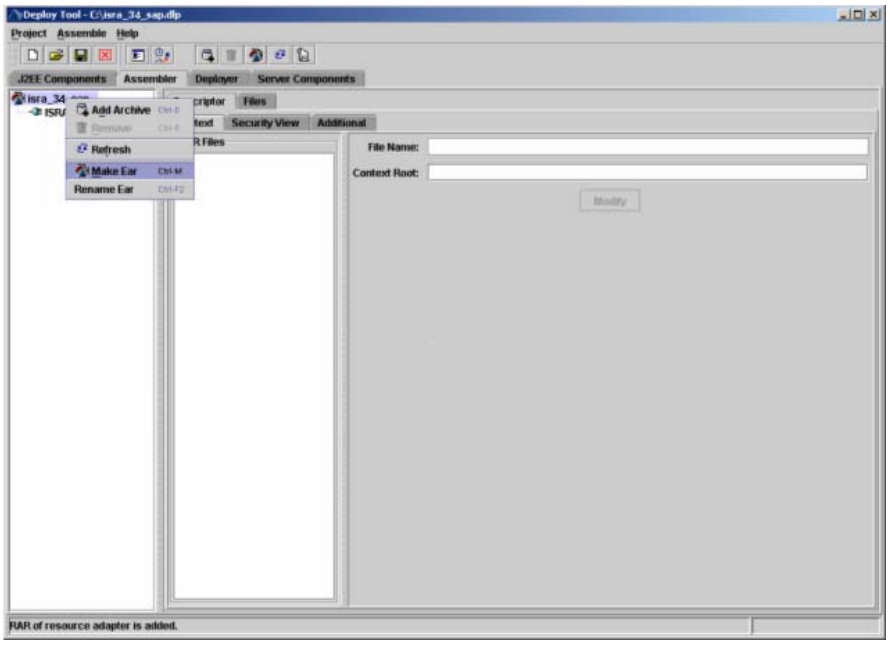
13. Click the **ADD Archives** icon. Following screen appears.



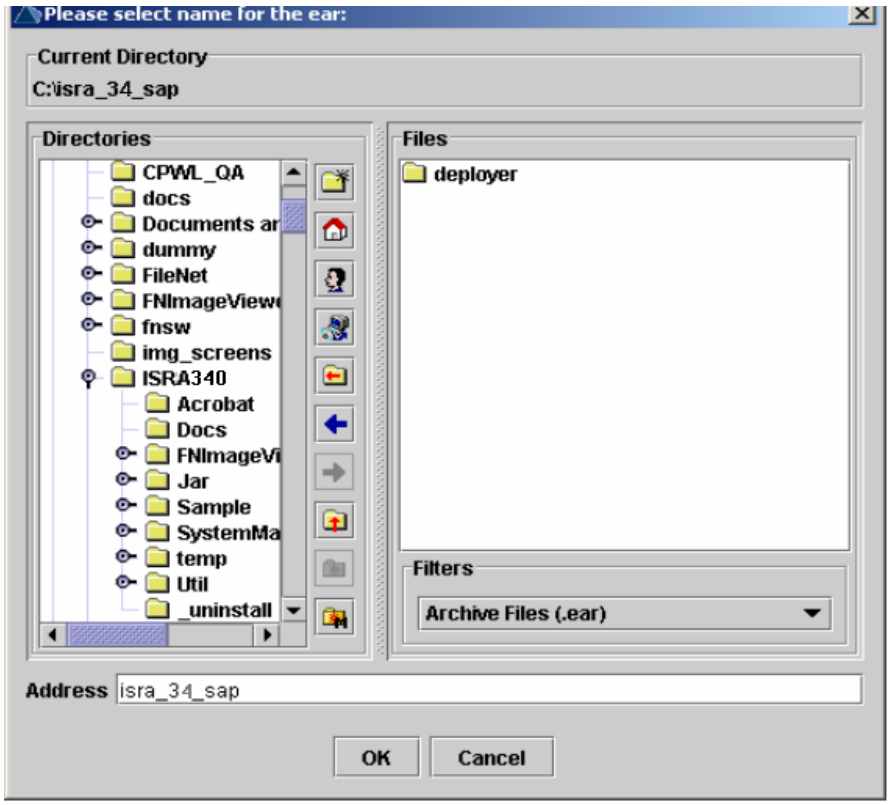
14. Select the directory location of the installed **ISRA.rar** from the Directories frame and click **OK**. The **ISRA.rar** is included in the current project.



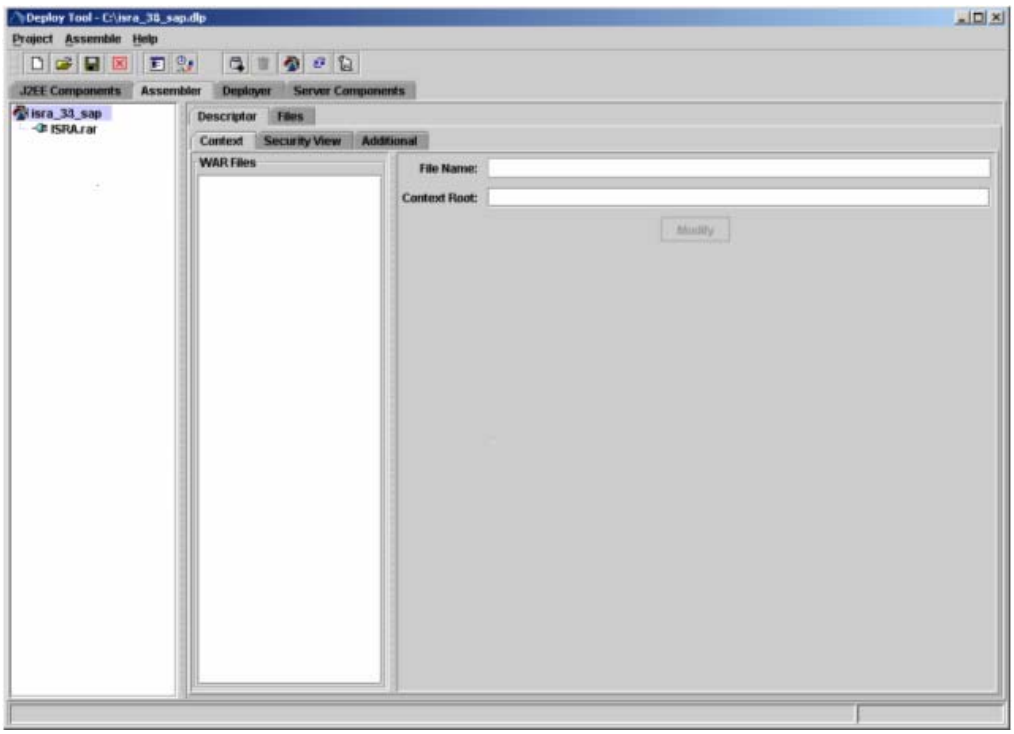
15. Right-click on project name (**isra_34_sap**) to open the context menu, and navigate to **Make Ear**.



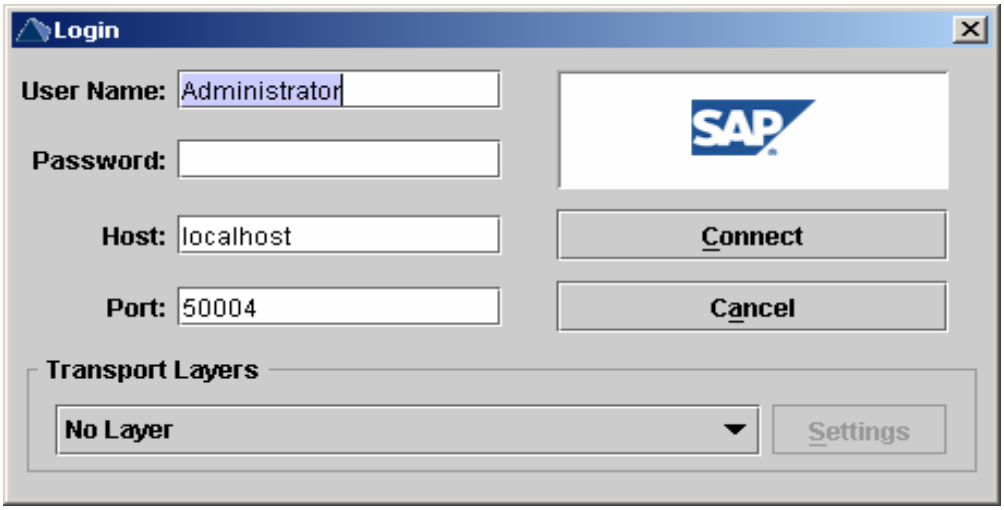
16. The following screen appears.



17. Specify the directory location of the ear file from the Directories frame and enter the name of the ear file in the Address textbox. Click **OK**. The following screen appears:

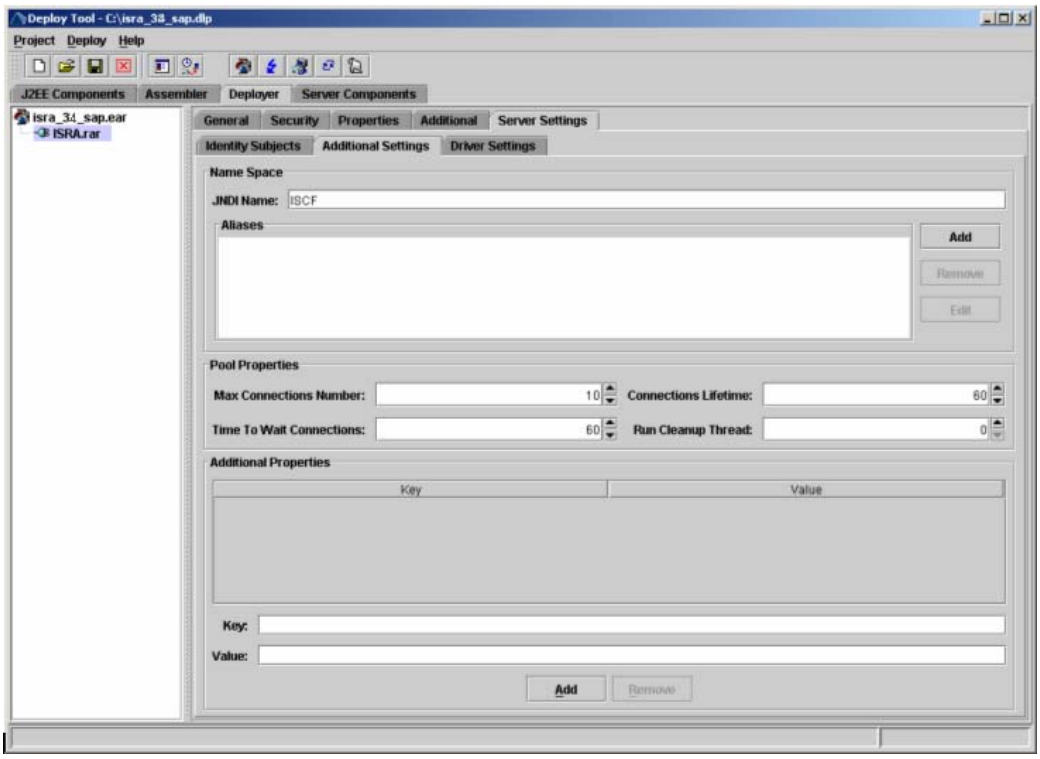


18. Click the **Deployer** tab. Click the **Connect** icon to open the SAP login dialog box. The following screen appears.

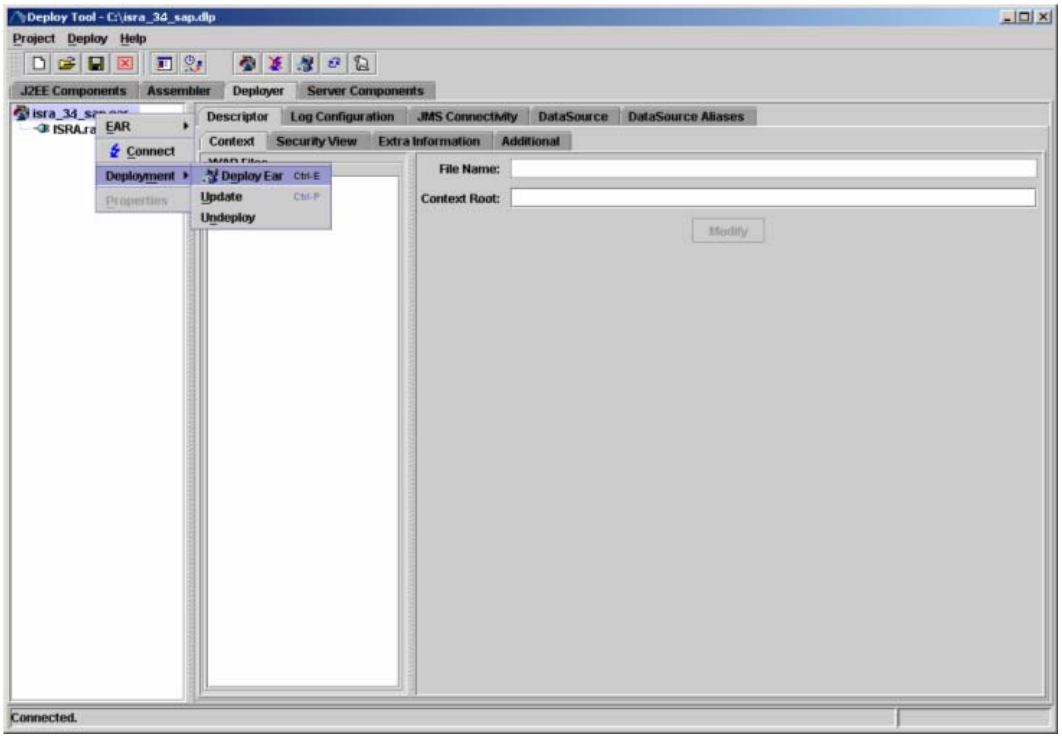


19. Enter the **Password**, and click **Connect**.

20. Click on the **ISRA.rar** link under **isra_34_sap** project. Select **Deployer > Server Settings > Additional Settings** tab to specify the JNDI name.

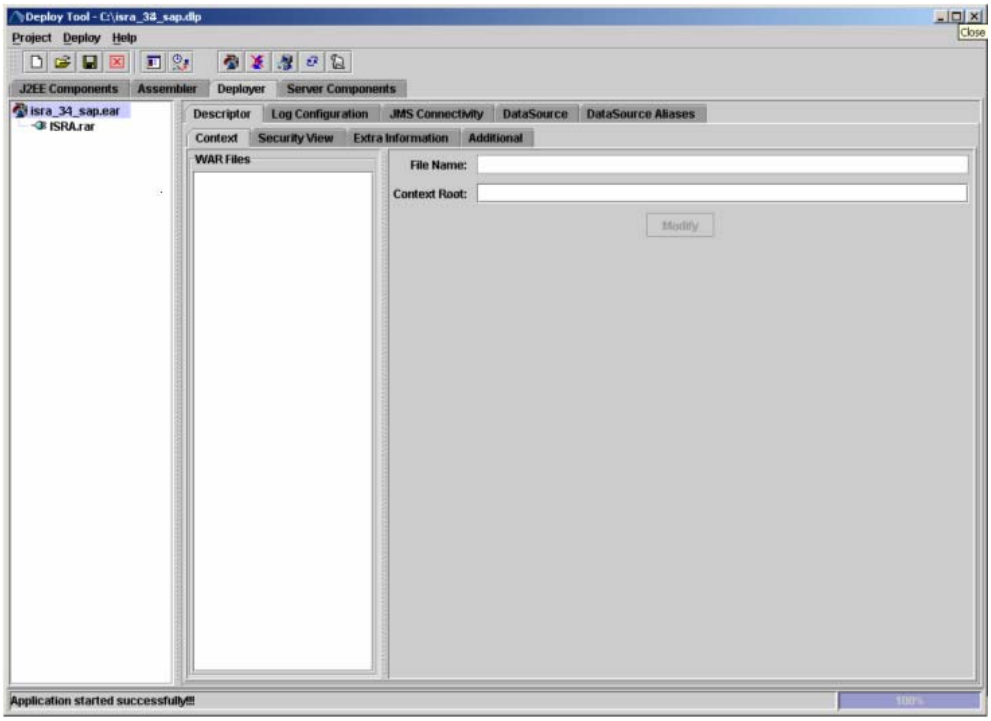


21. Right-click **isra_34_sap** project to open the context menu. From the context menu click **Deployment > Deploy EAR**.



22. The server may take some time to complete the deployment process. The deployment status will be displayed as shown in the following screen:

23. Click **Yes** to start the deployed application. The following screen appears with a message in the status bar "Application Started Successfully".



24. Deploying ISRA is completed.

25. Next step is to complete the Mandatory steps necessary for ISRA. Refer to Mandatory Requirements for ISRA section before restarting the Application Server.

Explanation for Terminal name and ISRALock folder

The first instance of ISRA deployed on an Application Server creates a folder named "ISRALock" and a **file named**[1] "ISRALock.0" inside that folder. The counter "0" in the file name "ISRALock.0" increments subsequently with each new deployment of ISRA and the same is appended to the terminal name generated for an ISRA instance. This folder is created in the path resolved by the system property "user.dir", which is the same path where the ISRA logs are generated. This functionality has been introduced in ISRA 3.2.1 to support vertical cluster environment.

[1] ISRALock.0 (0-9 and a-z) would be created in ISRA 3.4 FP3 and above. Prior versions of ISRA would have files created as ISRALock.0000 (0000-9999).

Terminal name identifies ISRA instance with a unique id so that IS can distinguish each ISRA client uniquely for communication. Earlier, the terminal name used to be of the form "SV<instance number>.<Counter1>@IPAddress". In case of a vertical cluster, ISRA can be deployed across the cluster on a single machine. But in such a scenario, all the managed server instances in a cluster will have the same ISRA instance deployed and will generate the same terminal name, as the "IPAddress" and "instance number" will be same for all the ISRA instances. The current format of a terminal name generated by ISRA is "R<instance number><Counter1><Counter2>@IPAddress", where Counter2 is the counter appended to the files created in the ISRALock folder as mentioned above. The files created in the ISRALock folder will be automatically removed if the managed servers are gracefully shut down (in case of proper JVM shutdown).

See Configurable ra.xml Properties section below for "DeploymentInstance" property setting.

2

ISRA Configuration

This chapter describes the ISRA configuration, deployed on SAP WAS 6.40 Application Server.

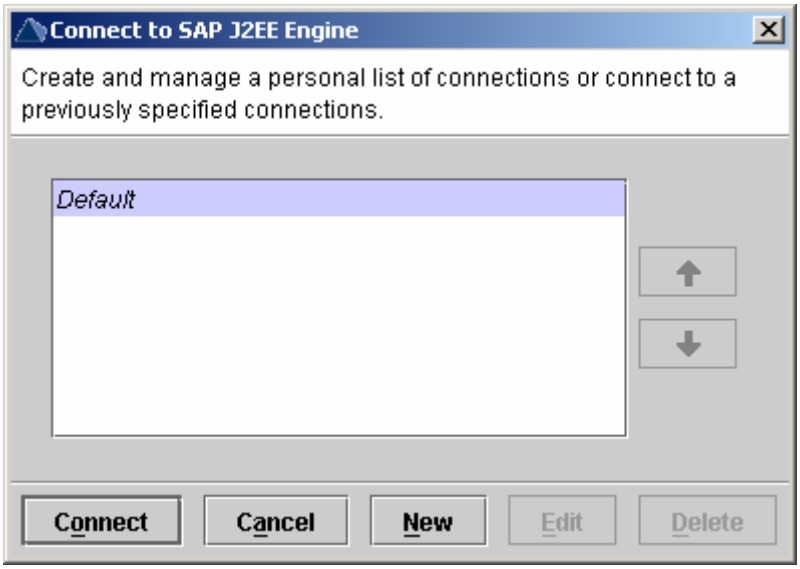
Configuring Deployed ISRA

This section describes how to edit the ISRA deployment descriptor after deployment.

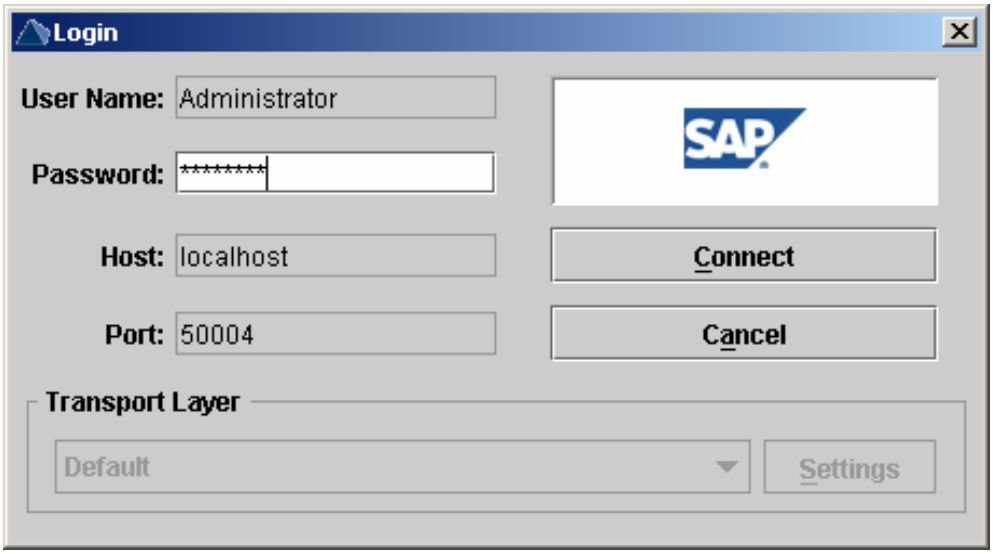
ISRA uses the J2EE Connector Architecture deployment descriptor, called **ra.xml** to define its operational parameters. The deployment descriptor is defined by Sun Microsystems in the J2EE Connector Architecture 1.0 specification. It describes the Resource Adapter related attributes, types, and deployment properties using a standard Document Type Definition (DTD).

To edit the ISRA deployment descriptor, perform the following steps:

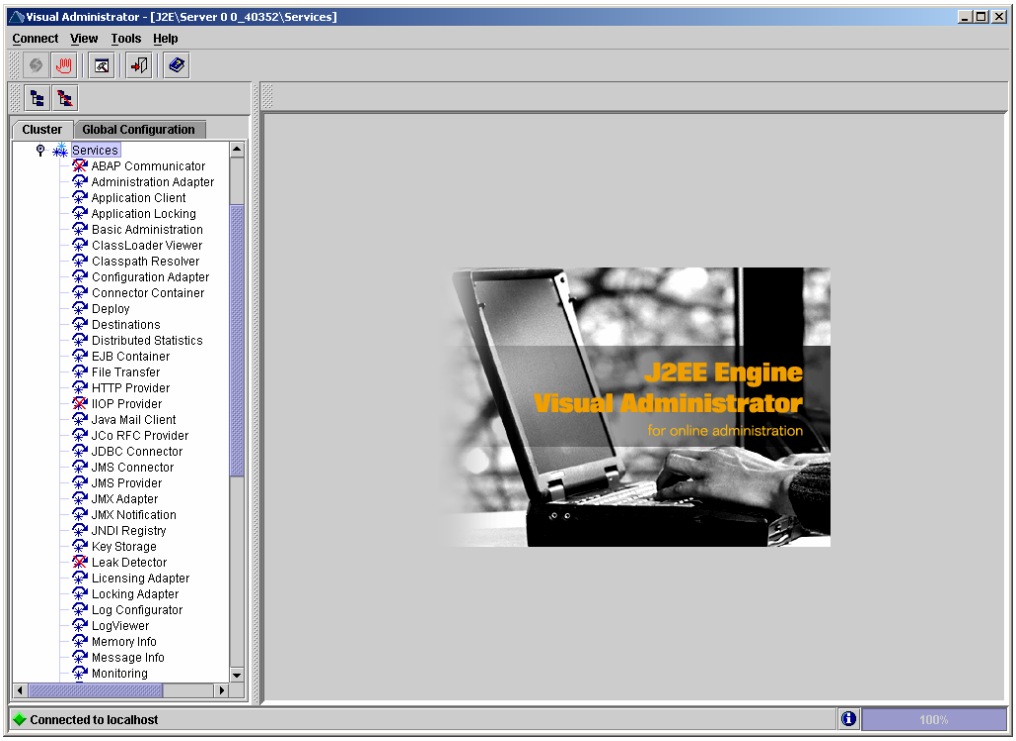
1. Run the **go.bat** file from the following location **`\\usr\<sap was instance>\J2E\JC00\j2ee\admin`** to start the Visual Administrator of SAP WAS 6.40. The following screen appears.



2. Click **Connect**. The following screen appears.

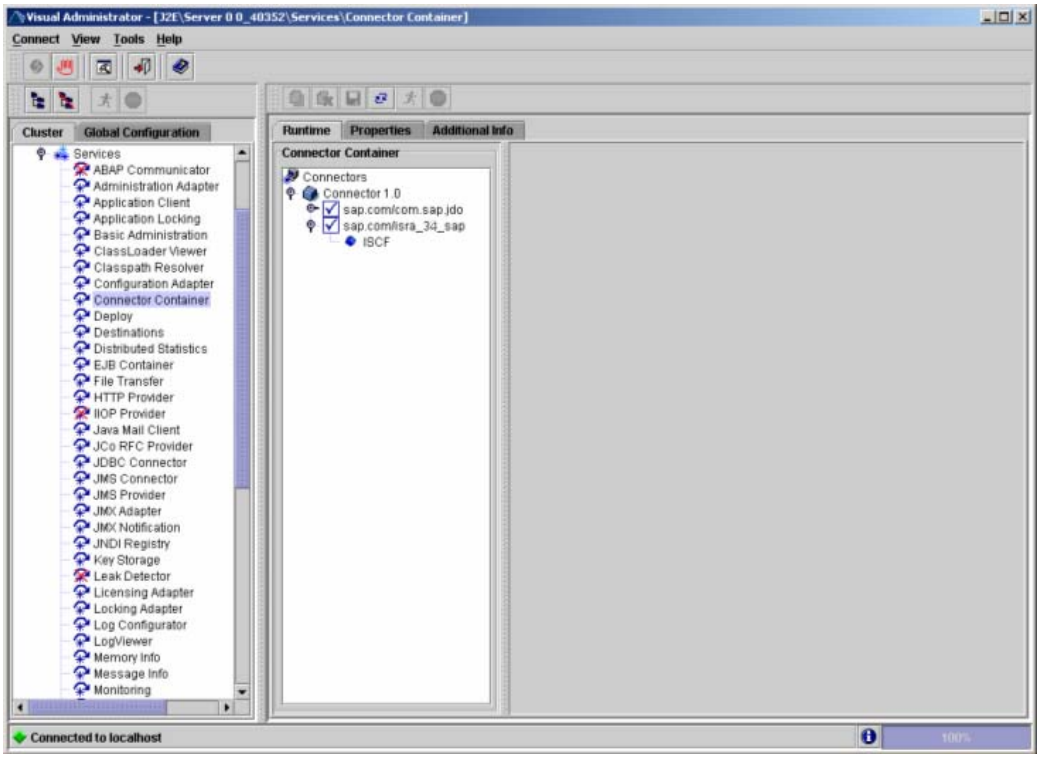


3. Enter the **Password**, and click **Connect**. The following screen appears.

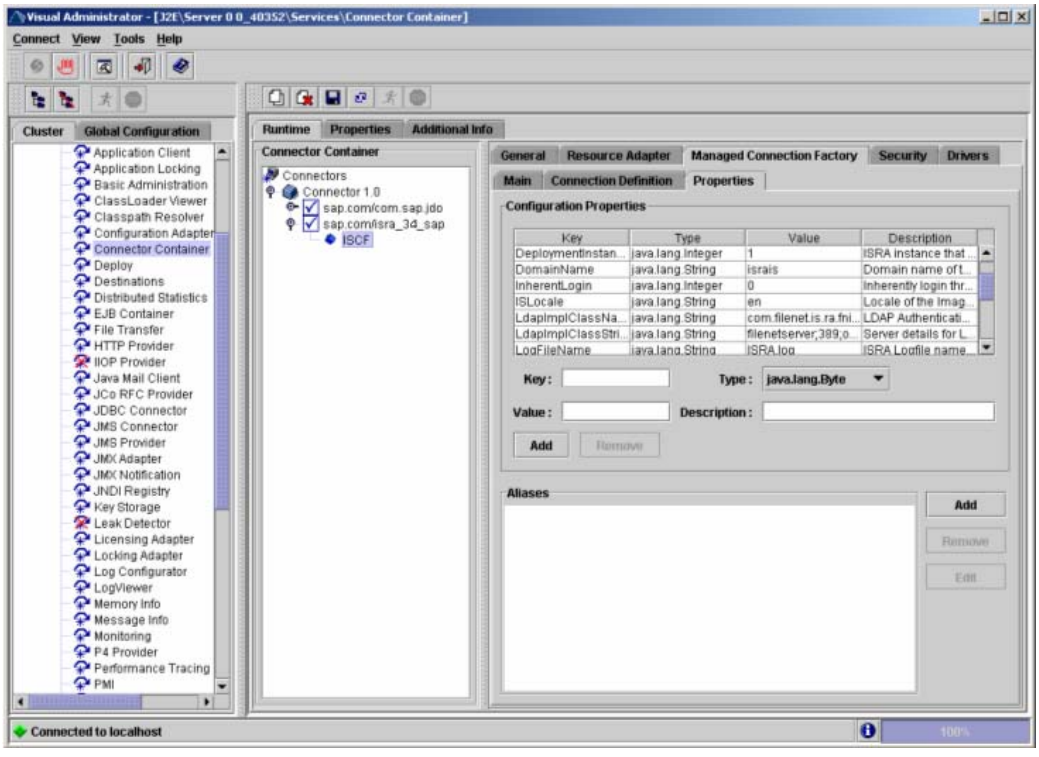


4. Navigate to **J2E > Server 0 <id> > Services**. Expand **Services** and click **Connector Container**. The following screen appears.

Note The id of Server 0 depends on the patch level version of **J2EE Engine** used in SAP NetWeaver WAS 6.40.



5. Under **Connector container**, navigate to **Connectors > Connector 1.0 > sap.com/isra_34_sap > ISCF**. The following screen appears.



6. Under the **Managed Connection Factory** tab, open the **Properties** tab. All the configurable properties are listed here.

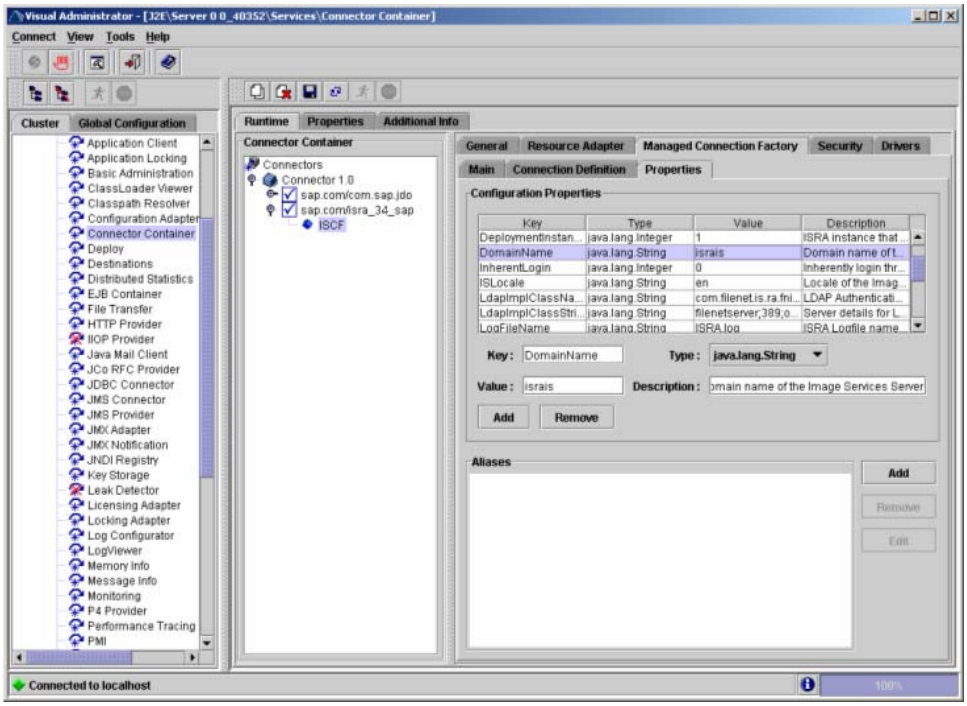
The user can make changes to the parameters as required. For details, refer to Changing ISRA Specific Parameters section.

Changing ISRA Specific Parameters

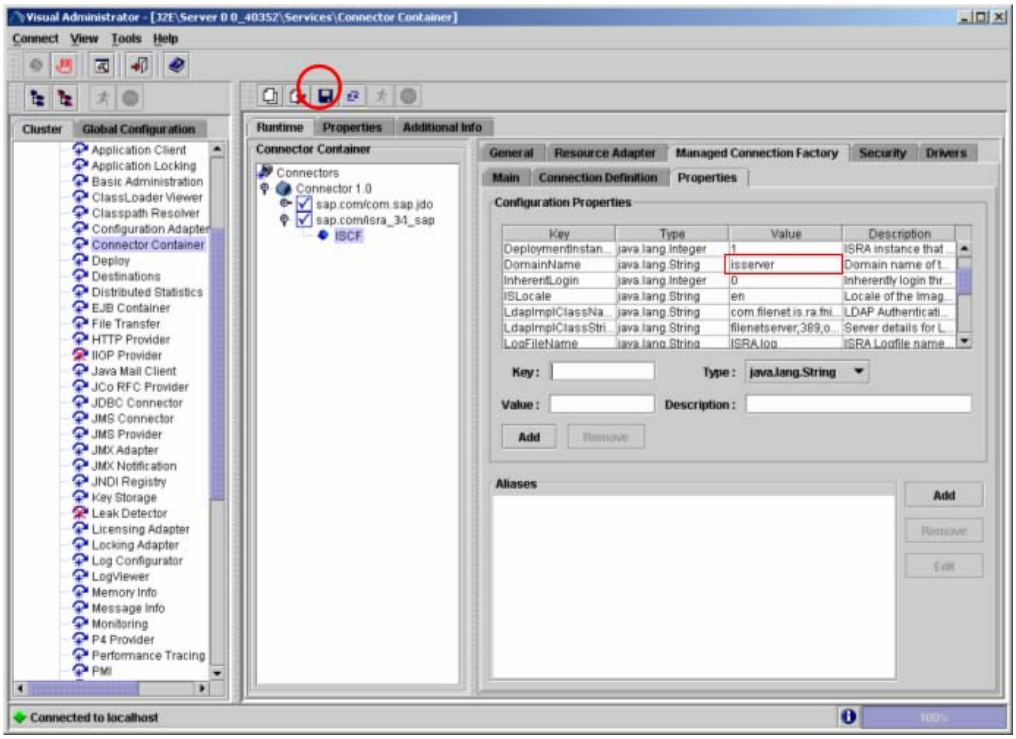
After ISRA is deployed, some parameters of the Deployment Descriptor need to be changed to configure it for the target IS server.

To change the ISRA specific parameters, perform the following steps:

7. In the SAP NetWeaver Visual Administrator, navigate to the **Properties** tab, as shown in the above figure, under **Managed Connection Factory** tab in **ISCF**. Refer to Configuring Deployed ISRA section for details. The following screen appears.



8. Select the **Key** name under **Configuration Properties** section. For example: **DomainName**. The details of the key are reflected below the table. Change the values in the fields: **Key**, **Value**, **Type**, and **Description**, and click **Add** button (For Example, here **DomainName** property is changed from **israis** to **isserver)**. The following screen appears.



9. After changing the value against the required property, click **Save Changes** icon. The following confirmation message appears.

10. Click **OK**.

Configurable ra.xml Properties

The configurable properties to be set (modified) in **ra.xml** are:

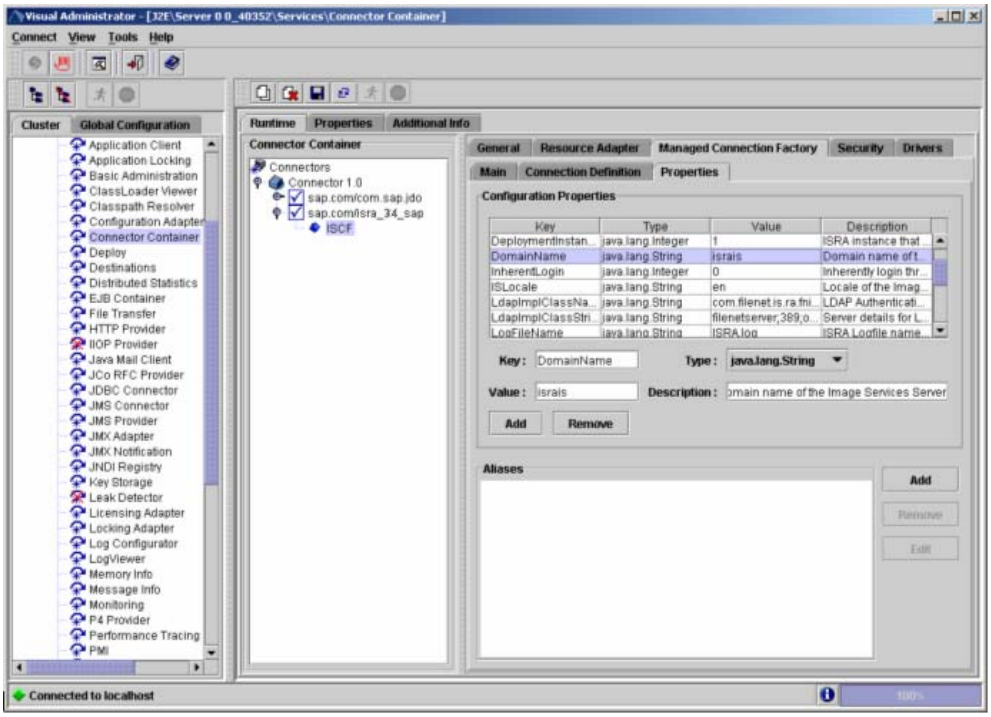
- DomainName
- OrganizationName
- LoggingLevel
- LoggingMode
- PageBufferSize
- CacheRefreshInterval
- SecurityCacheMode
- MetaDataCacheRefreshMode
- LogFileName
- LogFileSize
- LdapImplClassName

- LdapImplClassString
- InherentLogin
- DeploymentInstance
- PCHLogging
- AllowAnonymousUser
- RPCLogging
- ClientCodepage
- GMTEnabled flag
- ISLocale
- IgnoreObjectBusyMsgInDocMigration

Note	Please note that all properties described in the deployment descriptor are mandatory and no property should be removed. Default values should be specified for properties that users do not want to use.

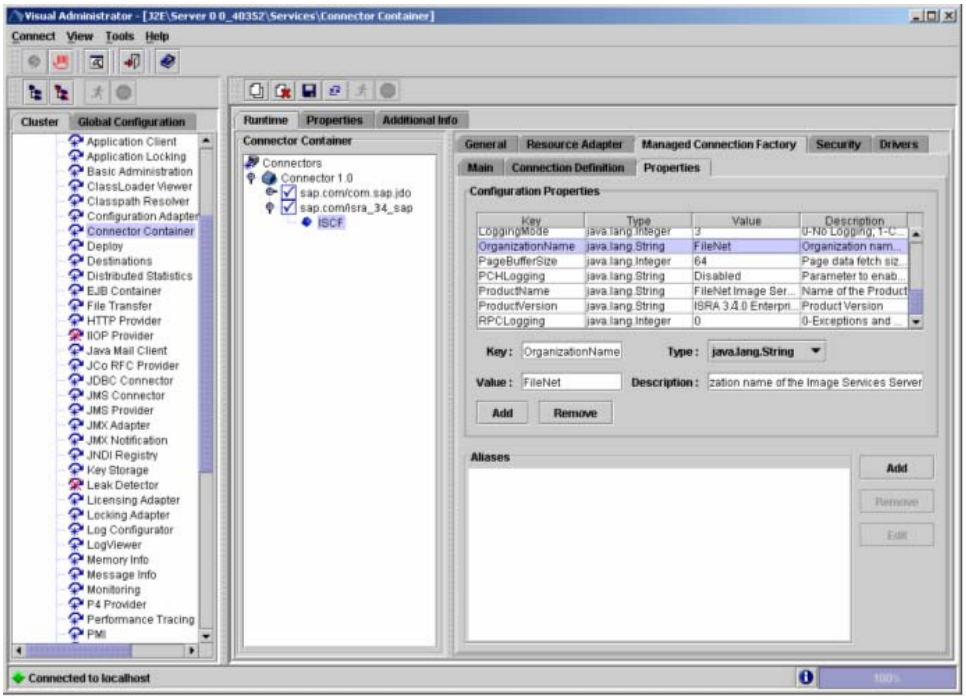
DomainName

This is the domain name of the IS server. The default value of DomainName is FileNetIS. It should be set according to the operational environment. Change this property to the domain name of the IS.



OrganizationName

This is the FileNet IS organization name. The default value of OrganizationName is IBM. It should be changed according to the operational environment.

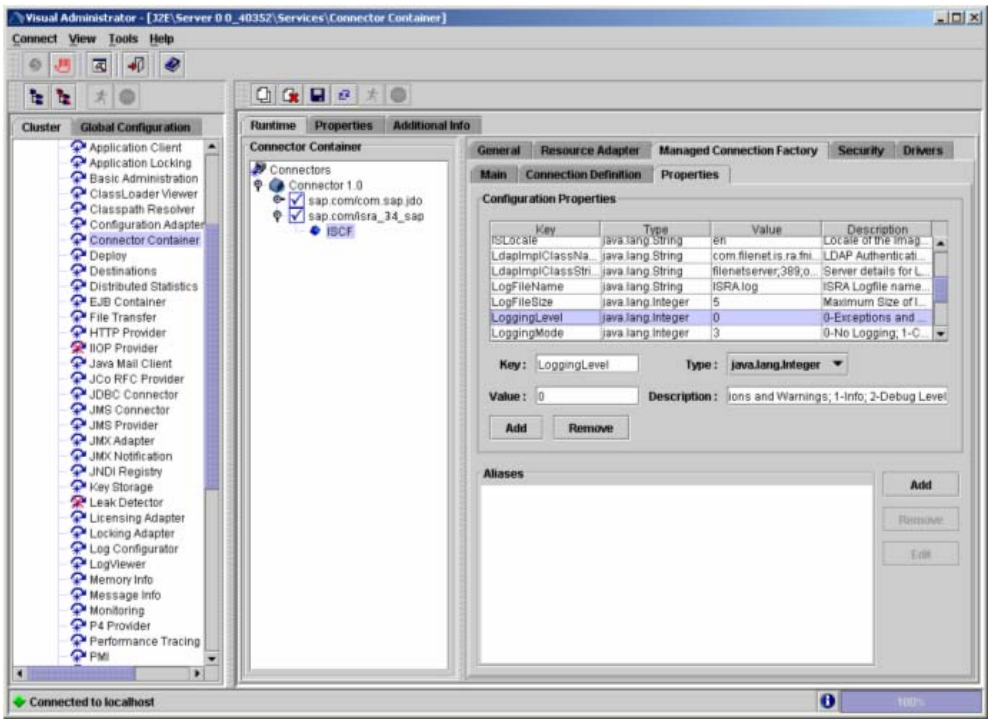


LoggingLevel

This is an integer representing the amount of log information to be generated. The values are dynamically updatable by using the ISRA Console. The valid values are:

Logging Level	Description
-1	Disables ISRA Logging
0	Only Error and Warning messages will be logged by ISRA
1	Informative messages will also be logged by ISRA
2	Prints debug message in the log

The default value of LoggingLevel is 0. It can be modified to other valid Logging Levels. It is recommended to keep the logging level at 0. LoggingLevel can be increased if user encounters a problem while accessing ISRA through the application.

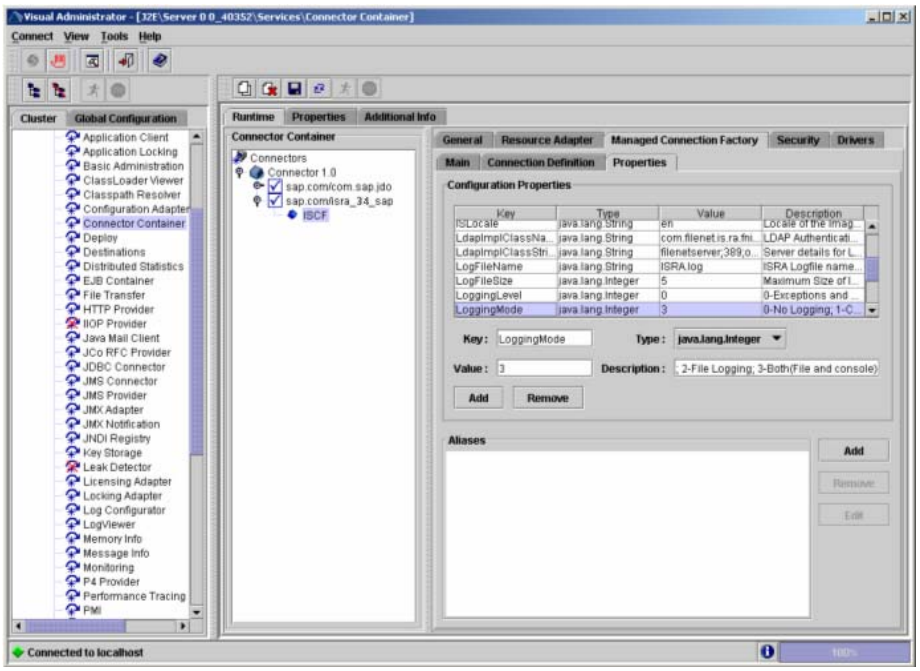


LoggingMode

This is an integer representing the logging mode. The valid values are:

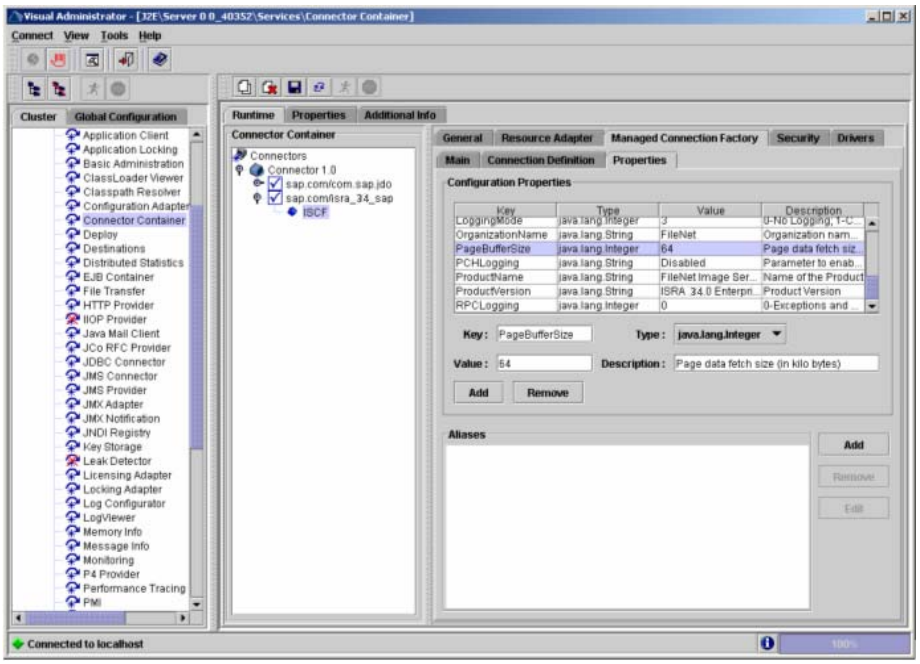
Logging Mode	Description
0	No Logging
1	Only console logging
2	Only file logging
3	Both console logging and file logging

The default Value of LoggingMode is 3. It can be changed to other valid values according to the operational environment.



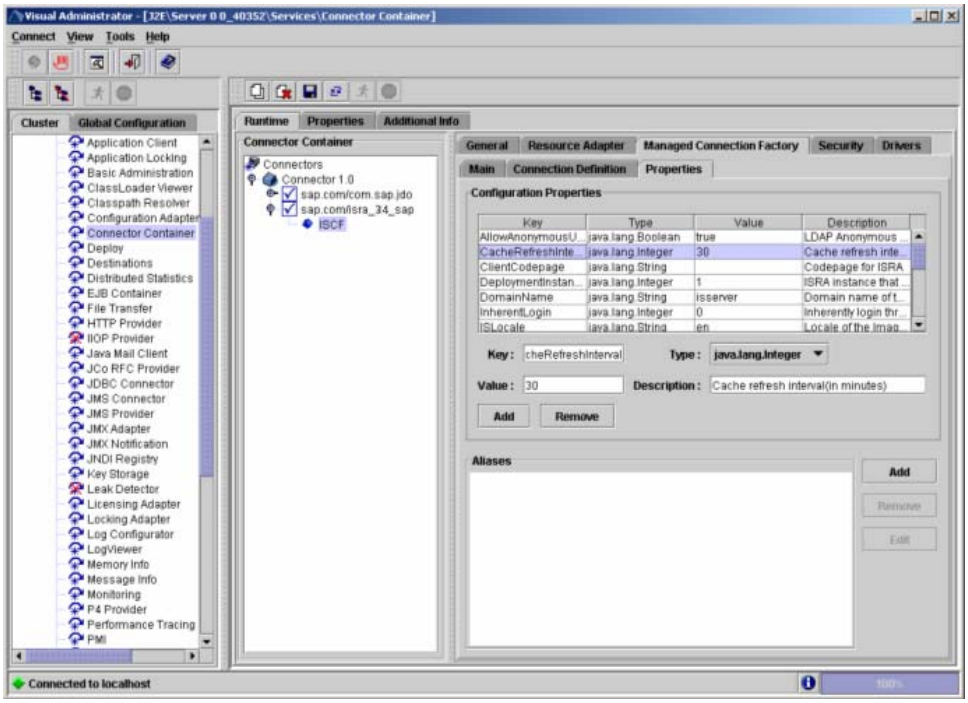
PageBufferSize

This is an integer value specified in kilobytes (KB). PageBufferSize specifies the chunk size used by ISRA to transfer page data to and from IS. The default value is 64 KB. Specifying a higher value will require more memory for the Application Server process, and a low PageBufferSize will mean more trips to IS. The value should be set to an average page size on the target IS. The document buffer size on IS and ISRA should match to optimize image transfer performance.



CacheRefreshInterval

This is an integer value specified in minutes. ISRA stores meta-data information like Document class, Indices, menu details etc. in a local cache for faster retrieval. ISRA refreshes the cache information based on the CacheRefreshInterval value. The default value is 30 minutes.



SecurityCacheMode

This parameter can take two values:

Value	Setting
1	Caches both users and Groups
2	Caches only groups

MetaDataCacheRefreshMode

This parameter can have a value in the range of (0-15).

Value	Setting
0	No Metadata cache refresh
1	Printer cache refresh only
2	Document class cache refresh only
4	Key Fields cache refresh only
8	Menu Value cache refresh only
15	is the default value for this parameter, which will refresh all metadata.

Add corresponding values to get a combination of data.

For example, 1+2 = 3 Printer and Document class data

1+2+4 = 7 Printer, Document class, Key Fields data

0+1+2+4+8 = 15 all data

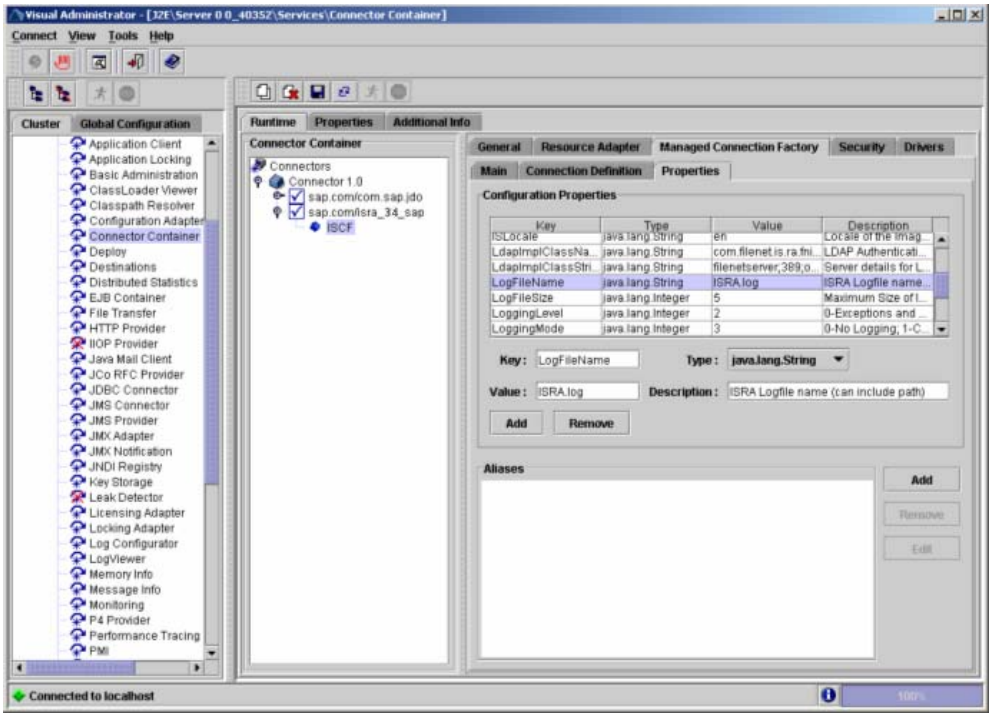
LogFileName

The LogFileName is a string containing the name and path of the log file. The default value of LogFileName is **ISRA.log**. A complete or relative path can be provided to create the log file at a specific location on the disk.

To ensure that each ISRA instance has a unique log file, the following steps will be followed:

- Configurable property "DeploymentInstance" will be read from ra.xml and appended to the log file name. If not specified, the default value "1" will be used as the deployment instance of ISRA.
- The unique ID used for terminal ID generation in ISRA will be appended to the log file name.

For instance, if the log file name configured in ra.xml is **ISRA.log** and the deployment instance is 1, the modified log file name would be **ISRA_1_0.log**. Here, "0-9 and a-z" is the unique ID[2] generated at run time. This ensures a unique name of the log file for each instance of ISRA.

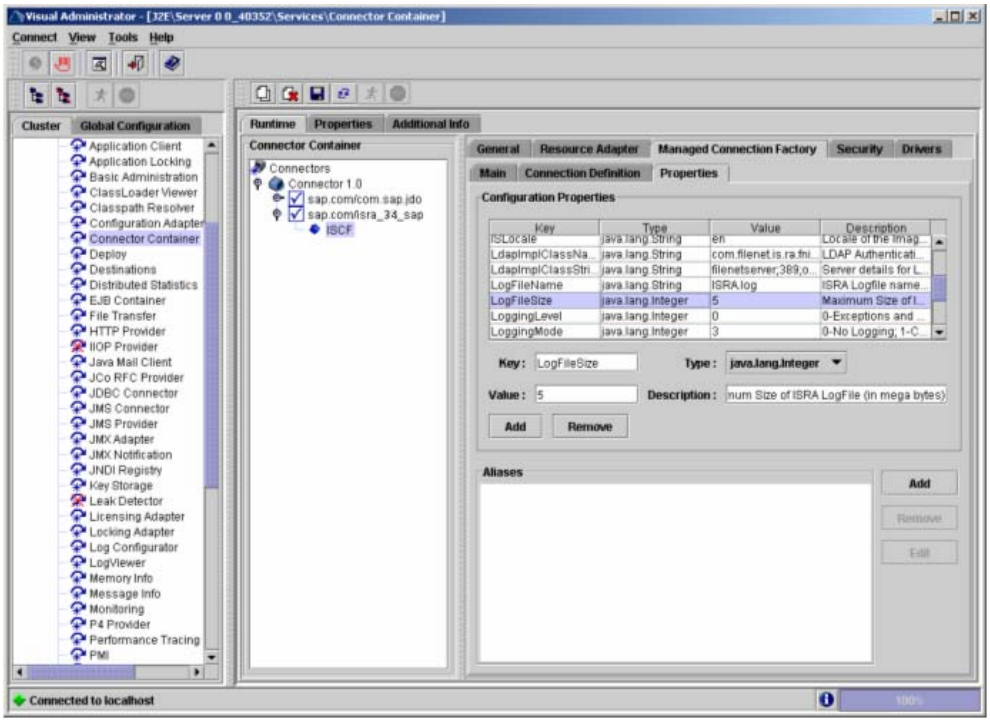


LogFileSize

This is an integer representing the maximum size of the log file in Megabytes (MB). When the size of the file reaches this maximum limit, the log file is

[2] The modified log file name would be ISRA_1_<unique-ID>.log. The value for unique ID is 0-9, a-z in ISRA 3.4 FP3 and above. Older versions of ISRA use the unique ID value between 0000-9999.

renamed and a new file is created with the same name. For example, **ISRA_1_0.log** is renamed to **ISRA_1_0_1.log**, and a new file **ISRA_1_0.log** is created. The default value of LogFileSize is 5MB. Automatic purging of old ISRA log files has been implemented leaving behind only 5 latest versions.

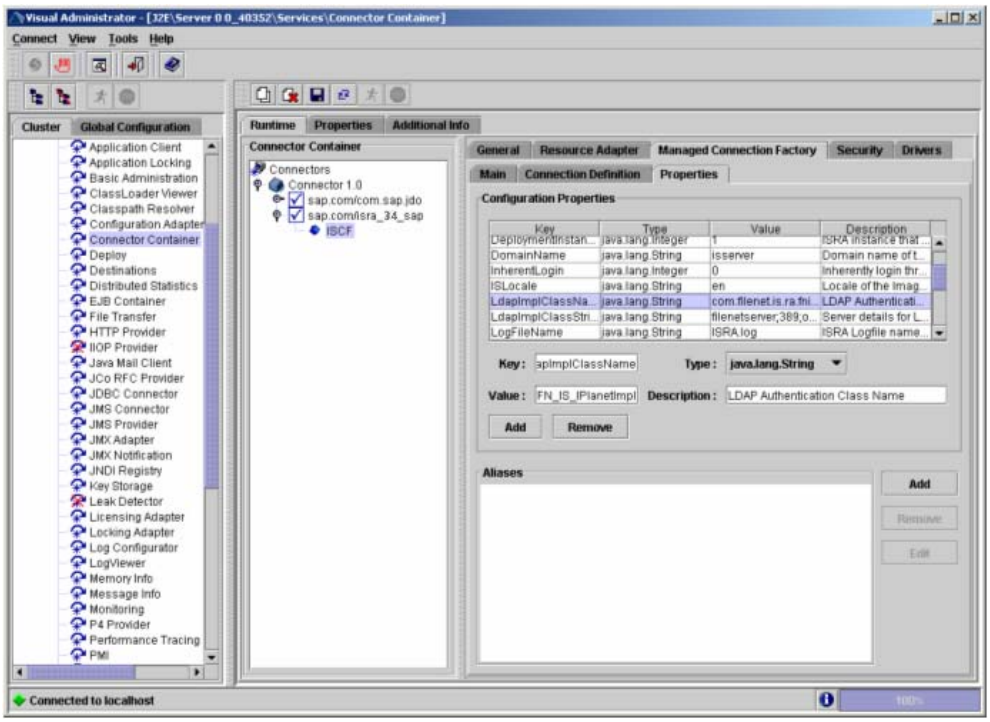


LdapImplClassName

It is the name of the Implementation class for LDAP Authentication. This parameter contains the complete path of the LDAP Implementation class to be entered along with the LDAP Implementation Class Name.

The default value is ‘com.filenet.is.ra.fnis.FN_IS_IPlanetImpl’.

The value of the property for LDAP implementation for Active directory is com.filenet.is.ra.fnis.FN_IS_ActiveDirImpl and for Novell NDS is com.filenet.is.ra.fnis.FN_IS_NovellNDSImpl.



LdapImplClassString

This parameter is a general string that takes in all the LDAP Server specific parameters required for authentication. It takes the following inputs:

- Server Name – Name of the Server/ Machine on which LDAP Server exists.

Note In case that the LDAP server is located on a different subnet, it may be necessary to enter IP address or a full domain name.

- Port Number – LDAP Server's port number used for transactions.
- User Path – Organization unit under which the users are filed in the LDAP Directory Server.

The three parameters must be separated by semicolon and must appear in the order - server name, port number and user path. An example of LDAPImplClassString is:

- **For Active Directory**

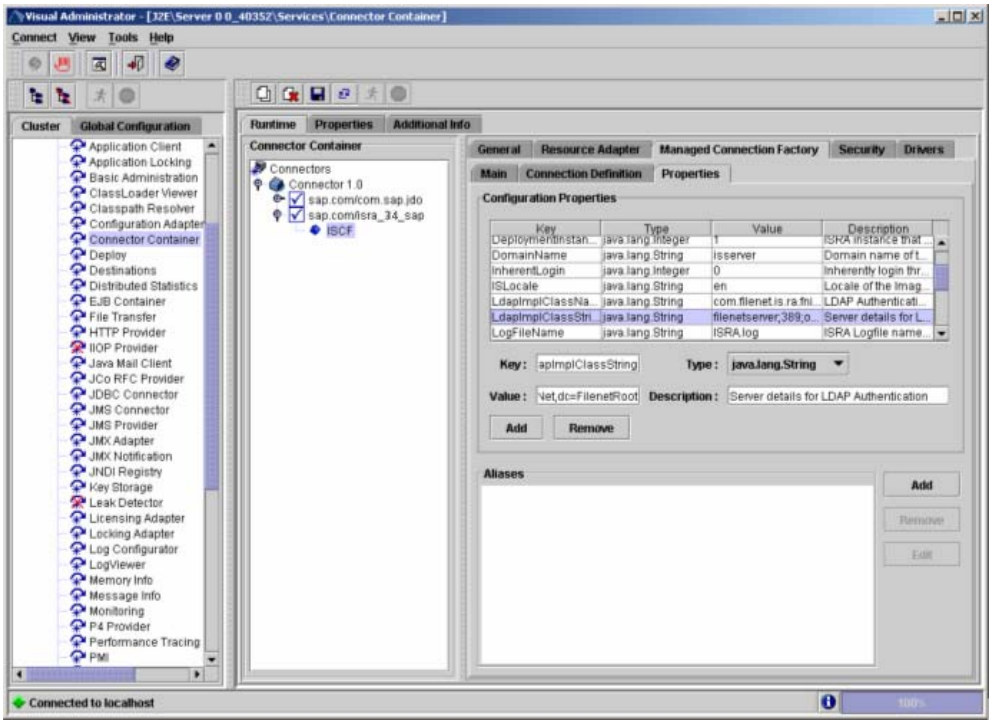
  filenetserver;389;ADS.com

- **For IPlanet**

  filenetserver;389;uid= user1, ou=ISRA, dc=odc, dc=filenet, dc=com

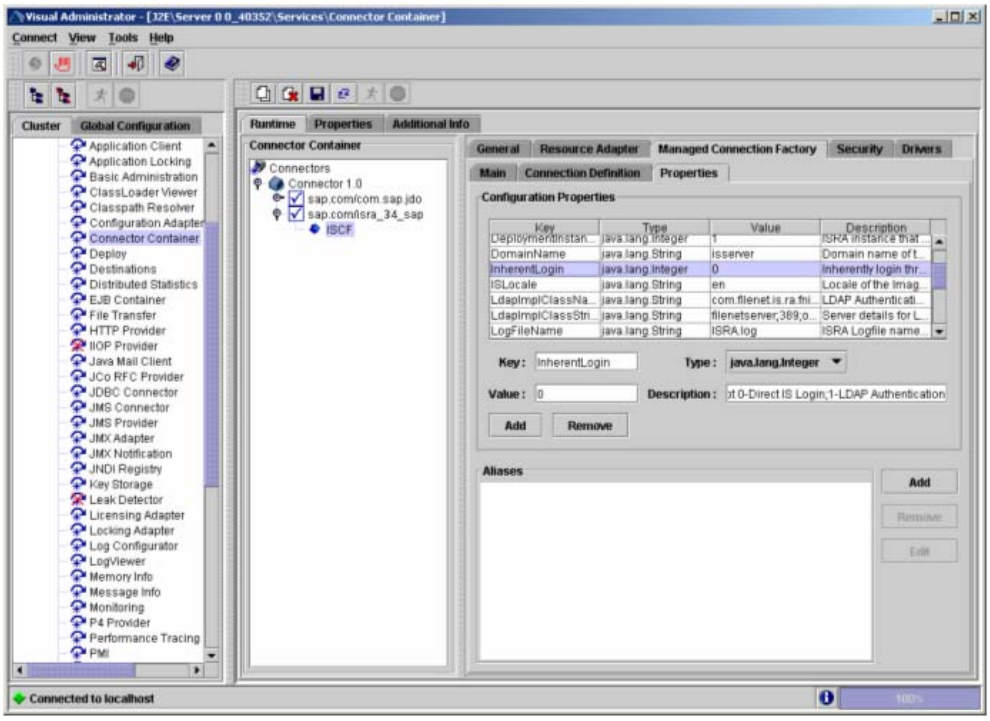
- **For Novell NDS**

  filenetserver;389;cn=user1, ou= ISRA, o=FileNet



InherentLogin

To use LDAP security, the value will be set to 1 from the default value 0.



DeploymentInstance

This is the instance number of ISRA that is being deployed. It is a user defined number between 1 and 100. The default value for this parameter is 1 when none is specified. The maximum is 100, which means that 100 different instances of ISRA can be deployed on a single machine.

Each deployment/JNDI of ISRA on the same Web/Application server requires its own instance number. For example, there can be 2 ISRA applications deployed on the same Web/Application server. Each deployment would require its own instance number and JNDI name. This number is used on the IS server to differentiate between multiple connections from the same IP address of the Web/Application server.

IS always expects unique IDs from ISRA clients, and when it receives duplicate IDs from ISRA, it will reject communication.

So it is always advised to increment the deployment instance number when another instance of ISRA is deployed to achieve its unique id.

Format of the terminal ID is used by ISRA and IS in distinguishing a Unique ISRA instance.

RXXYYYZ@<ip-address>

Where,

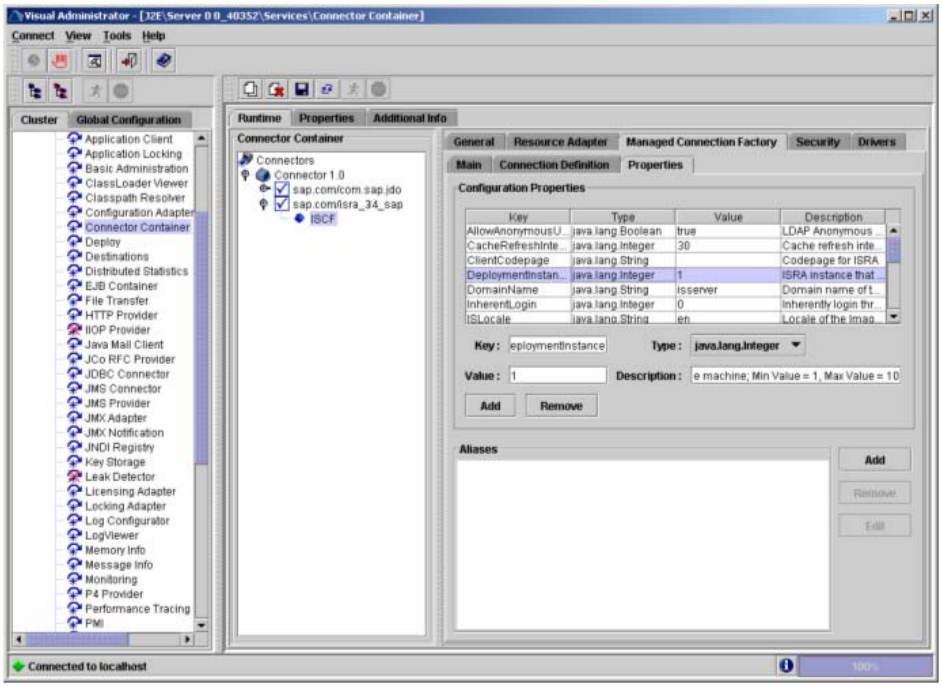
XX = takes values from 1 to 100. If there is only one instance then it defaults to 1. Else the value has to be set to the Number of Deployment instances.

YYY = Counter that increments with the creation of a new LogonSession object (Values in base 36)

Z = Unique ID generated per ISRA instance. Introduced to support ISRA in clustered environment (Unique ID is a number in Base 36)

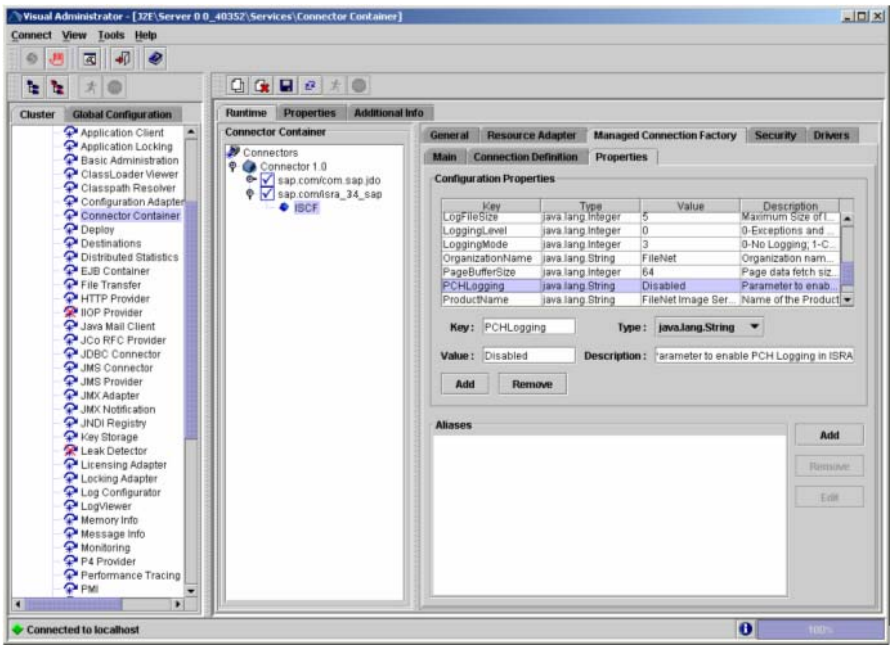
<ip-address> = IP Address of the machine where ISRA is deployed.

The Unique ID is obtained from the place holder file ISRALock.z (where Z=Unique ID) that is created in the ISRALock folder. Each cluster member creates its own place holder file (like ISRALock.0, ISRALock.1 and so on) within the common ISRALock folder.



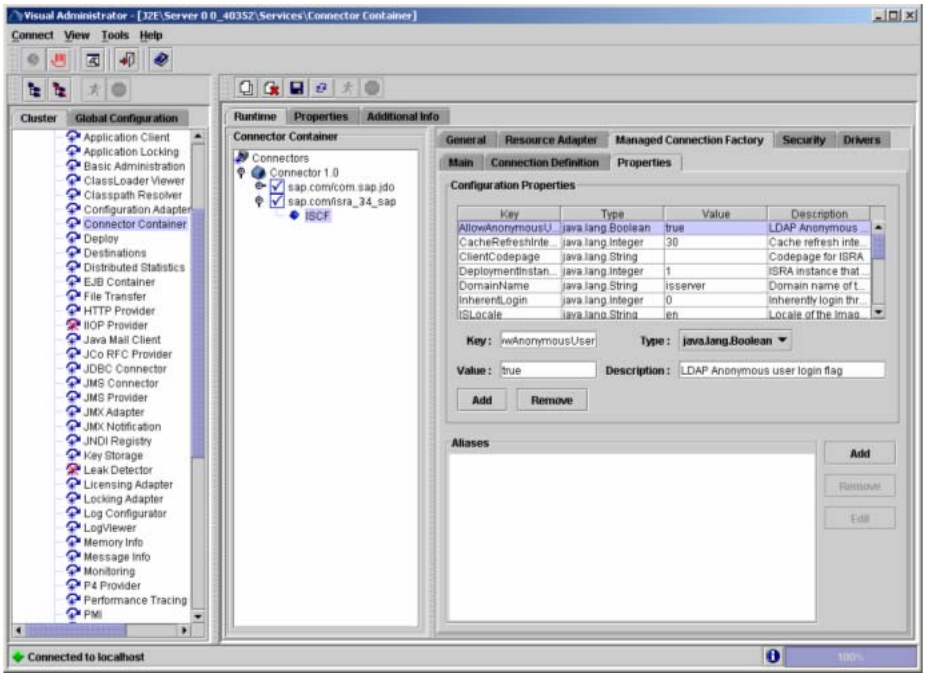
PCHLogging

This is a String parameter to enable/disable PCH logging in ISRA. The default value for this parameter is “Disabled”**.** PCHLogging enables user to log performance monitoring data of IS.



AllowAnonymousUser

It's a Boolean value to allow Anonymous user logon through LDAP, when blank password is passed from user/client. The default value of this parameter is "false".



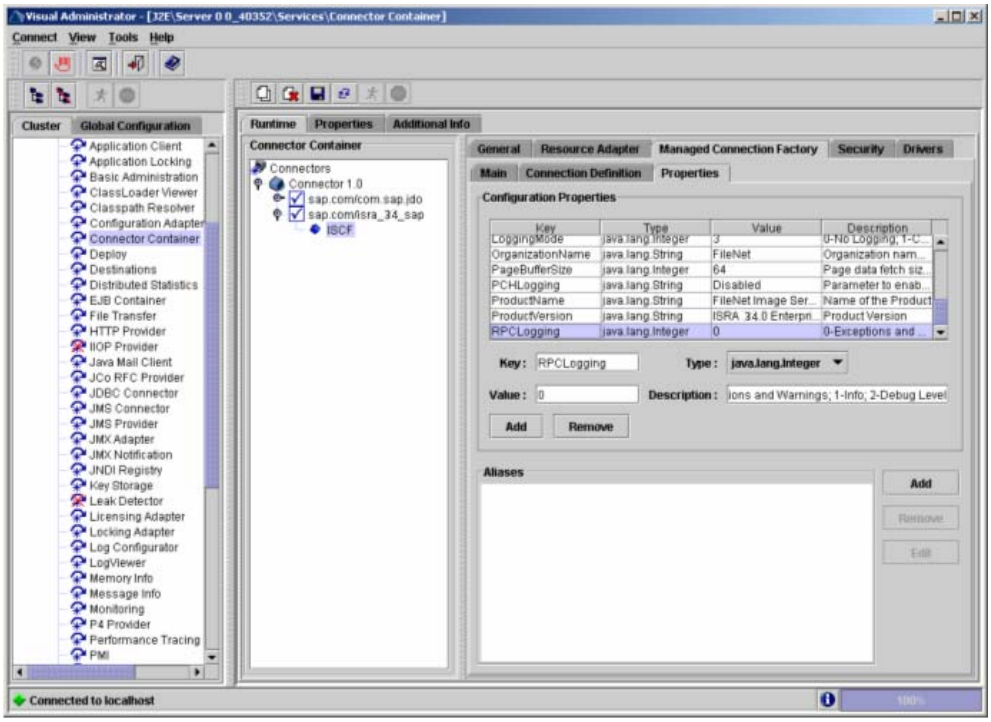
RPCLogging

This is an integer representing the RPC logging level. The valid values are:

RPCLogging	Description
0	No Logging
1	File Logging

The default Value of RPCLogging is 0. It can be changed to 1 if RPCLogging is required.

The RPC LogFileSize is taken as double the size of that of ISRA LogFileSize. So, when the size of the RPC log file reaches its maximum limit (10mb), the log file is renamed, and a new file is created with the same name. For example, ISRA_1_0_RPC.log is renamed to ISRA_1_0_RPC_1.log, and a new file ISRA_1_0_RPC.log is created. Automatic purging of old ISRA RPC log files has been implemented leaving behind only 5 latest versions.

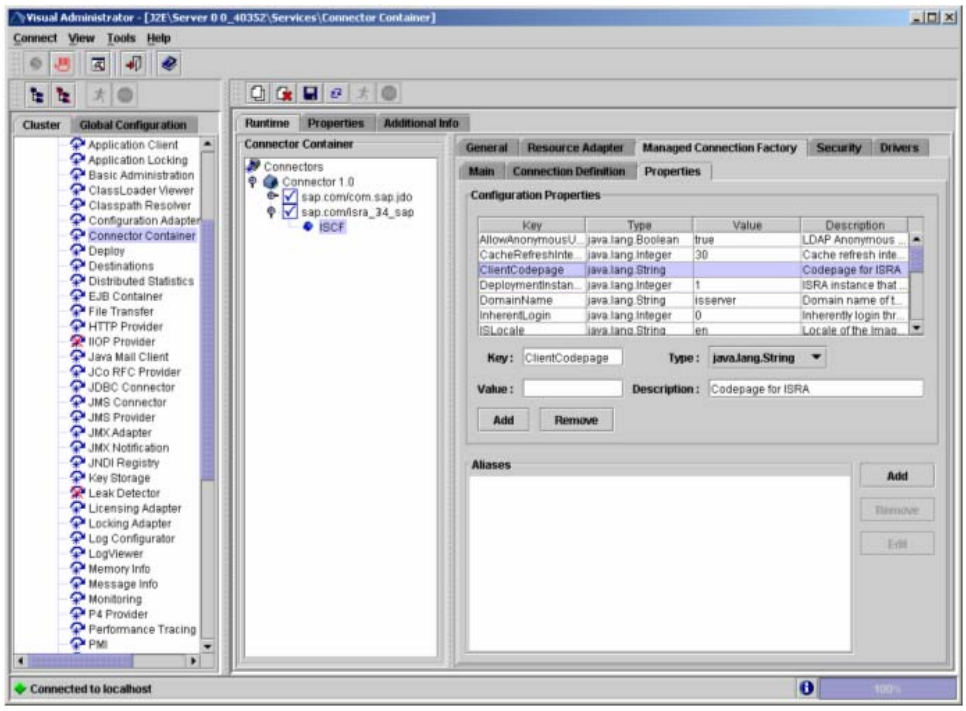


ClientCodepage

This is the code page for encoding Text and Sticky Note annotations. The default value for this parameter is Cp1252.

On Microsoft Windows platform, the Locale character set is the Windows Code Page (1252 for US English and Western Europe) whereas on a UNIX platform, it is an ISO 8859-X character set (ISO 8859-1 for US English and Western Europe).

Thus, if the client locale character set, is Windows Code Page based (for example: Cp1252 for US English and Western Europe), and the server is UNIX based, then Windows Code Page should be used for encoding the annotations data before committing to the server. This is because; there is an inconsistency in characters mapping between Microsoft Windows Code Pages and the equivalent ISO 8859-X series. For instance, Code page 1252 is built on ISO 8859-1 but uses the range 0x80-0x9F for extra printable characters rather than the C1 control codes used in ISO8859-1.



For Annotations data, ISRA internally retrieves the IS character set and uses the equivalent Windows Code Pages for the following ISO encodings:

ISO Encoding	MS Windows counterpart
ISO8859_1	**Cp1252**
ISO8859_2	**Cp1250**
ISO8859_5	**Cp1251**
ISO8859_6	**Cp1256**
ISO8859_7	**Cp1253**
ISO8859_8	**Cp1255**
ISO8859_9	**Cp1254**
ISO8859_13	**Cp1257**

Note Specifying an incorrect code page may lead to inconsistency and/or corruption of Annotations data.

GMTEnabled flag

This parameter takes two values:

1. true

2. false

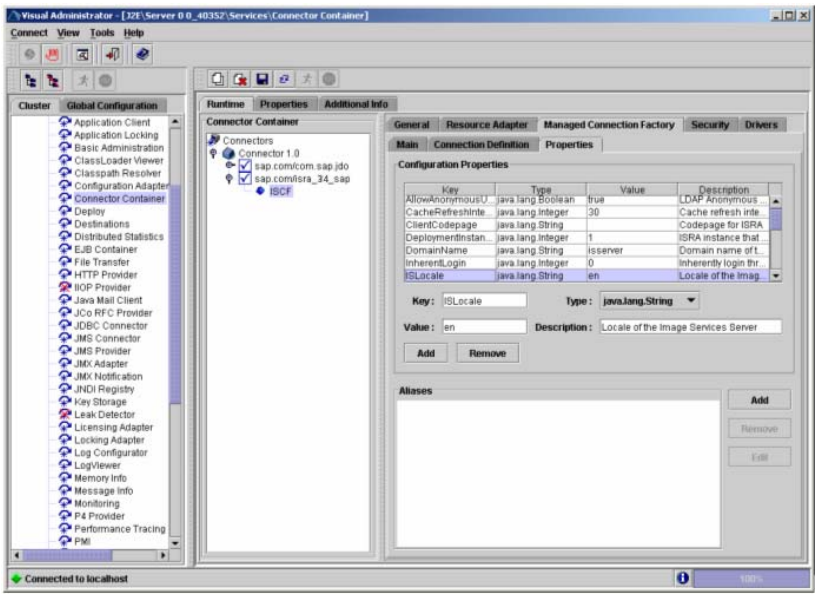
The default value of this parameter is false

Setting "GMTEnabled" to false: When the flag is set to false, it is assumed that the ISRA client application is not "GMT Enabled" i.e. client applications will not do any timezone conversion. ISRA returns the date committed on the IS to client applications after adjusting the difference between the Application Server timezone and the GMT Timezone. As a result, the dates displayed in applications will be in accordance with the dates committed on the IS.

Setting "GMTEnabled" to true: When the flag is set to true, it is assumed that the client application is "GMT Enabled" i.e. client applications will display the dates in GMT. In this case, ISRA returns the date committed on the IS in the GMT timezone, without any adjustment. Set this value to true only if you have made changes to your application after of an upgrade to ISRA 3.3 FP6 or ISRA 3.4 FP2.

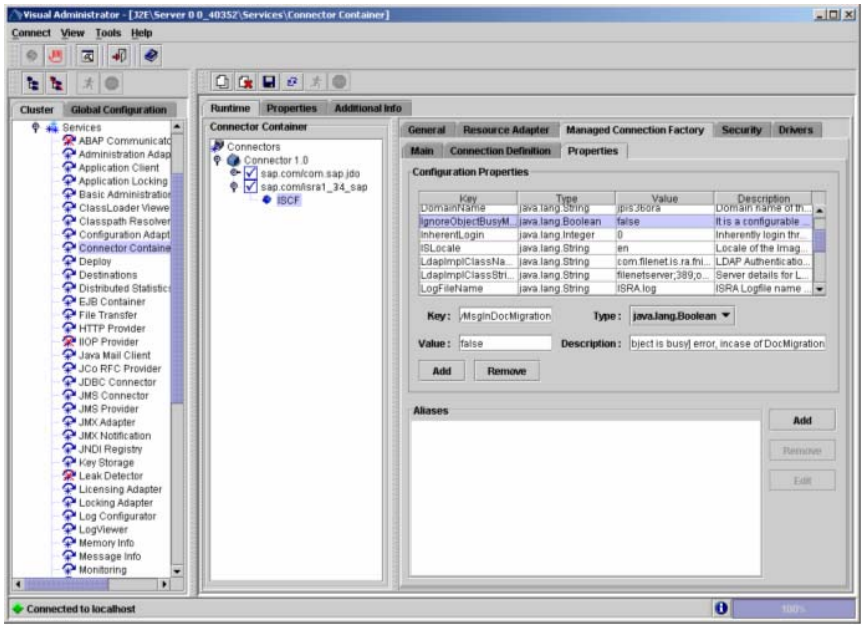
ISLocale

This is a String parameter which represents the ISRA Locale. The administrator can set the value of this configurable property as that of the IS locale. It is a lower-case two-letter code as defined by ISO-639. The default value of this parameter is "en" (English locale). The ResourceBundle used in ISRA will depend on the value set by the user for this property.



IgnoreObjectBusyMsgInDocMigration

This is a Boolean parameter which can be set to true to ignore the [77,0,11 The object is busy] error, incase of DocMigration. The default value for this parameter is false.



Configuring SAP NetWeaver WAS 6.40 Specific Parameters

The Connector Container Service in the J2EE Engine provides support for pooling EIS connections, which can be reused.

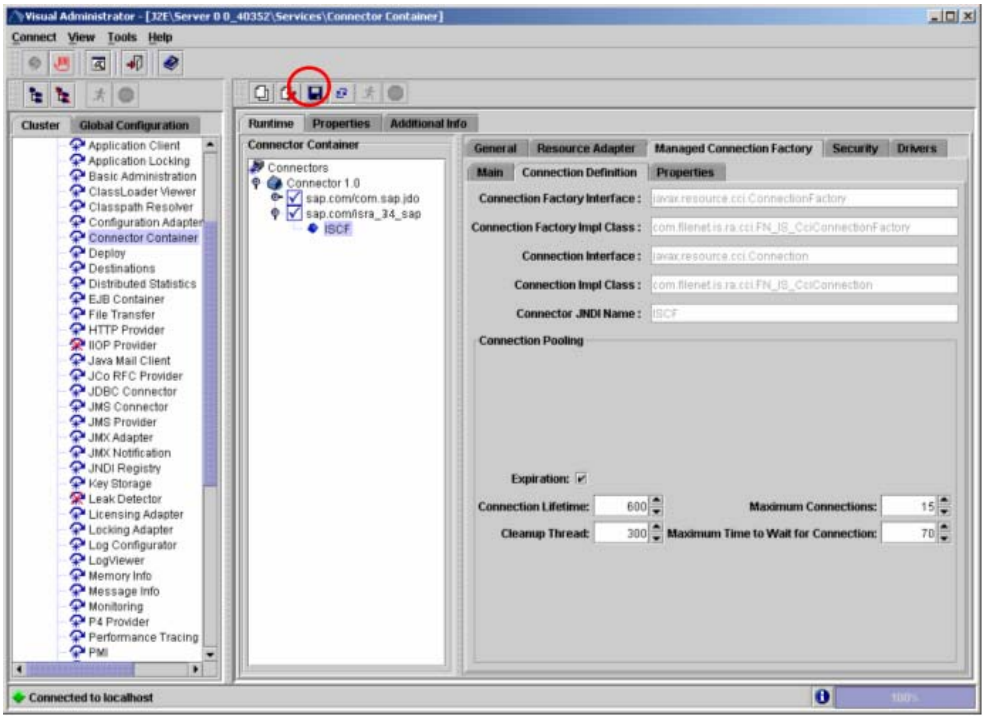
You can configure the connection pooling for each ManagedConnectionFactory at deployment time.

Once the configurable properties are set for ISRA, the Application Server-specific parameters, for connection pooling, need to be configured. In case of SAP NetWeaver server, the properties that need to be specified are:

- max-connections-number
- max-time-to-wait-connections
- connection-lifetime
- run-cleanup-thread

The steps to configure these properties are:

1. In the SAP NetWeaver Visual Administrator Console, navigate to the **Connection Definition** tab, under **Managed Connection Factory** tab in **ISCF**. Refer to Configuring Deployed ISRA section for details. The following screen appears.



2. Select the **Expiration** check box. The **Connection Lifetime**, and **Cleanup Threat** fields get enabled. Enter their values, and also in the fields: **Maximum Connections**, and **Maximum Time to Wait for Connection**. Click **Save**. A confirmation message appears.

3. Click **OK**.

The SAP NetWeaver connection pooling specific parameters gets configured.

A description of each attribute is given below:

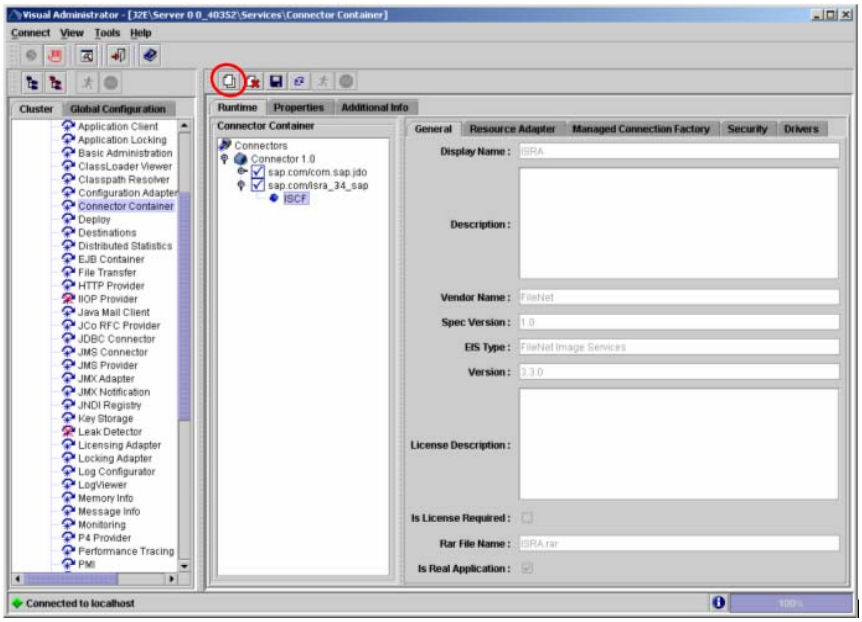
- **max-connections-number** – this defines the maximum number of connection instances that can be stored in the connection pool
- **max-time-to-wait-connections** – using this parameter you can define how many seconds the system waits for a connection to be released if there are no free connections and the maximum number of pooled connections is already achieved. The system throws an exception after this interval.
- **connection-lifetime** – use this parameter to define how many seconds a connection may stay in pool before it is closed
- **run-cleanup-thread** – using this parameter you can schedule a thread that periodically cleans up unused connection objects at a regular interval that you set in seconds.

Configuring Multiple IS Servers with ISRA

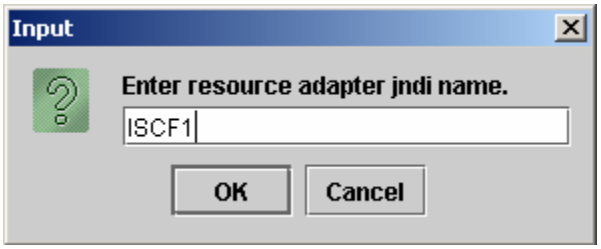
To configure ISRA for accessing multiple IS servers, create a Connection Factory for each IS that user wants to connect.

To create a new connection factory, perform the following steps:

1. In the SAP NetWeaver Administrative Console, navigate to **ISCF**. Refer to Configuring Deployed ISRA section and follow through till step 5 for details. The following screen appears.

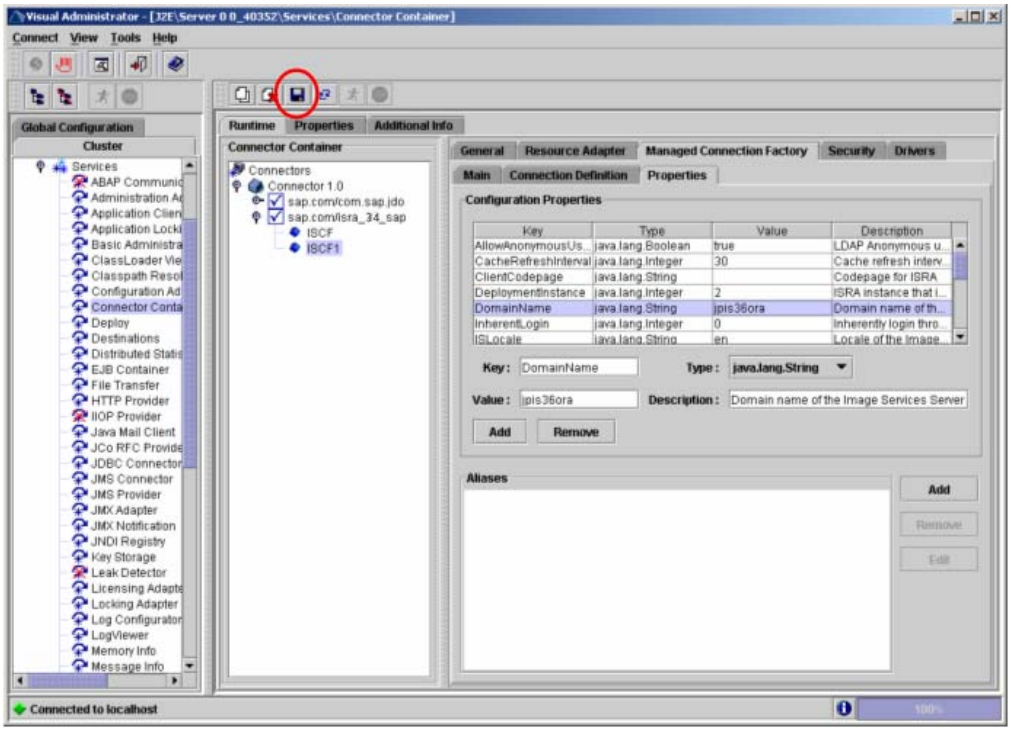


2. Click on the **Clone** button. The following dialog box appears.



3. Enter a **JNDI name**, and click **OK**. The following confirmation message appears.

4. Click **OK**. The following screen appears.



5. A clone of the **ISCF** connection factory is created. Go to **Properties** tab under **Managed Connection Factory** tab. Change the values in the desired properties and click **Add**.

Note Values against the **DomainName**, and **DeploymentInstance** must be changed. The user may also change the value in **OrganizationName**.

6. After changing the values against all the properties, click **Save**. The following confirmation message appears.

7. Click **OK**.

A new connection factory is created.

3

Configuring and Deploying ISRA Console and Sample Application

ISRA Console

The LoadISRA utility from ISRA 3.4.0 has now been replaced with the ISRA Console (in ISRA 3.4 fixpack 1 and above). This ISRA console has been developed to show the ra.xml properties in a well formatted table and also features buttons to enable/disable/edit logging levels dynamically.

The dynamic update of logging allows the user to enable and change logging levels while the ISRA is running and without needing to restart the appserver. The console also features links to launch Sample Application and to view JVM statistics.

This console is available as a Web Module (ISRAConsole.war) within ISRAConsole.ear and gets deployed automatically during the deployment of ISRAConsole.ear

Configuring Sample Application

The ISRA console and Sample Application are packaged within a single Enterprise Application Archive File (**ISRAConsole.ear**).

ISRAConsole.ear consists of:

- Two Web modules:
    - ISRASampleWEB.war (ISRA Sample Application)
    - ISRAConsole.war (ISRA Console)
- Deployment Descriptor (application.xml)

This chapter illustrates the deployment and configuration of the ISRA Console and Sample Application on SAP WAS 6.40 Application Server.

Note	ISRA product media comes with an IBM FileNet Image Viewer, which can be used to display the TIFF, JPEG, BMP, and other supported file formats on a Java-enabled browser. This Sample Application is intended solely for illustrative purposes and it should not be expected to perform useful work, or be used for production deployment. This Sample Application is to be used strictly as reference material.

It is assumed that ISRA is deployed and configured for the target IS.

In ISRA 3.4 fixpack 1, a new properties file "jndiISRA.properties" has been introduced and it gets created in Application Server home directory. The JNDI names of connection factories mentioned in this properties file, which will be used by Sample application to display on the login page. Two JNDI names "ISCF" and "ISCF1" are mentioned in the file by default. Additional library names can be included by providing comma separated entries. The property file is mandatory and it should contain the same names as the JNDI Binding Paths specified for the configured ISRA ConnectionFactories.

For configuring Sample application, certain properties need to be updated in the web.xml of the **ISRASampleWEB.war.**

Follow the below steps for extracting **web.xml** from **ISRASampleWEB.war**.

1. Extract ISRASampleWEB.war from ISRAConsole.ear.
2. Extract web.xml from ISRASampleWEB.war.
3. Add the following `<resource-ref>` tag after `</welcome-file-list>` tag in **web.xml** file for the web application:

```
<resource-ref>
<description>ISRA</description>
<res-ref-name>ISCF</res-ref-name>
<res-type>javax.resource.cci.ConnectionFactory</res-type>
  <res-auth>Application</res-auth>
      </resource-ref>
```

Note With every new connection factory created, the above <resource-ref> tag has to be added, with the appropriate resource reference name. For example: when JNDI name of connection factory is ISCF, then <res-ref-name> is ISCF, and when JNDI name of connection factory is ISCF1, then <res-ref-name> is ISCF1.

This is done only in case of configuring multiple instances of IS servers. For details on the same, refer to Configuring Multiple IS Servers with ISRA section.

4. Create a file **web-j2ee-engine.xml** file for the web application with the following content,

```
<?xml version='1.0' encoding='UTF-8'?>
<!DOCTYPE web-j2ee-engine SYSTEM 'web-j2ee-engine.dtd'>
<web-j2ee-engine/>
```

5. Add **web-j2ee-engine.xml** file in the ISRASampleWEB.war file (inside /WEB-INF) of ISRAConsole.ear.
6. To enable extended annotation functionality modify the following parameters in **web.xml**:
   a. Change env-entry-value for "DOCCLASSNAME" to the document class configured in the IS for digital signatures.

```
<env-entry-value>digDocClass</env-entry-value>
```

   b. Change env-entry-value for "MAXROWS" to the number of records to be fetched from the given document class.

```
<env-entry-value>200</env-entry-value>
```

7. To enable Remote Printing functionality modify the following parameters in **web.xml**:

a. Change env-entry-value for "USEPRINTVIEWOPTION" to either Yes or No. This value will determine whether to honor the print/view preference set in the **web.xml** or to take the value returned by ViewOne. Default value is No.

```
<env-entry-value>No</env-entry-value>
```

b. Change env-entry-value for "PRINTVIEWOPTION" to either View Only =1, Print Only =2, Print/View =3. This value indicates the value of Print/View. The default value is 3.

```
<env-entry-value>3</env-entry-value>
```

Note If the PRINTVIEWOPTION is set to 3 (default) then the sticky note would be saved as a normal sticky note. If PRINTVIEWOPTION value is specified as 1 or 2 then the annotations will be saved as an extended annotation (***Extended annotations*** *are non-standard annotations which are saved with a class name parameter (F_CLASSNAME) of "Proprietary", a class id property (CLASS_ID) of {A91E5DF2-6B7B-11D1-B6D7-00609705F027} and a subclass name property (F_SUBCLASS) that describes the annotation*).

The value of PRINTVIEWOPTION would be honored for each sticky note individually, and not for all the sticky notes on a document as a whole.

Thus, the setting for PRINTVIEWOPTION would be processed for either a new annotation being added or an existing annotation being modified.

8. Update **web.xml** in **ISRASampleWEB.war**.
9. Update **ISRASampleWEB.war** in **ISRAConsole.ear**.

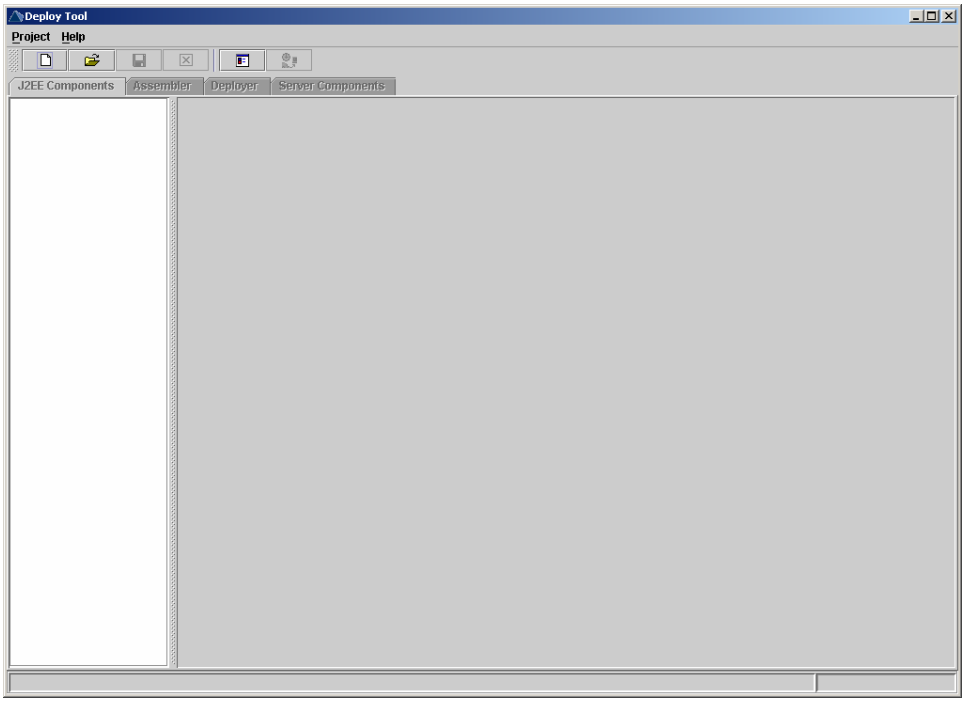
After the above configuration, deploy the ISRAConsole.ear into SAP NetWeaver WAS 6.40.

Deploying ISRA Console and Sample Application

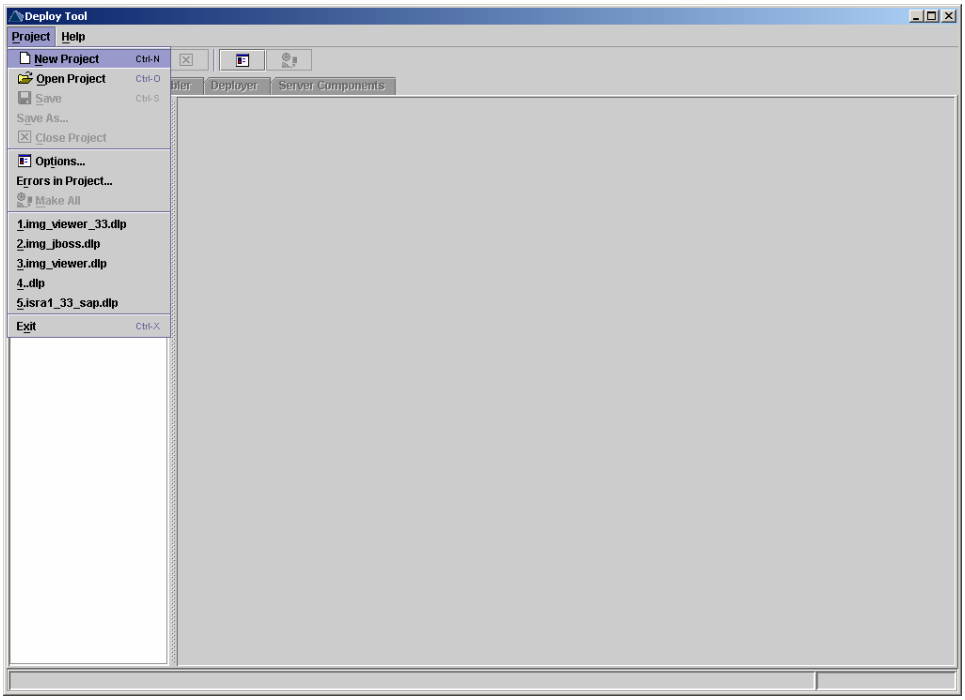
This section describes how to deploy the ISRA Console and Sample Application on a SAP WAS 6.40 Server to access ISRA in a managed environment. It is assumed that ISRA is deployed and configured for the target IS.

To deploy the ISRA Console and Sample Application, perform the following steps:

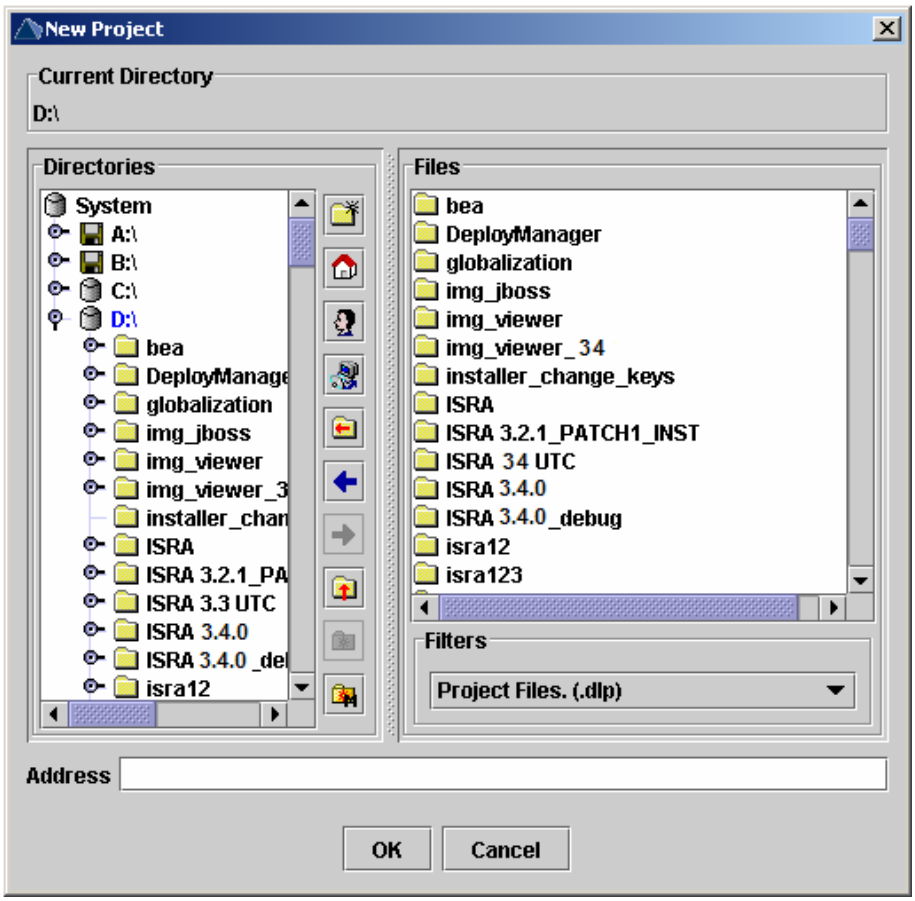
1. Run the **DeployTool.bat** file from the following location `\\usr\<sap was instance>\J2E\JC00\j2ee\deploying` to start the deploying tool of SAP WAS 6.40. The following screen appears.



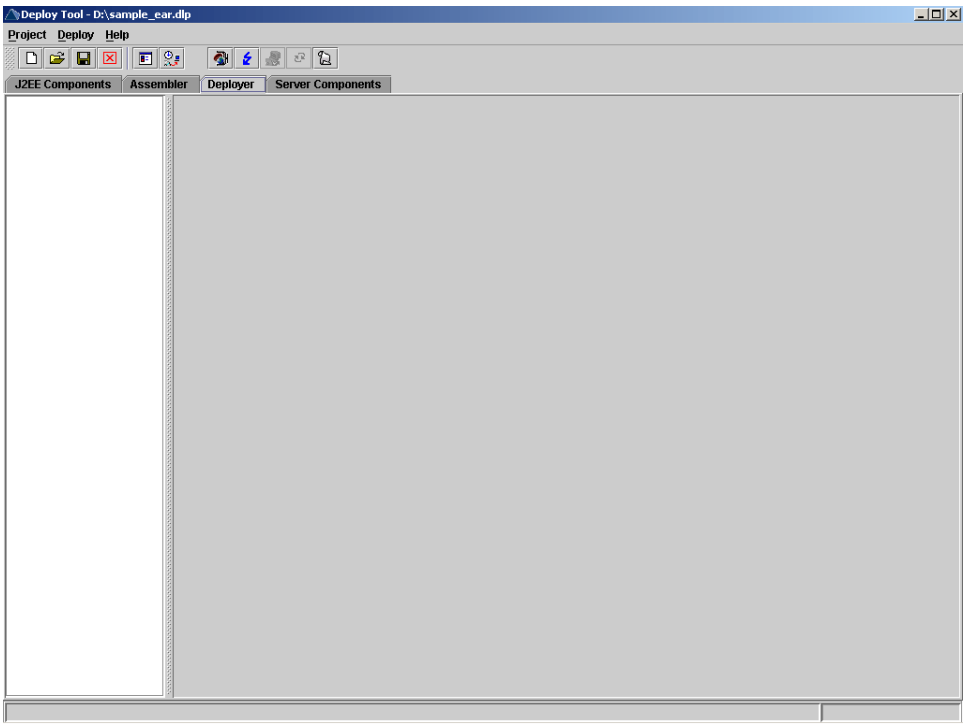
2. Click **Project > New Project**.



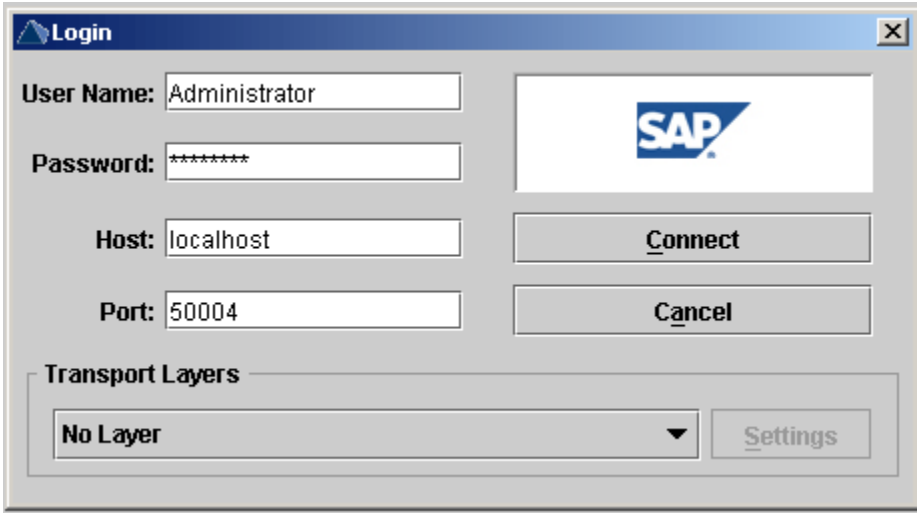
3. The following screen appears.



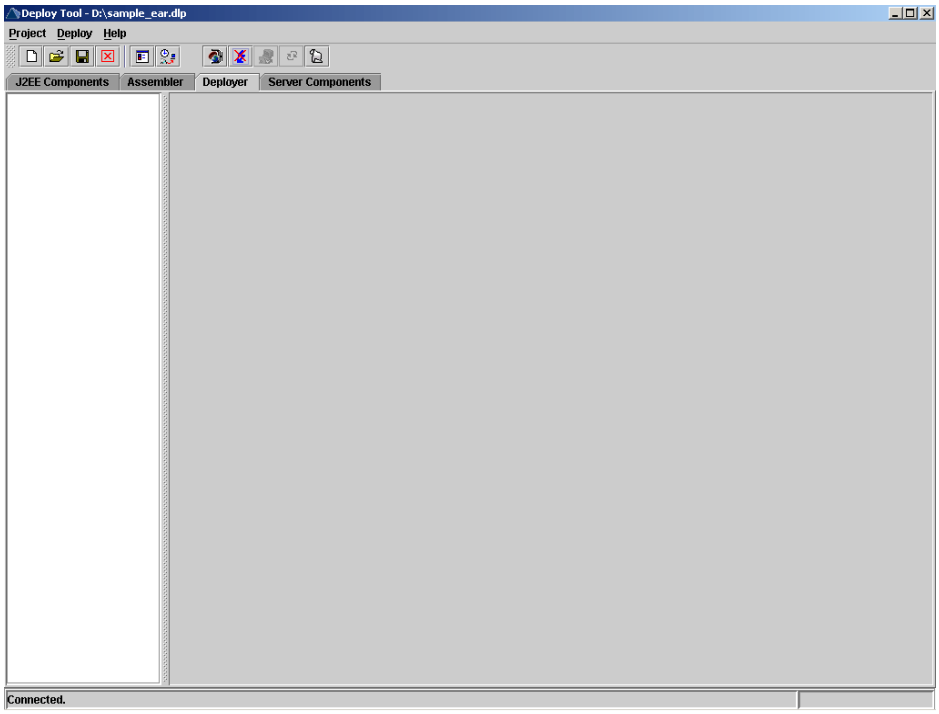
4. Select the desired location, and enter the name of the folder to be created in the **Address** field, for example **sample_ear**. Then click **OK**.



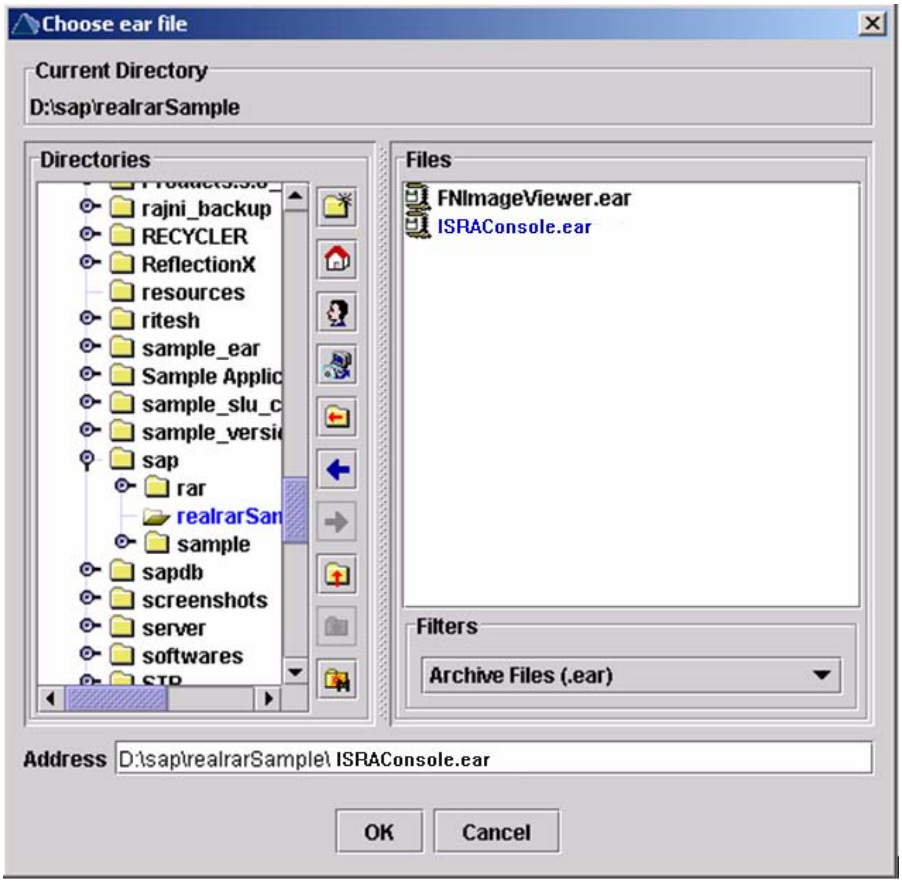
5. Click on the **Deployer** tab and then click the **Connect** button. The following screen appears.



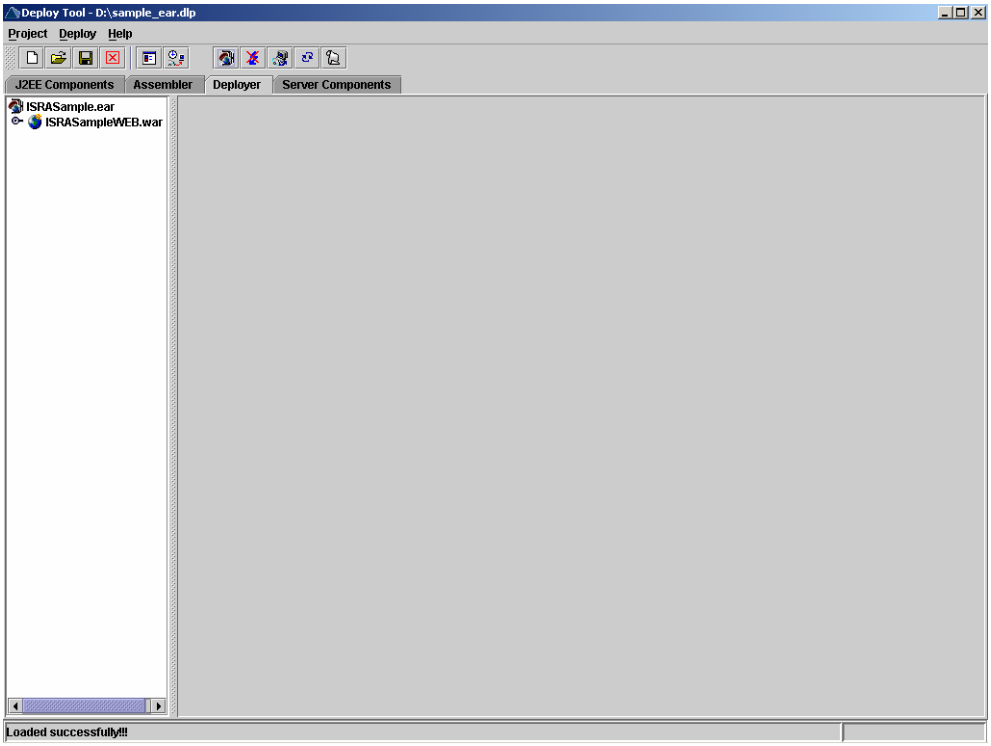
6. Enter the **Password**, and click **Connect**. The following screen appears.



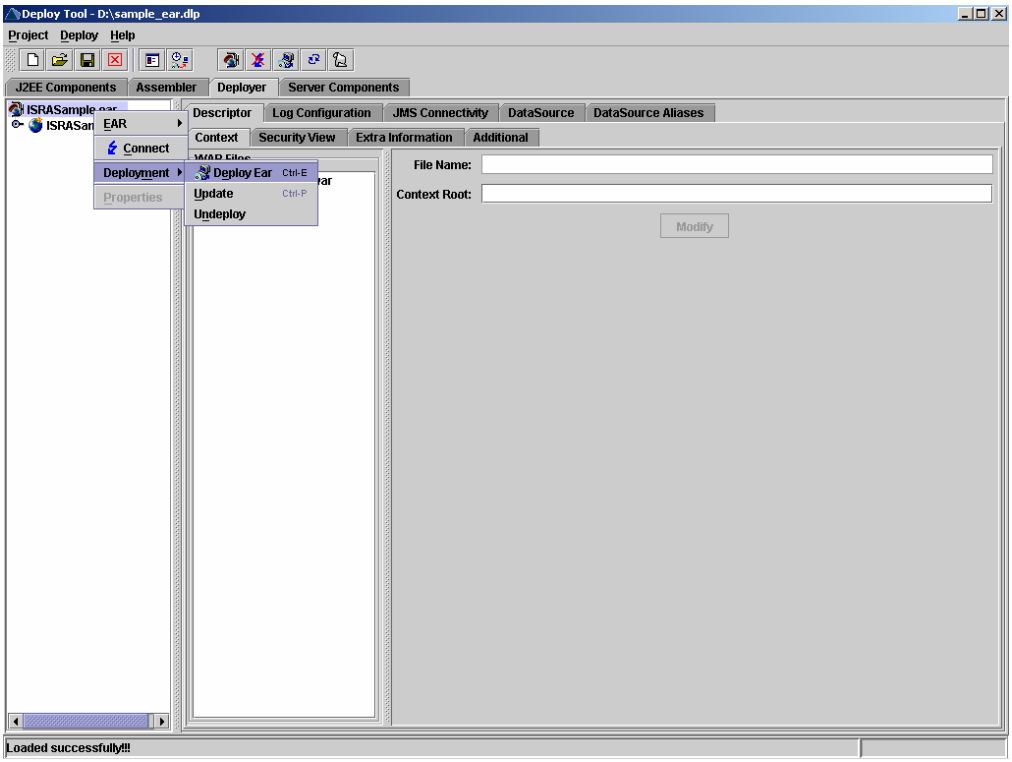
7. Click on the **Load Ear** button. The following screen appears.



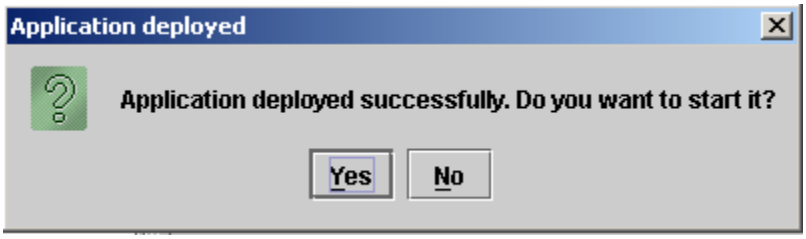
8. Navigate to the updated **ISRAConsole.ear** file. Refer to Configuring Sample Application section. Then click **OK**.



9. Right-click on **ISRAConsole.ear** file. In the context menu navigate to **Deployment > Deploy Ear**.



10. Click **Yes**.



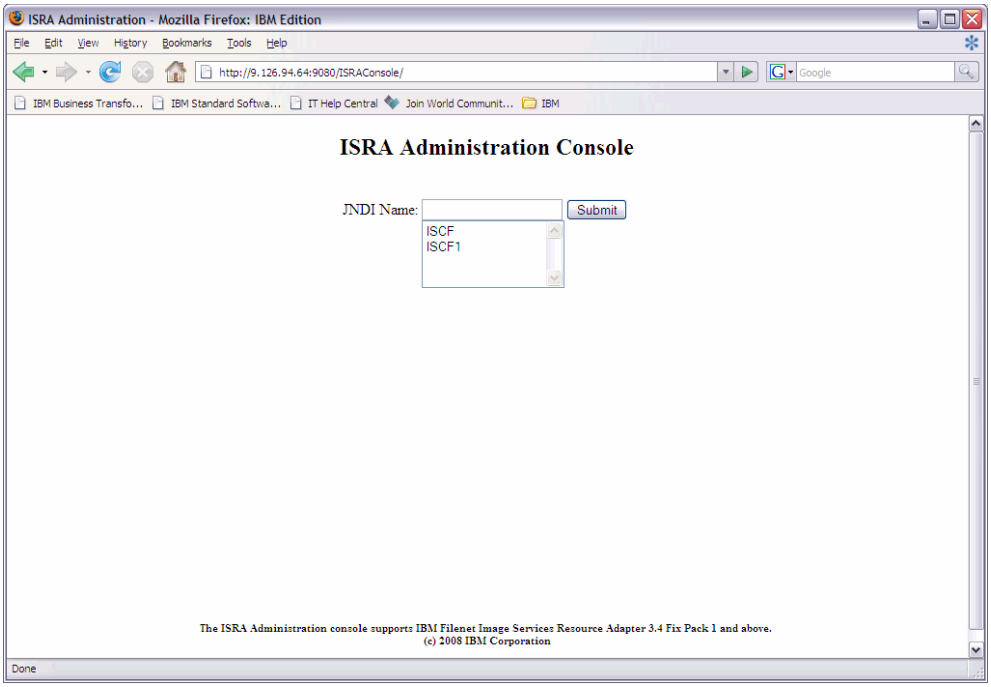
ISRA Console and Sample Application - deployed. The message “Application Started Successfully” is displayed in the status bar.

Using the ISRA Console

To access the ISRA Console, follow the steps below:

1. Go to the location where the application is available (http://<AppServerName>:<AppServerPort>/<ApplicationContextRoot>)ApplicationContextRoot is **ISRAConsole.**

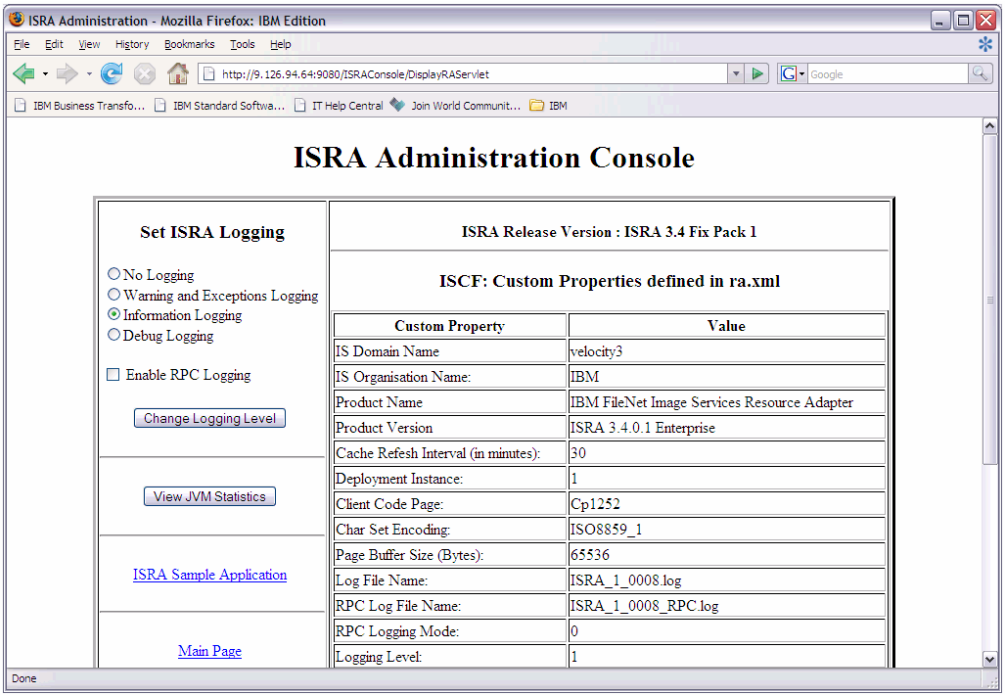
   For example : http://9.126.94.39:9088/ISRAConsole/



2. Enter the JNDI name of the library and click **Submit**.

A page showing the current values configured in the ra.xml is shown along with controls to edit the ISRA logging levels.

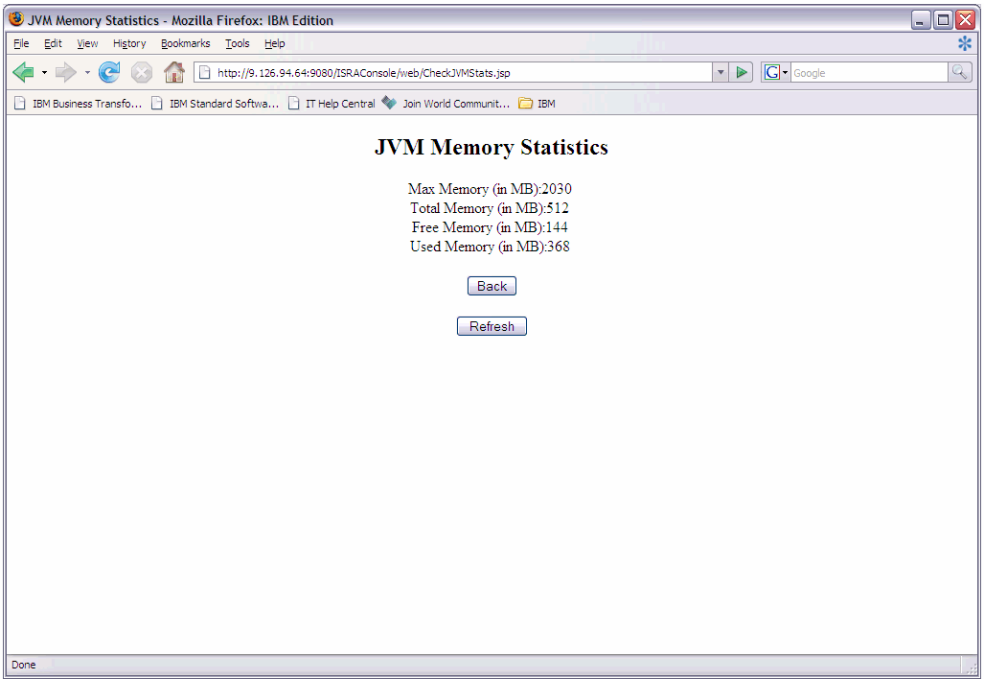
A link has been provided on the page, to access the ISRA Sample Application.



Changes to the logging level settings are applied to ISRA with immediate effect. The changes to logging levels are updated in the properties displayed on the screen.

The changes are valid till the application server is recycled. When the application server is restarted the log level settings specified in the ra.xml are used.

3. The JVM statistics can be used to study the memory usage in the Application Server JVM.



Configuring IBM FileNet Image Viewer

Before deploying FNImageViewer, perform the following steps:

1. Extract **FNImageViewer.war** from **FNImageViewer.ear**.
2. Extract **web.xml** from **FNImageViewer.war**.
3. Change the file **web.xml** file for the web application with the following content,

```
<?xml version="1.0" ?>
<!DOCTYPE web-app PUBLIC "-//Sun Microsystems,
Inc.//DTD Web Application 2.3//EN"
"http://java.sun.com/j2ee/dtds/web-app_2_2.dtd">
<web-app id="WebApp_1">
 </web-app>
```

4. Update **web.xml** in **FNImageViewer.war**.
5. Update **FNImageViewer.war** in **FNImageViewer.ear**.

After the above configuration, deploy the FNImageViewer.ear into SAP NetWeaver WAS 6.40.

Deploying IBM FileNet Image Viewer

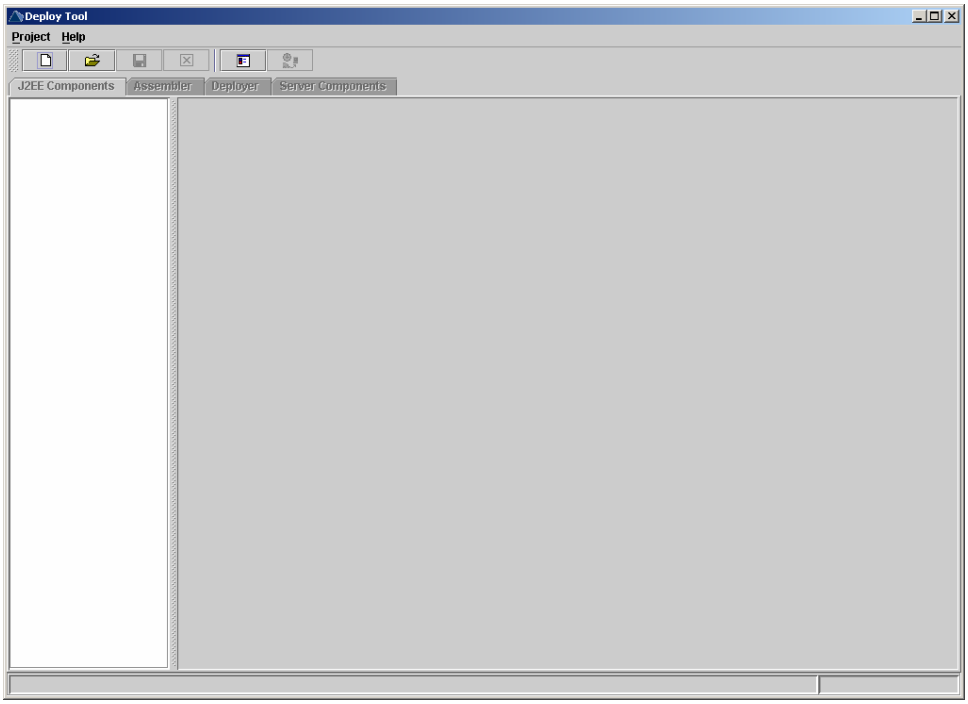
This section describes how to deploy the FNImageViewer on SAP WAS 6.40 Application Server in a managed environment. IBM FileNet Image Viewer application is used by the ISRA Sample Application to display documents of

specific mime types (TIFF, JPEG and BMP).It is assumed that ISRA is deployed and configured for the target IS.Skip this section, if you do not want the IBM FileNet Image Viewer configured with the ISRA Sample application.

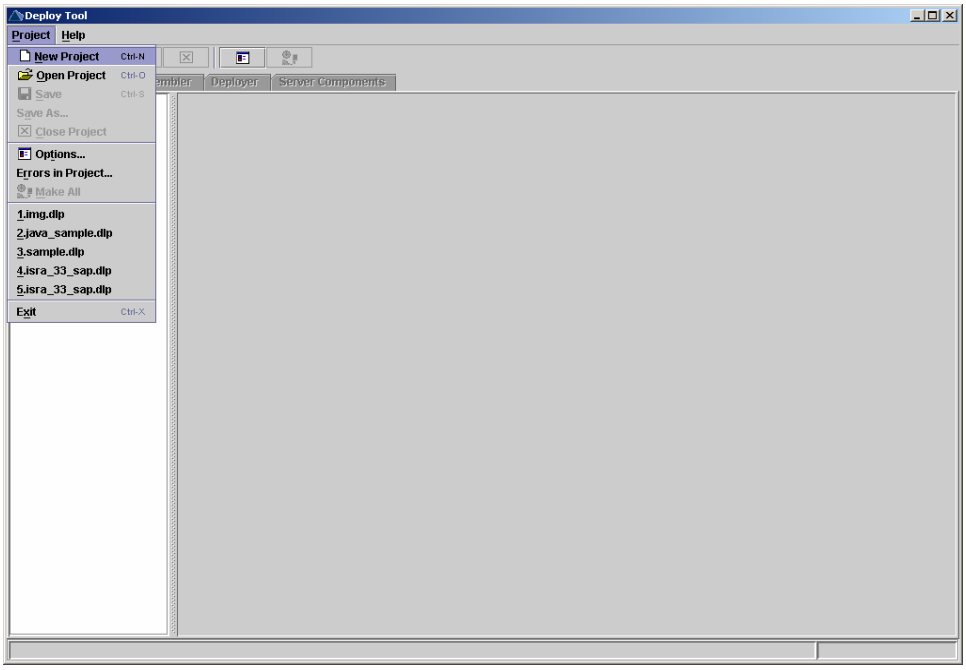
Note Before deploying **FNImageViewer.ear** on SAP WAS6.40, make an entry "**ViewOne**" in <**welcome-file**> tag of web.xml file present in FNImageViewer.war extracted from FNImageViewer.ear.

To deploy IBM FileNet Image Viewer, perform the following steps:

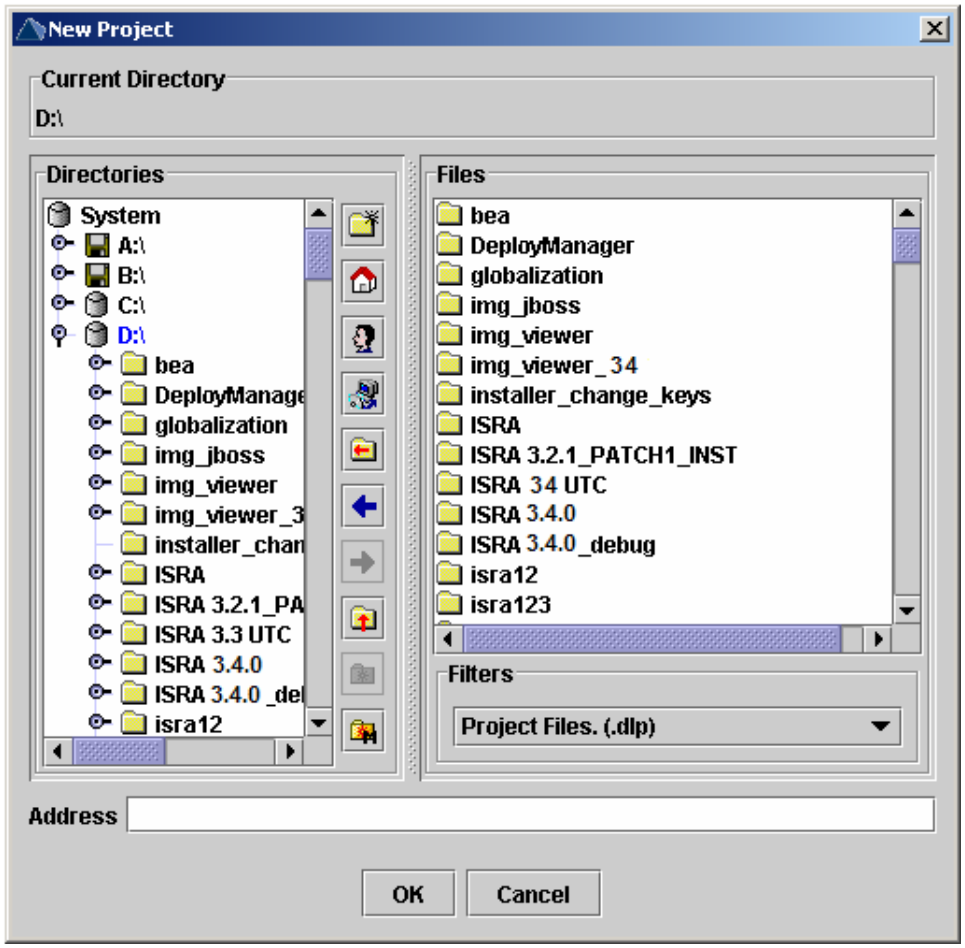
1. Run the **DeployTool.bat** file from the following location `\\usr\<sap was instance>\J2E\JC00\j2ee\deploying` to start the deploying tool of SAP WAS 6.40. The following screen appears.



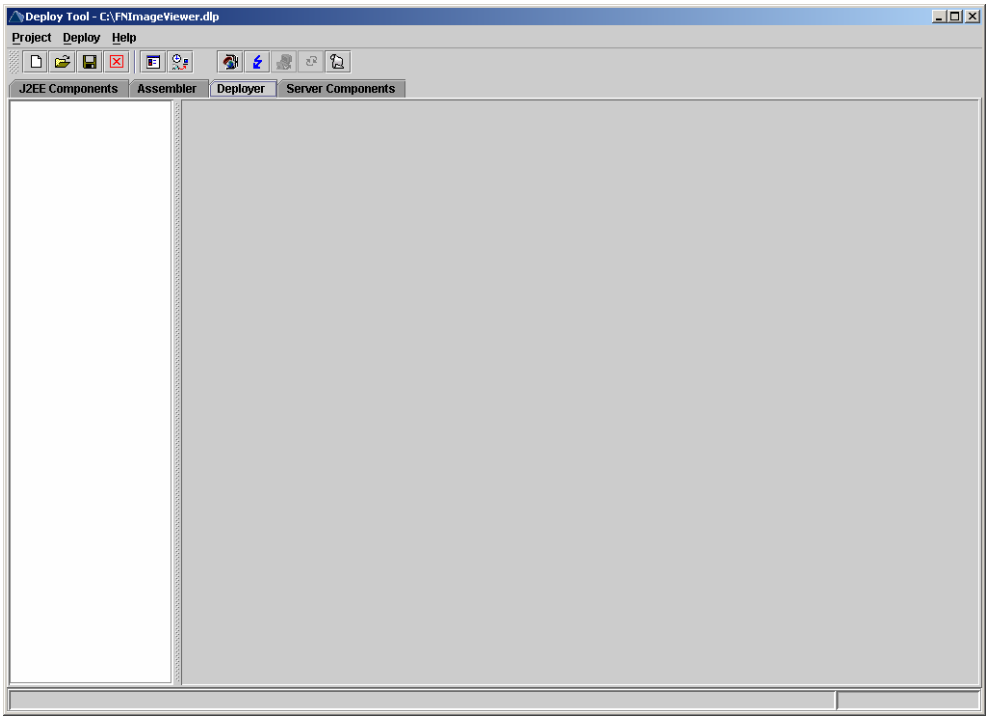
2. Click **Project > New Project**.



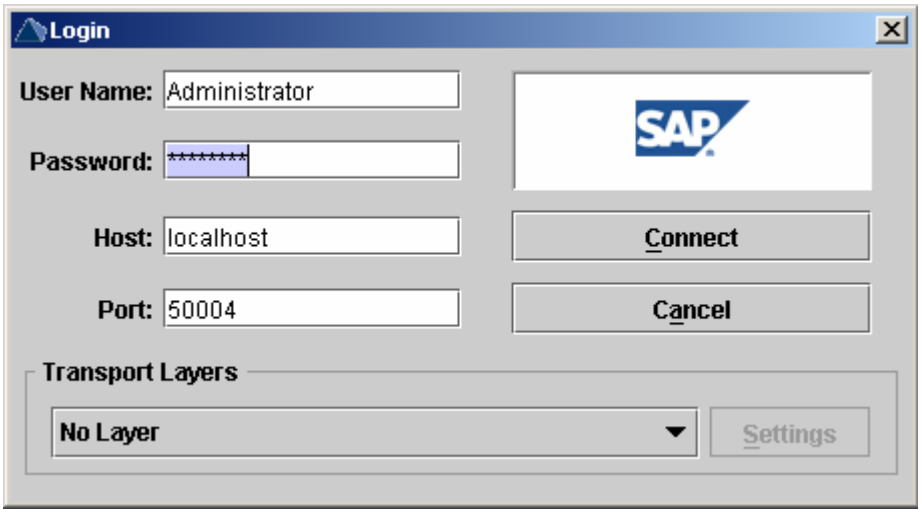
3. The following screen appears.



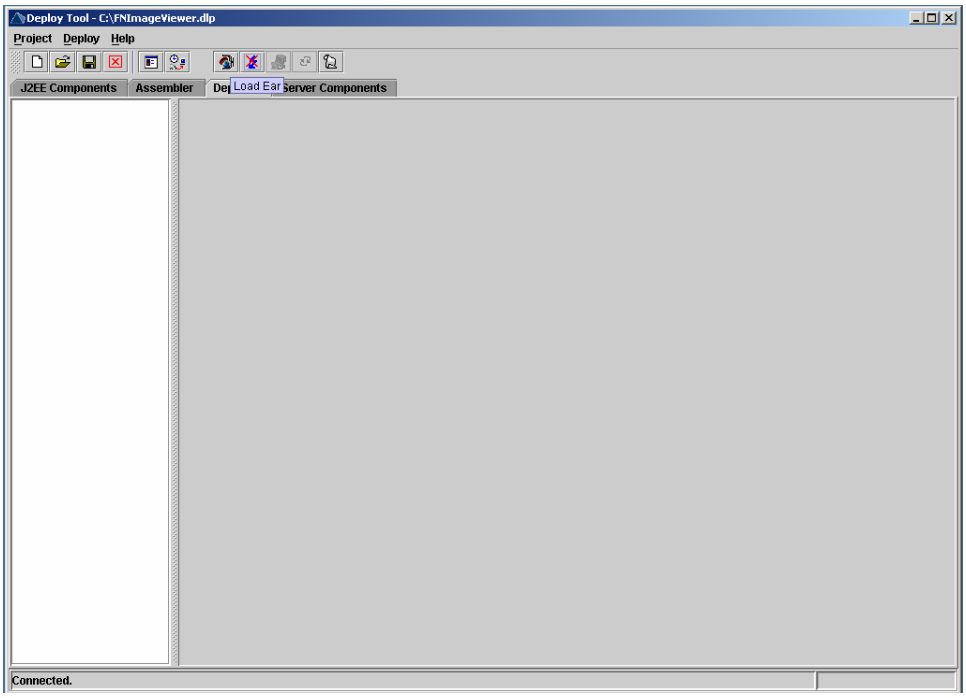
4. Select the desired location, and enter the name of the folder to be created in the **Address** field, for example **FNImageViewer**. Then click **OK**.



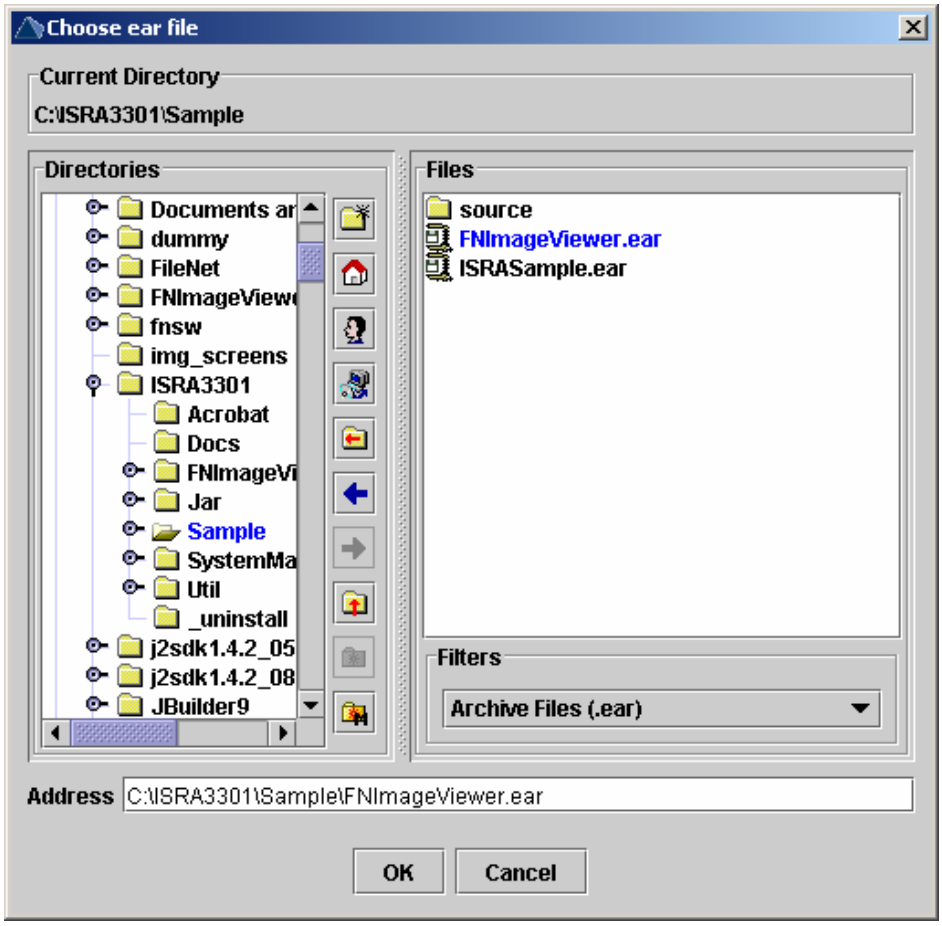
5. Click on the **Deployer** tab and then click the **Connect** button. The following screen appears.



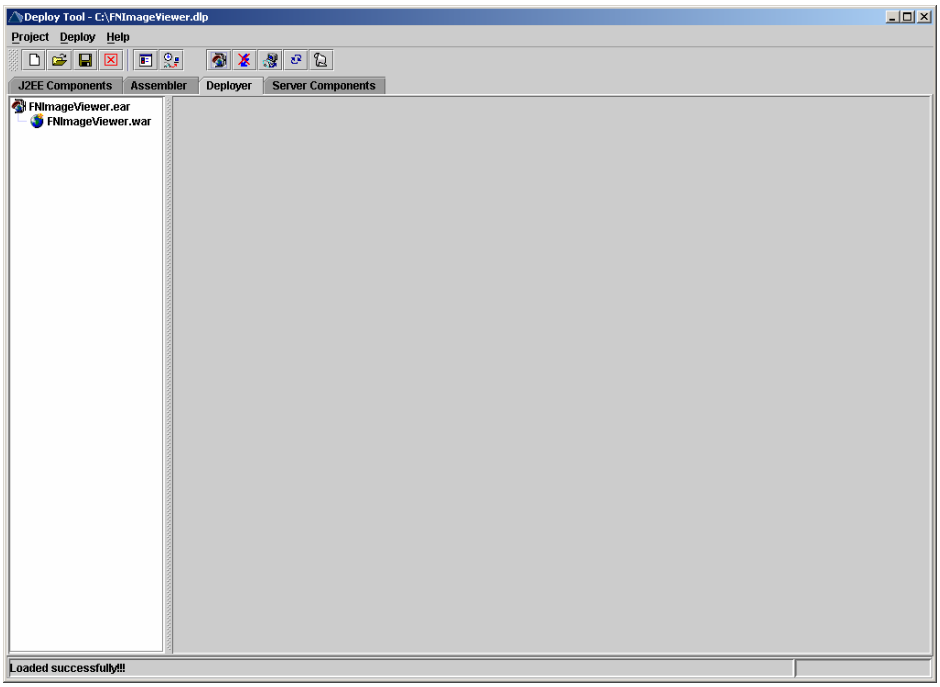
6. Enter the **Password**, and click **Connect**. The following screen appears.



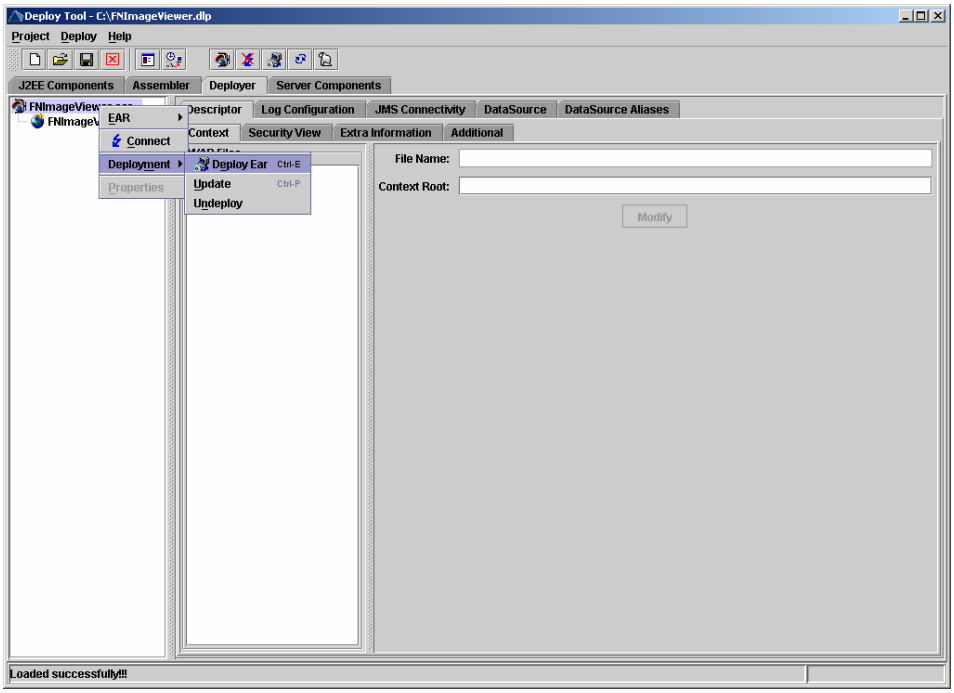
7. Click on the **Load Ear** button. The following screen appears.



8. Navigate to the updated **FNImageViewer.ear** file. Refer to Configuring IBM FileNet Image Viewer section. Then click **OK**.



9. Right-click on **FNImageViewer.ear** file. In the context menu navigate to **Deployment > Deploy Ear.**



10. Click **Yes**.

FNImageViewer is deployed. The message “Application Started Successfully” is displayed in the status bar.

IBM FileNet Image Viewer Quick Start Feature

The Quick Start feature provides a mechanism for initializing a Web browser, Java, and Image Viewer session. The background task required to initialize an Image Viewer session is done at the time when the Web browser is initialized, prior to the time when Image Viewer is actually required. This reduces the startup time of Image Viewer. This feature is supported on various Operating Systems, such as Microsoft Windows 98, NT, 2000 Professional, and XP. The only Web browser supported for this feature is Internet Explorer. The Quick Start feature is not enabled by default; user needs to manually enable it.

Enabling Quick Start Feature

To enable quick start feature:

1. Extract FNImageViewer.ear from the patch.
2. Check the availability of "quickstart.htm" file in the FNImageViewer.war extracted from FNImageViewer.ear
3. Extract ISRAConsole.ear from the patch.
4. Extract ISRASampleWEB.war file from ISRAConsole.ear.
5. Extract 'DisplayDocument.jsp' file from ISRASampleWEB.war.
6. Add the highlighted tag to the file as shown in the code segment below:

```
<APPLET CODEBASE = "/FNImageViewer/FNJavaV1Files" ARCHIVE
="ji.jar"
CODE = "ji.applet.jiApplet.class" NAME = " viewONE" WIDTH =
"100%"
HEIGHT = "97%" HSPACE = 0 VSPACE = 0 ALIGN = middle
MAYSCRIPT="true">

-- -- --

<%if(RAVersion2.equalsIgnoreCase("Enterprise")){%>

-- -- --

<param name="UserId" value="<%=userId%>">
<param name="quickstartURL" value="quickstart.htm">
<%}/*End of if condition where
RAVersion2.equalsIgnoreCase("Enterprise")*/%>
</Applet>
```

7. Save and close the file.
8. Bundle the new file into ISRASampleWEB.war
9. Bundle the WAR file into ISRAConsole.ear.
10. Undeploy the old ISRAConsole.ear
11. Deploy the new ISRAConsole.ear.
12. Open a document in IBM FileNet Image Viewer.
13. Right-click the document to open the context menu.
14. From the context menu, click **Preferences > QuickStart** to enable the Quick Start feature. A 'tick' icon appears on the left-hand side of the Quick Start menu indicating that the feature is enabled.

Enabling the Quick Start feature will add an icon within the System tray (bottom right of the Windows Desktop) and a menu item “IBM FileNet JavaView QuickStart for Internet Explorer” under Start > Programs > Startup menu. After enabling Quick Start, if the machine is rebooted, the Quick Start feature remains enabled. Disabling the Quick Start feature will remove the Quick Start icon from the System tray and the menu item “IBM FileNet JavaView QuickStart for Internet Explorer” from the Start > Programs > Startup menu.

Known Issues in the Quick Start Feature

Following are the known issues in IBM FileNet Image Viewer:

- Web session will not end until Quick Start feature is disabled or the user explicitly logs out of the session with the Web server. If the Quick Start feature is enabled, closing the browser window(s) will not terminate the session with the Web server.
- If Quick Start is enabled and Internet Explorer is not the default browser, then on machine re-login or reboot, a message will display asking whether to make Internet Explorer the default browser. To avoid the message:

    1. Open a browser window.
    2. Select **Tools** > Internet Options.
    3. Click **Programs** tab and deselect the check box corresponding to "Internet Explorer should check to see whether it is the default browser".
    4. Click **Apply**.
    5. Click **OK**.

- If Always button is not selected on the security dialog box of the security certificate associated with the Image Viewer, then on machine re-login or reboot, a security dialog box is displayed.
- QuickStart feature is not available in Image Viewer if web server is accessed using IP address instead of host name in the URL.

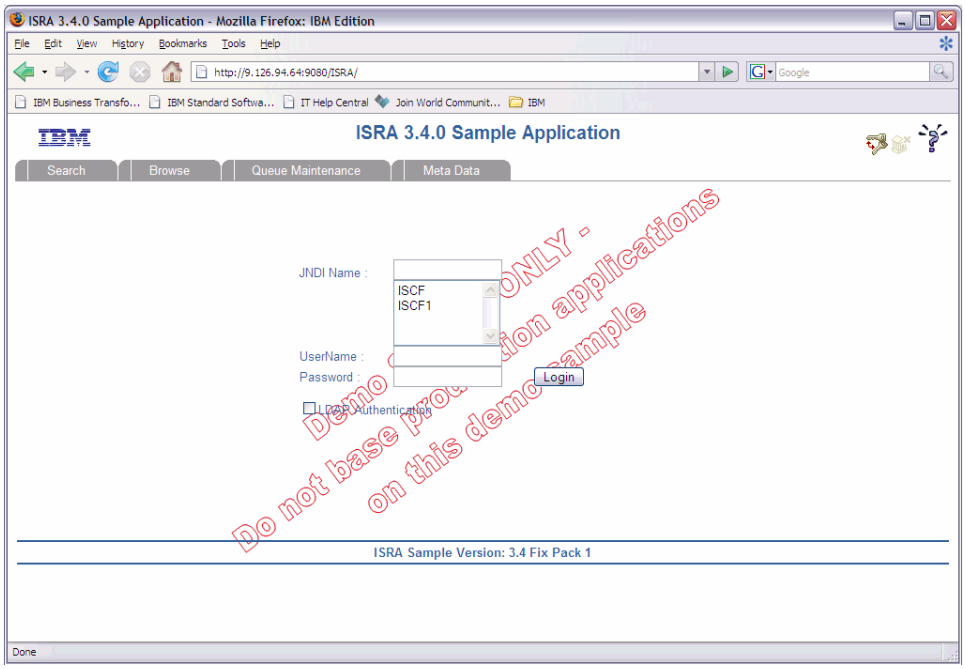
Testing Sample Application

After the ISRA Sample Application is started, the steps to verify the deployment and access the ISRA Sample Application are:

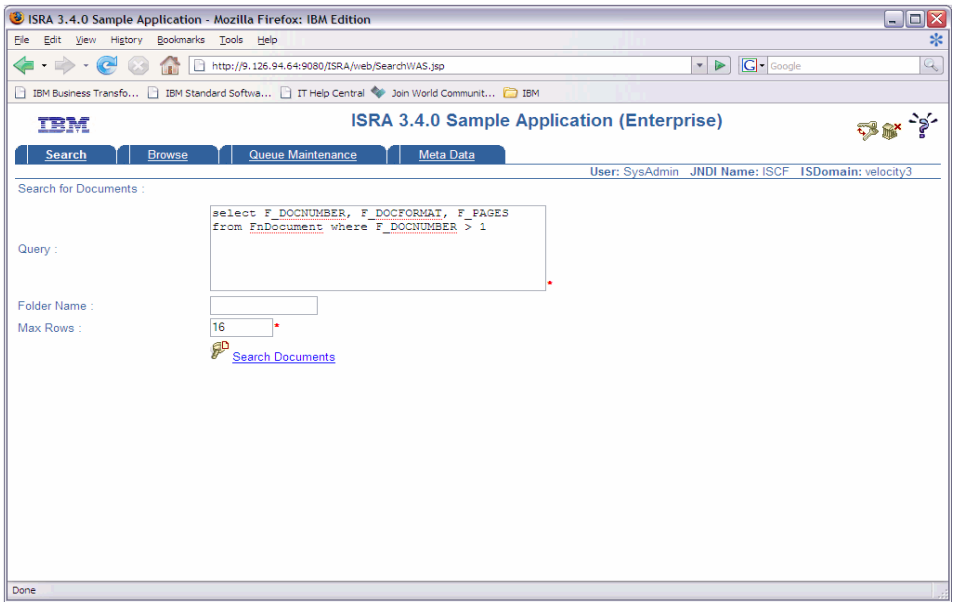
1. Open a Web browser and enter the URL `http://<server:port>/context_root`

```
For example: http://9.126.94.39:9088/ISRA/
```

The Web application context_root is case sensitive. On a SAP WAS 6.40 Server, the default port number is **50000**. The default context_root of the Sample Application is ISRA.



2. Enter valid **Username** and **Password** for the configured IS (check configured ConnectionFactory for IS details) and click **Logon**.



3. Click **Help (?)** icon, on the Sample Application page, for details on the interaction parameters and options.

4

LDAP Configuration

In addition to direct IS logging, ISRA 3.4.0 also supports LDAP Authentication by third party Servers.

It is necessary to map users present on the LDAP Server to the IS before using LDAP Authentication.

Note The installation of LDAP Server and creation of users on the LDAP machine are out of the scope of this document.

IBM FileNet provides two utilities - ldap_export and ldap_import, to map existing users on the LDAP Server to the IS. These utilities are part of the IS package and must be executed on the machines running the LDAP Server and the IS.

The ldap_export utility is used to export usernames on the LDAP Server to an xml file. While, the ldap_import utility imports usernames that have been mapped to the xml file and creates corresponding users on the IS.

It is mandatory that the ldap_import algorithm and the xml file be present on the same machines, where IS exists. The ldap_import algorithm uses a hashing algorithm to generate user passwords for the IS.

Mapping Existing LDAP Server Users to IS

To configure user IDs in an IBM FileNet IS library:

1. Create user entries on the LDAP server. The user attribute “uid” will be used to create a user on IS. The remaining attributes (including “password”) can be assigned any value.
2. Use the LDAP_EXP.exe utility to export the user entries created into an XML file.
3. LDAP_EXP program has the following parameters options:

Option	Description
s <server>	LDAP server name or IP address, required value.
p <port>	LDAP port number, optional value, 389 is default.
d <binddn>	LDAP administrator bind domain name (DN), required value.
w <bindpw>	LDAP administrator bind password, required value.
t <ldap server type>	Required value for server type: msft – Microsoft Active Directory sun – Sun One Directory (iPlanet) nov – Novell eDirectory(NDS).

Option	Description
	ibm – IBM Directory.
b <basedn>	LDAP Base DN, optional value.
g <grouplist filename>	Group list file for input, optional value.
o <XML output filename>	XML output filename, optional value.
l <log filename>	Log Filename to use, optional value.
I	Check for special characters on <id> tags only
E	Remove all escape characters – '\'.
k	Use paged results. Windows to AD only.
Z	Use secure socket connection.
x <grouplist filename>	Group list file name for output, optional value.
v	Verbose log output.
c1 <user object class>	Class type for User, default is 'person'.
c2 <group object class>	Class type for Group, default is 'groupofuniquenames'.
a1 <user attribute>	Attribute to be used for user; default is 'dn'.
a2 <group attribute>	Attribute to be used for group; default is 'dn'
a3 <member attribute>	Attribute to be used for member; default is 'uniqueMember'

Note User may use /?, -?, /h or -h to generate help.

Example command lines:

- **Sun One directory(iPlanet) server:**

```
ldap_exp -s SunSrvr1 -d "cn=Directory Manager" -w
":/,.++=" -t sun -b "dc=iPlanet, dc=com"
```

- **Microsoft Active Directory(AD) server:**

```
ldap_exp -s Win2KSrvr1 -d
"CN=Administrator,CN=Users,DC=win2ksrvr1,DC=com" -w
":/,.++=" -t msft -b "dc=win2ksrvr1,dc=com"
```

- **Novell eDirectory(NDS) server:**

```
ldap_exp.exe -s NovSrvr1 -d "cn=Admin, o=server" -w
":/,.++=" -t nov -b "o=wa"
```

- **IBM Directory server:**

```
ldap_exp -s IBMSrvr1 -d "Cn=Administrator" -w ":/,.++="
-t ibm
 -b "dc=ibmsrvr1, dc=com"
```

4. Use the LDAP_IMPORT.exe for IS libraries to import the user entries from XML file into the specified IBM FileNet IS library.

Parameters:

/?	Help screen
/h<host>[:organization]	IS host or domain name, organization.
/u<id> (used with /p)	Authorized IS user name
/p"<pwd>" (used with /u)	Encrypted IS user password.
/i<file>	XML input file

For example, to import user entries from XML file:

```
C:\>ldap_import /hIMGSERV:FileNet /ildap_exp.xml
```

Note Options are not case sensitive. All the information or error messages are logged to the system log or the file 'ldap_importyyyymmddlog.txt'. If Username and password are not specified in the command, it prompts for username and password.

5. The IBM FileNet users created will have a password generated from the corresponding user IDs.

Changing ISRA Specific Parameters for LDAP

The configurable properties to be set (modified) in **ra.xml** are:

- LdapImplClassName
- LdapImplClassString
- InherentLogin

Refer to LdapImplClassName, LdapImplClassString, and InherentLogin, in section Configurable ra.xml Properties for details on the configuration of the respective entities.

5

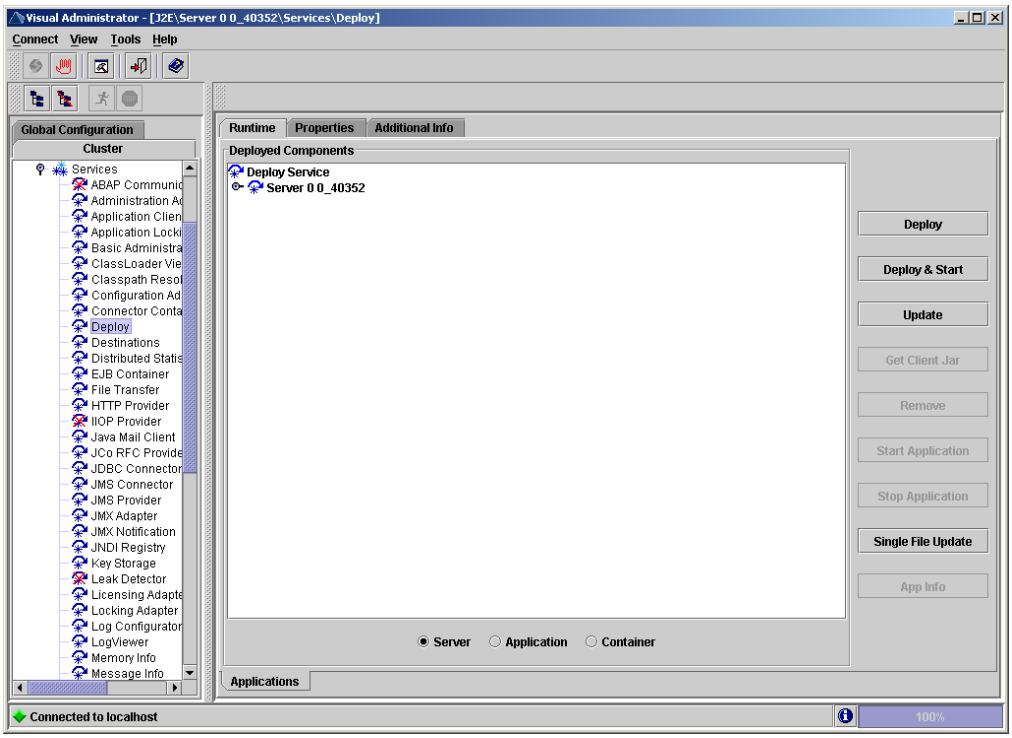
Undeployment

This section describes the undeployment procedure to remove ISRA and the Sample Application from the SAP WAS 6.40 Server.

Undeploying ISRA

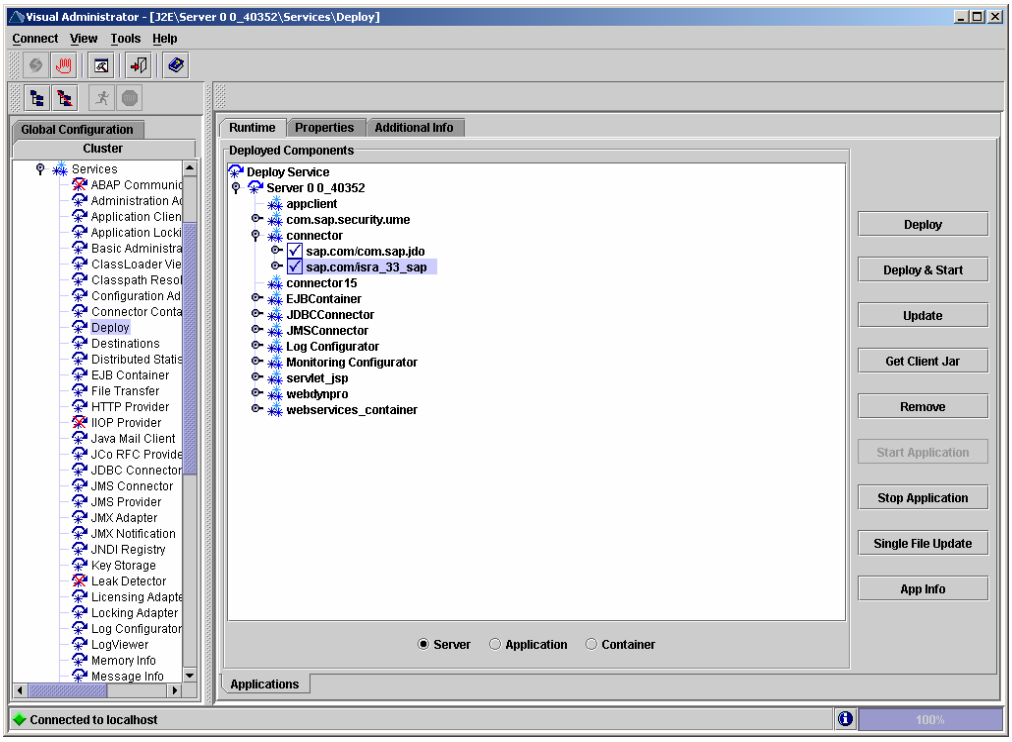
To undeploy ISRA using the Visual Administrator, perform the following steps:

1. In the SAP NetWeaver Administrative Console, navigate to **Services**. Refer to Configuring Deployed ISRA section for details. Click **Deploy**. The following screen appears.

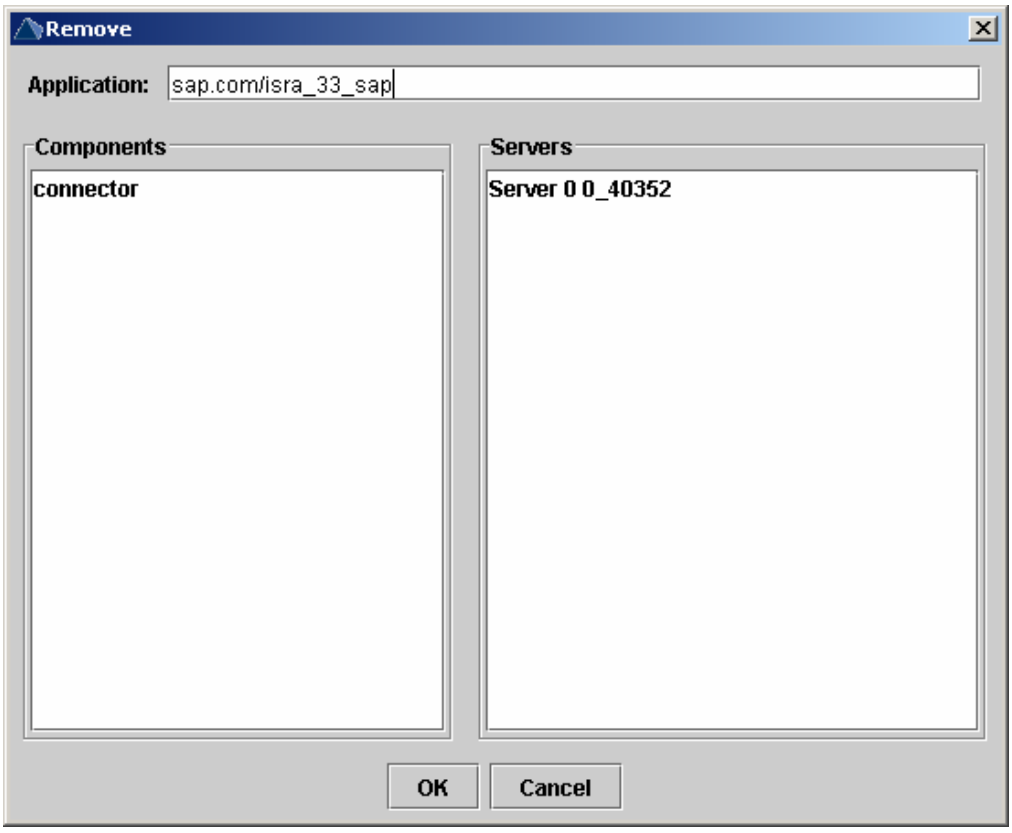


2. Under **Deployed Components**, navigate to **Deploy Service > Server 0 <id> > connector > sap.com/isra_34sap**. The following screen appears.

Note The id of Server 0 depends on the patch level version of **J2EE Engine** used in SAP NetWeaver WAS 6.40.



3. Click **Remove**. The following screen appears.



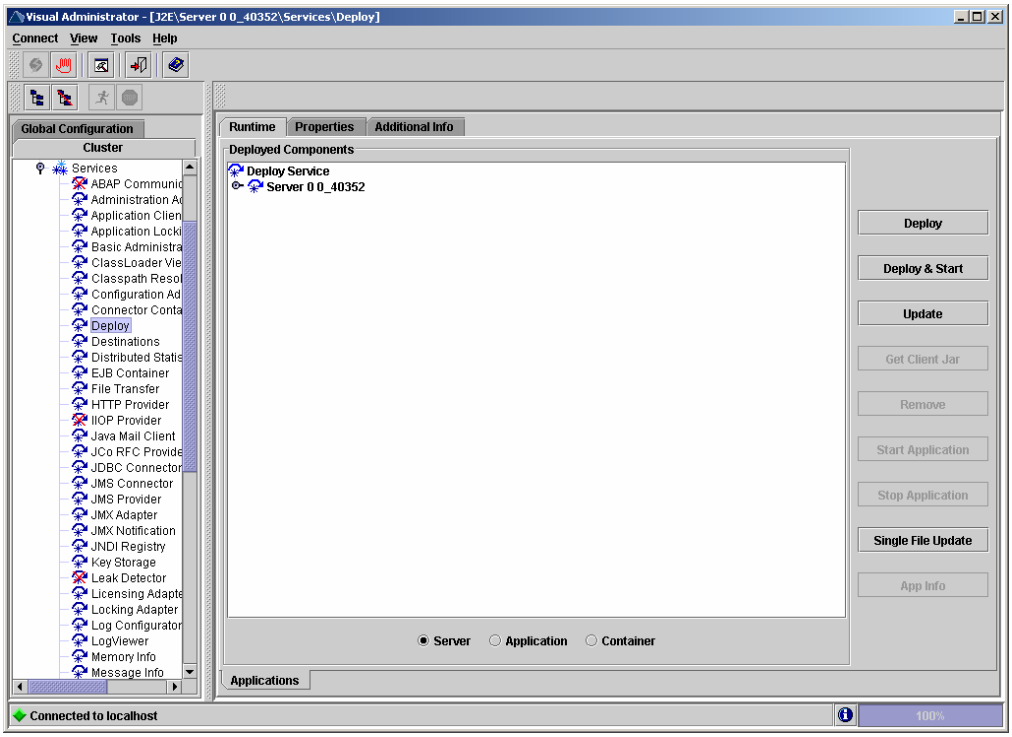
4. Click **OK** to undeploy **ISRA.**

ISRA gets undeployed.

Undeploying ISRA Console and Sample Application

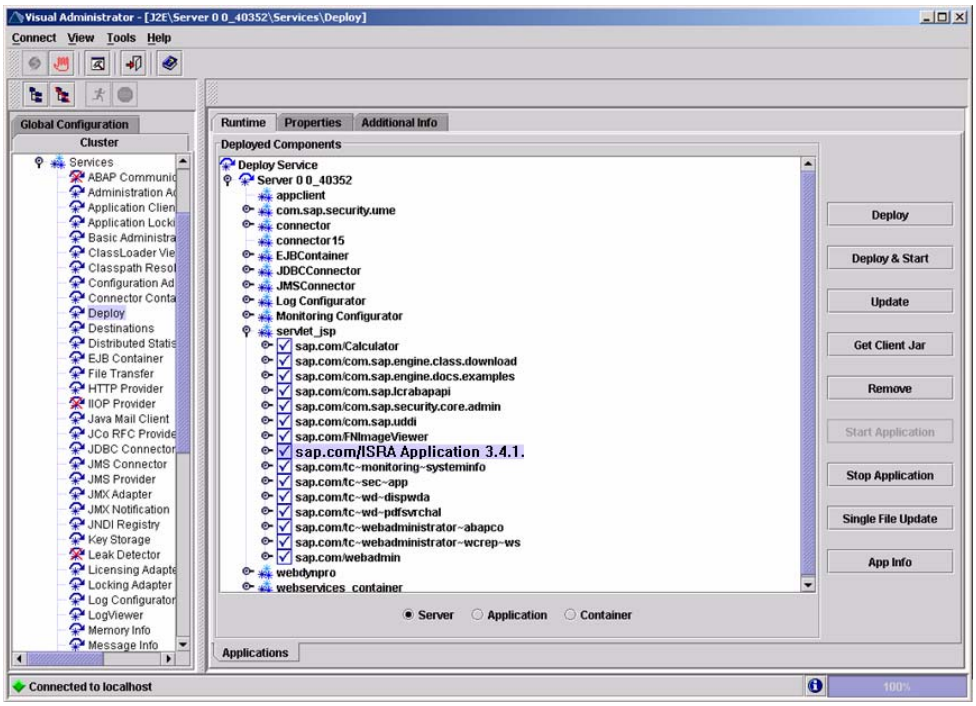
To undeploy ISRASample using Visual Administrator, perform the following steps:

1. In the SAP NetWeaver Administrative Console, navigate to **Services**. Refer to Configuring Deployed ISRA section for details. Click **Deploy**. The following screen appears.

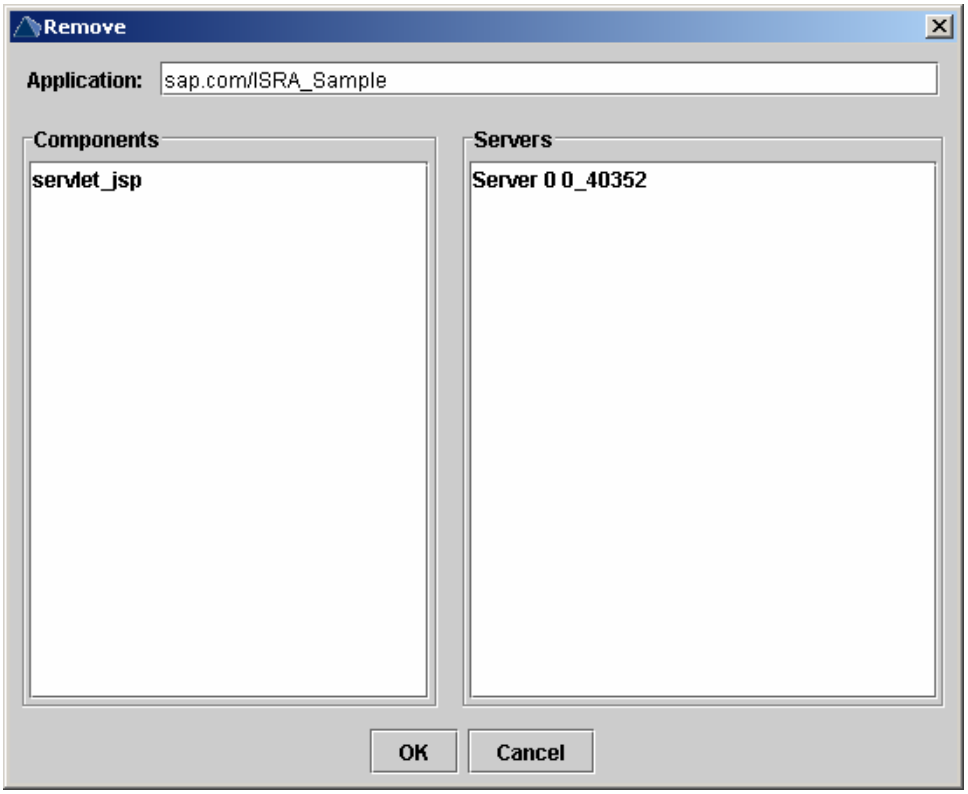


2. Under **Deployed Components**, navigate to **Deploy Service > Server 0 <id> > servlet_jsp > sap.com/ISRA Console**. The following screen appears.

Note The id of Server 0 depends on the patch level version of **J2EE Engine** used in SAP NetWeaver WAS 6.40.



3. Then click **Remove**. The following screen appears.



4. Click **OK** to undeploy **ISRA Console and Sample Application.**

ISRA Sample gets undeployed. Similarly, **FNImageViewer** can also be undeployed.

6

Troubleshooting

This section describes how to troubleshoot ISRA.

Disabling NCH Broadcasts

ISRA users (application client) need to access IS libraries across routers on networks where broadcasts are disabled. This is done by creating alias entries for the IS libraries in the hosts file, where ISRA is deployed. ISRA must locate the IP address of the NCH server to find other IS services for an IS setup.

ISRA attempts to find the NCH server by generating broadcast packets, even if the NCH server was not reachable using broadcasts. User can disable NCH server location broadcasts to reduce broadcast traffic on the network.

User may want to disable NCH broadcasts if:

- Routers are present between servers,
- Want no broadcast activity on the networks,
- Want to force a multi-homed server to use a specific IP address configured by the operating system network directory search facility.

To specify the alias in the hosts file:

1. Locate **hosts file** on the server. It is located in the `/etc` folder on UNIX/Linux systems. On a Microsoft Windows Server, it is located in the `\system32\drivers\etc` under the Windows installation directory.
2. Open the hosts file with a preferred text editor. If a host file does not exist, create a new file using the preferred text editor.
3. For each IBM FileNet library that user needs to connect through ISRA, entries should be made in the hosts file as `<IP address of domain:organization> <domain-organization>-nch-server`, where:
   - `<IP address of domain:organization>` is IP address of an IBM FileNet domain and organization identifying the target IBM FileNet library system (NCH Server).
   - `<domain-organization>` is domain and organization name. The rules to follow while specifying the domain-organization name are:
     - Delete all characters except ASCII alphanumeric characters and hyphens.
     - Convert all upper case characters to lower case.
     - Insert a hyphen between the domain and organization names.
     - Append nch-server as a literal.

   For example, if an IBM FileNet library has a domain, fn_is, and organization IBM, and its IP address is 123.45.6.78, the hosts file entry will be `123.45.6.78 fnis-IBM-nch-server`

Appendix A: ra.xml

ra.xml

```
<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE connector PUBLIC '-//Sun Microsystems, Inc.//DTD Connector
1.0//EN' 'http://java.sun.com/dtd/connector_1_0.dtd'>

<connector>
  <display-name>ISRA</display-name>
  <vendor-name>IBM</vendor-name>
  <spec-version>1.0</spec-version>
  <eis-type>IBM FileNet Image Services</eis-type>
  <version>3.4.0</version>
  <license>
    <license-required>false</license-required>
  </license>
  <resourceadapter>
    <managedconnectionfactory-
class>com.filenet.is.ra.spi.FN_IS_SpiManagedConnectionFactory</managedc
onnectionfactory-class>
    <connectionfactory-
interface>javax.resource.cci.ConnectionFactory</connectionfactory-
interface>
    <connectionfactory-impl-
class>com.filenet.is.ra.cci.FN_IS_CciConnectionFactory</connectionfacto
ry-impl-class>
    <connection-interface>javax.resource.cci.Connection</connection-
interface>
    <connection-impl-
class>com.filenet.is.ra.cci.FN_IS_CciConnection</connection-impl-class>
    <transaction-support>NoTransaction</transaction-support>
    <config-property>
      <description>Domain name of the Image Services
Server</description>
      <config-property-name>DomainName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>FileNetIS</config-property-value>
    </config-property>
    <config-property>
      <description>Organization name of the Image Services
Server</description>
      <config-property-name>OrganizationName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>IBM</config-property-value>
    </config-property>
    <config-property>
      <description>0-Exceptions and Warnings; 1-Info; 2-Debug
Level</description>
      <config-property-name>LoggingLevel</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>0</config-property-value>
```

```
    </config-property>
    <config-property>
      <description>0-No Logging; 1-Console Logging; 2-File Logging; 3-
Both(File and console)</description>
      <config-property-name>LoggingMode</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>3</config-property-value>
    </config-property>
    <config-property>
      <description>Page data fetch size (in kilo bytes)</description>
      <config-property-name>PageBufferSize</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>64</config-property-value>
    </config-property>
    <config-property>
      <description>Cache refresh interval(in minutes)</description>
      <config-property-name>CacheRefreshInterval</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>30</config-property-value>
    </config-property>


    <config-property>
      <description>Security cache mode(1-caches users and groups  2-
caches groups only)</description>
      <config-property-name>SecurityCacheMode</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>1</config-property-value>
    </config-property>

    <config-property>
      <description>Selective metadata refresh(1-printer cache 2-doc
class cache 4-key fields cache 8-menu values cache )</description>
      <config-property-name>MetaDataCacheRefreshMode</config-property-
name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>15</config-property-value>
    </config-property>

    <config-property>
      <description>Name of the Product</description>
      <config-property-name>ProductName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>IBM FileNet Image Services Resource
Adapter</config-property-value>
    </config-property>
    <config-property>
      <description>Product Version</description>
      <config-property-name>ProductVersion</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>ISRA 3.4.0 Enterprise</config-property-
value>
    </config-property>
    <config-property>
      <description>ISRA Logfile name (can include path) </description>
      <config-property-name>LogFileName</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
```

```
      <config-property-value>ISRA.log</config-property-value>
    </config-property>
    <config-property>
       <description>Maximum Size of ISRA LogFile (in mega
bytes)</description>
        <config-property-name>LogFileSize</config-property-name>
        <config-property-type>java.lang.Integer</config-property-type>
        <config-property-value>5</config-property-value>
    </config-property>
      <config-property>
                <description>LDAP Authentication Class
Name</description>
           <config-property-name>LdapImplClassName</config-property-
name>
           <config-property-type>java.lang.String</config-property-
type>
           <config-property-
value>com.filenet.is.ra.fnis.FN_IS_IPlanetImpl</config-property-value>
    </config-property>
    <config-property>
                <description>Server details for LDAP Authentication
</description>
           <config-property-name>LdapImplClassString</config-property-
name>
           <config-property-type>java.lang.String</config-property-
type>
           <config-property-
value>filenetserver;389;ou=Users,ou=FileNet,dc=FilenetRoot</config-
property-value>
    </config-property>
    <config-property>
                <description>Inherently login through LDAP
authentication or not 0-Direct IS Login;1-LDAP
Authentication</description>
         <config-property-name>InherentLogin</config-property-name>
         <config-property-type>java.lang.Integer</config-property-type>
         <config-property-value>0</config-property-value>
    </config-property>
    <config-property>
       <description>ISRA instance that is currently being deployed on a
single machine; Min Value = 1, Max Value = 10</description>
        <config-property-name>DeploymentInstance</config-property-name>
        <config-property-type>java.lang.Integer</config-property-type>
        <config-property-value>1</config-property-value>
    </config-property>
   <config-property>
      <description>Parameter to enable PCH Logging in ISRA
</description>
      <config-property-name>PCHLogging</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>Disabled</config-property-value>
   </config-property>
   <config-property>
         <description>LDAP Anonymous user login flag</description>
         <config-property-name>AllowAnonymousUser</config-property-
name>
         <config-property-type>java.lang.Boolean</config-property-type>
```

```
        <config-property-value>true</config-property-value>
 </config-property>
 <config-property>
      <description>0-No Logging; 1-File Logging</description>
      <config-property-name>RPCLogging</config-property-name>
      <config-property-type>java.lang.Integer</config-property-type>
      <config-property-value>0</config-property-value>
    </config-property>
 <config-property>
      <description>Codepage for ISRA</description>
      <config-property-name>ClientCodepage</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>cp1250</config-property-value>
 </config-property>
 <config-property>
      <description>Locale of the Image Services Server (two letter ISO
language code, for example en, de, ar, ja)</description>
      <config-property-name>ISLocale</config-property-name>
      <config-property-type>java.lang.String</config-property-type>
      <config-property-value>en</config-property-value>
  </config-property>
  <config-property>
   <description>It is a configurable parameter to Ignore [77,0,11 The
object is busy] error, incase of DocMigration</description>
   <config-property-name>IgnoreObjectBusyMsgInDocMigration</config-
property-name>
   <config-property-type>java.lang.Boolean</config-property-type>
   <config-property-value>false</config-property-value>
 </config-property>
    <authentication-mechanism>
      <authentication-mechanism-type>BasicPassword</authentication-
mechanism-type>
      <credential-
interface>javax.resource.security.PasswordCredential</credential-
interface>
    </authentication-mechanism>
    <reauthentication-support>false</reauthentication-support>
  </resourceadapter>
</connector>
```

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