Oracle® Utilities Work and Asset Management

Installation Guide

Release 1.9

E18222-01

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Introduction

This document provides instructions for a new installation of the following on Windows and on Linux:

- Oracle Application Server 10g for the Oracle Utilities Work and Asset Management product
- Oracle Utilities Work and Asset Management Release 1.9.

Due to the number of options presented during the install, it is essential that the considerations and installation steps in this guide are followed exactly as presented here. It is a good idea to read through the entire document before you begin your installation.

This guide applies for NEW installations only. If you are upgrading from a previous version please refer to the Oracle Utilities Work and Asset Management Upgrade Guide for Release 1.9.

Linux Installation

If you are installing on Linux, please note that most of the installation steps are the same. Exceptions are detailed in the section titled "Linux Installation." Please refer to this section

Non-English Language Support

If you are installing a version of the application which is translated to a language other than English, please refer to the section titled "Non-English Language Support" for special installation tasks which need to be completed to support localization settings.

Steps by Example

The following steps are described by example, rather than by using generic terms – that is, rather than refer to <release version> or <oracle home> (for example) repeatedly, a sample release version, the actual name of the home we chose and the actual installation path chosen will be used. This has been done to avoid adding complexity, and to allow the text to match the screen-shots used.

Substitute names and paths in place of the names and paths given here. Wherever possible, use the same names. Keep in mind that names are often case sensitive.

The examples here are based on Windows install but are also applicable to a Linux install. Make sure that you use the correct syntax for each operating system platform.

For example:

In Windows the path might be: d:\ora10gINF, while in Linux, the might be /home/oracle/Ora10gINF

A note regarding screen shots

Screen shots are included for representative purposes only. They may show an older release number or may not exactly match what you see during the actual installation.

Pre-Installation Considerations

The following prerequisites are generally from Oracle, and have been found to be extremely important.

1. **IP Address**: The server must have a static IP address, and this IP should not change after the install.
   Changing the IP may be supported by Oracle, but can be problematic and is not recommended.

2. **Computer Name:** The computer name must not start with a number or include an underscore.
   Examples:
   10gServer is NOT an acceptable computer name.
   cmms_app1 is NOT an acceptable computer name. We have found that the installation will appear to complete without error, but certain required configuration steps will fail. Underscores are not legal characters in the DNS system, however Microsoft Windows 2000 still allows you to name a computer using underscores to provide backwards compatibility, but doing so will result in an unusable system.

3. The computer name cannot be changed after the install

4. **Admin Account:** The installation of the software MUST be performed under the same account that will later administer the product/server. The same logon must be used during the install, and all subsequent administration of the product. This account needs to have administrator privileges on the server.

5. **Oracle Application Server:** Do not install Oracle Application Server 10g on a server which already has Oracle Application Server Forms and Reports Services 10g. Oracle Application Server 10g can be installed on a server where other Oracle products are already installed, although it is not a recommend practice.

6. Oracle Application Server 10g must be upgraded to 10.1.2.3 and have patch 8727236 applied.

7. **IIS:** Install IIS prior to installing Oracle Application Server 10g. This prevents a port conflict when installing the Oracle Application Server 10g reports service. This requirement does not apply for a Linux install.

8. **Reset Password Functionality:** Consider whether you will implement the new Reset Password functionality. (See release notes 8481185). If so you will need to add a second datasource to the OC4J instance as described in the Data Source Configuration section and run the manual script described at the end of this document.

Windows Installation

There are two phases of installation in order to deploy a fully configured Oracle Application Server 10g. The first phase consists of installing the Infrastructure components and the second phase consists of installing the Mid-Tier components.

Please fill out the values exactly as identified in this document. This will ensure consistent naming across customer implementations and aid in troubleshooting efforts. Also, when prompted for passwords, please make note of them and make sure they are consistent throughout the install.

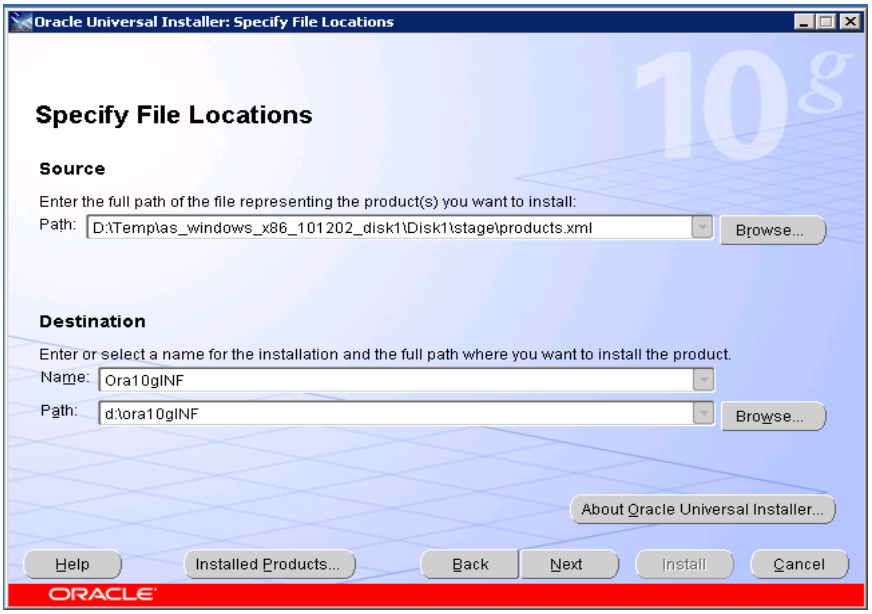
Infrastructure Installation

A successful Oracle Application Server 10g Infrastructure install is a pre-requisite to the main Mid –Tier install.

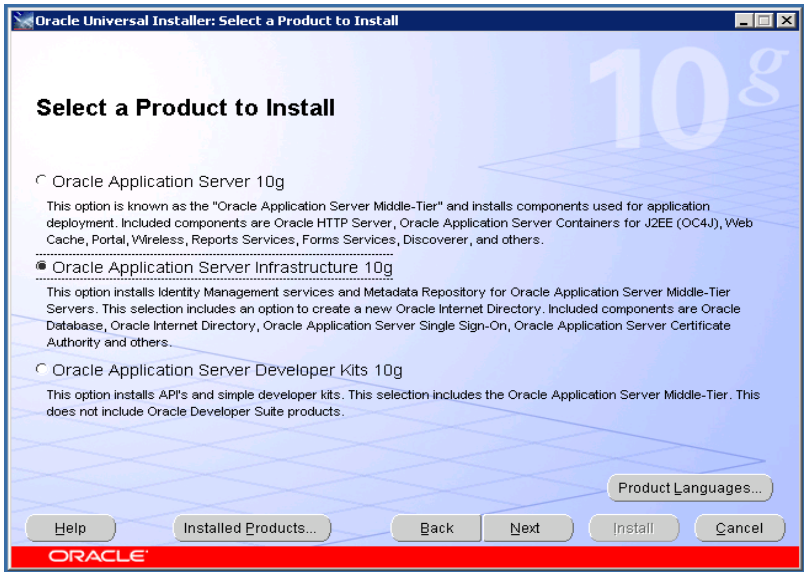
1. Run the Oracle Installer from the OAS CD.
2. After clicking Next on the initial 'Welcome' screen, the following screen is presented. Modify the following then click Next:

   Destination:
   Name: *Ora10gINF*

   Path: <drive letter:>*ora10gINF*

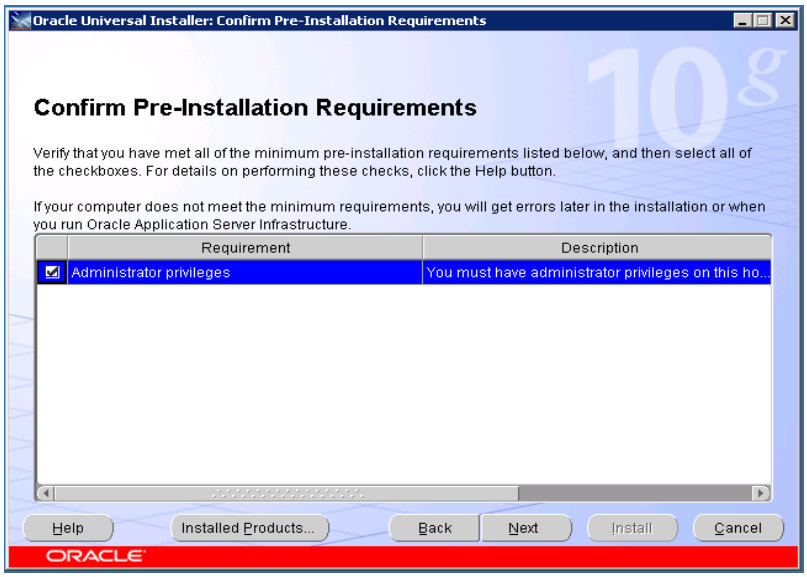


3. On the following screen, choose the ‘Oracle Application Server Infrastructure 10g’ option, then click Next:

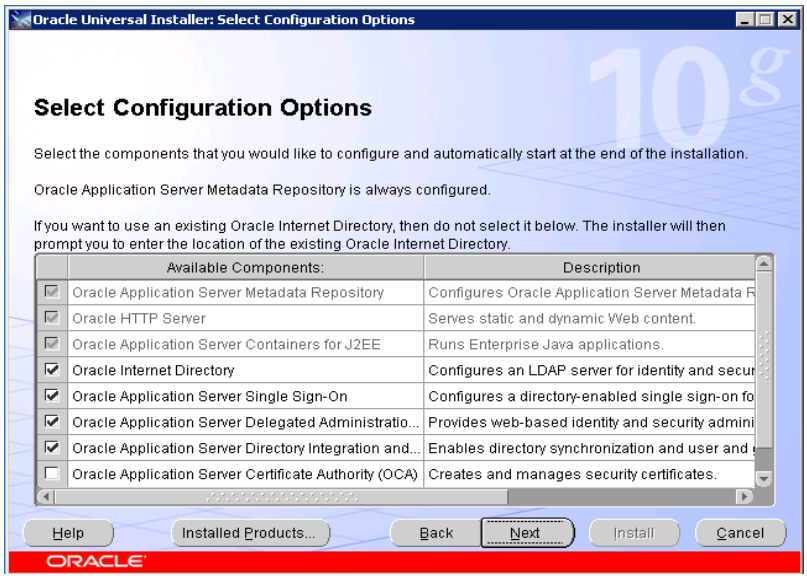


4. On the following screen, choose the ‘Identity Management and Metadata Repository’ option, then click Next:

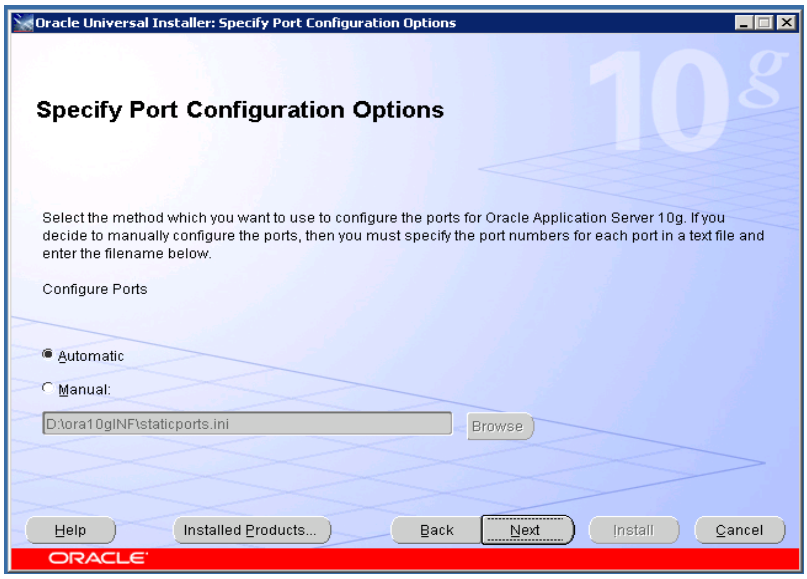
5. On the following screen, confirm that the user performing the install has administrator privileges, then click Next:



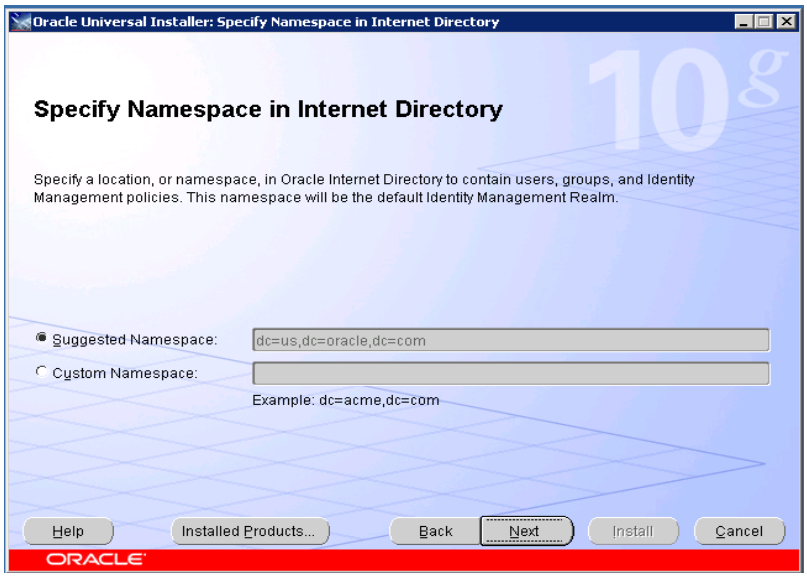
6. On the following screen, select the items as noted, then click Next:



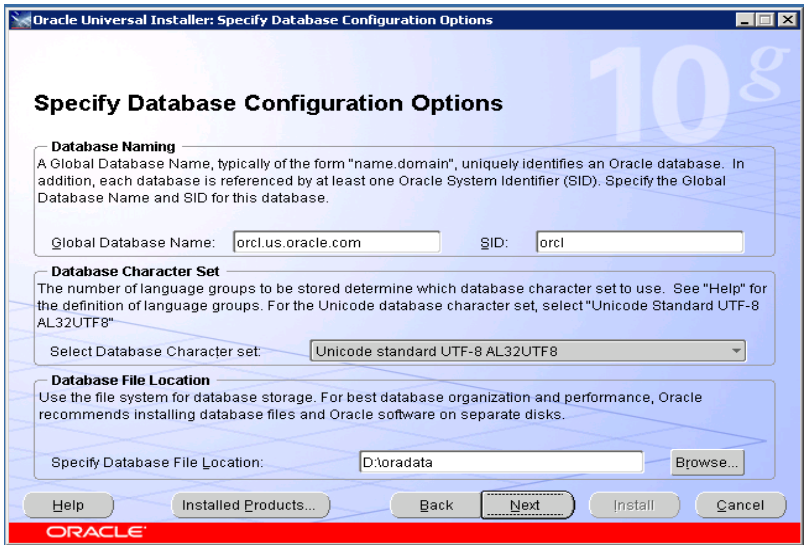
7. On the following screen, select ‘Automatic’, then click Next:



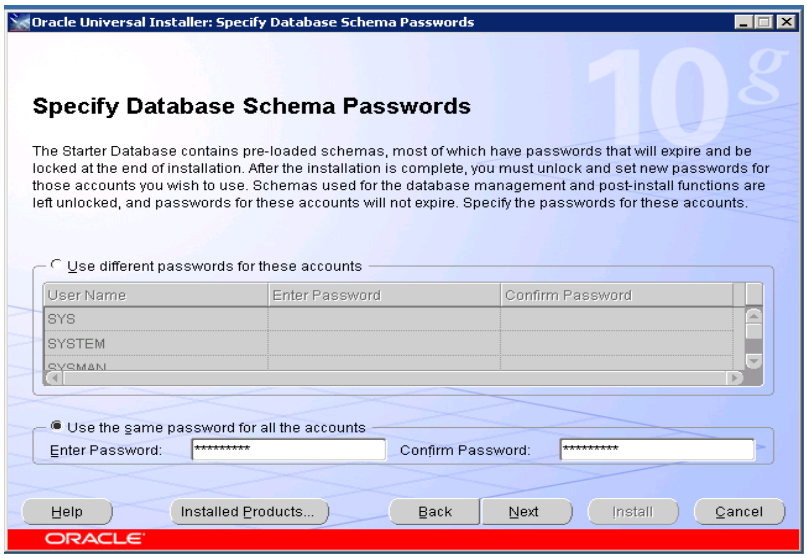
8. On the following screen, select ‘Suggested Namespace,’ then click Next:



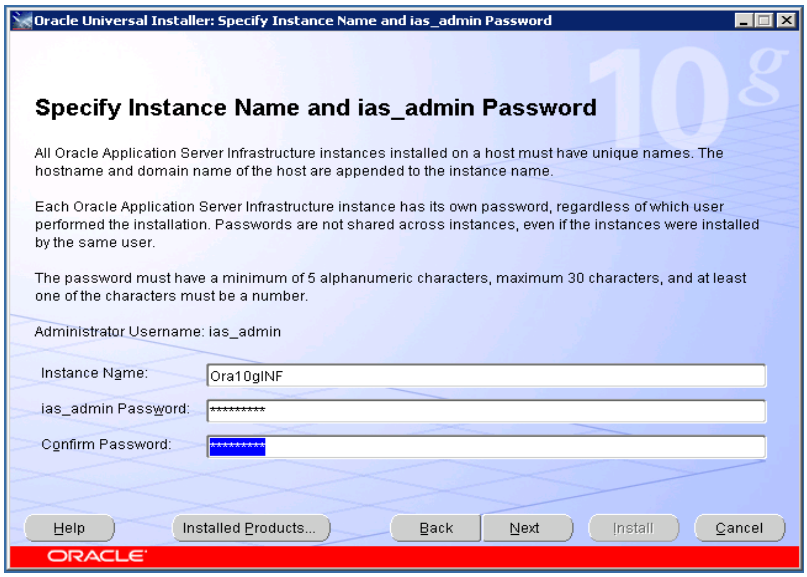
9. On the following screen, set the ‘Global Database Name’ by adding a valid domain name to the ‘orcl.’ value and change the drive letter for the ‘Database File Location’ to reflect the installation directory, then click Next:



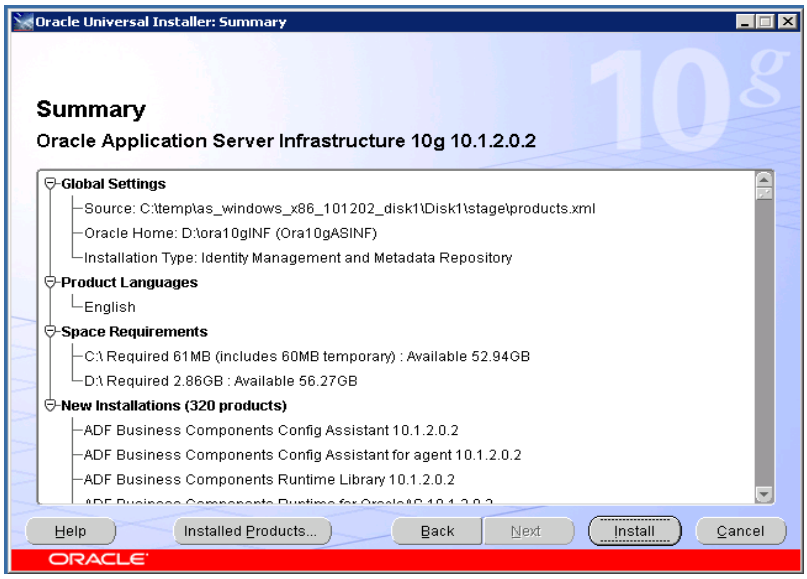
10. On the following screen, choose either option for specifying database passwords, then click Next:



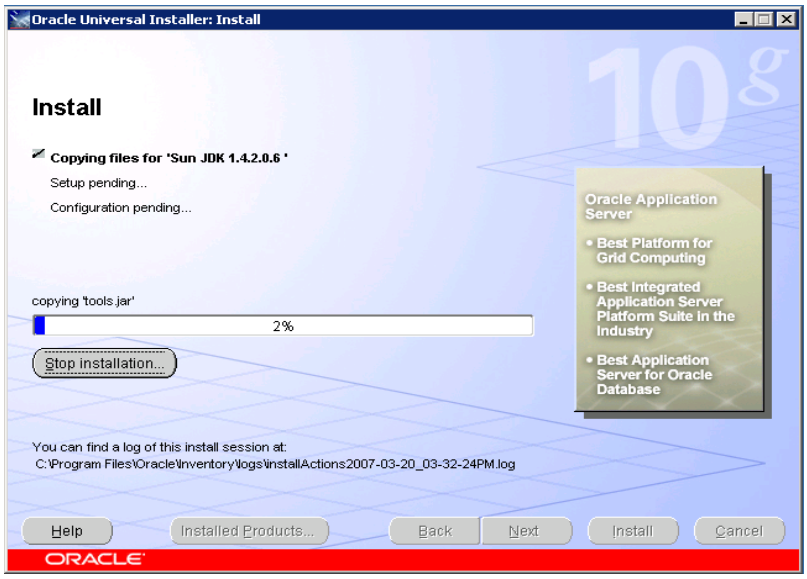
11. On the following screen, specify the instance name as Ora10gINF and enter the password (remember these values), then click Next:



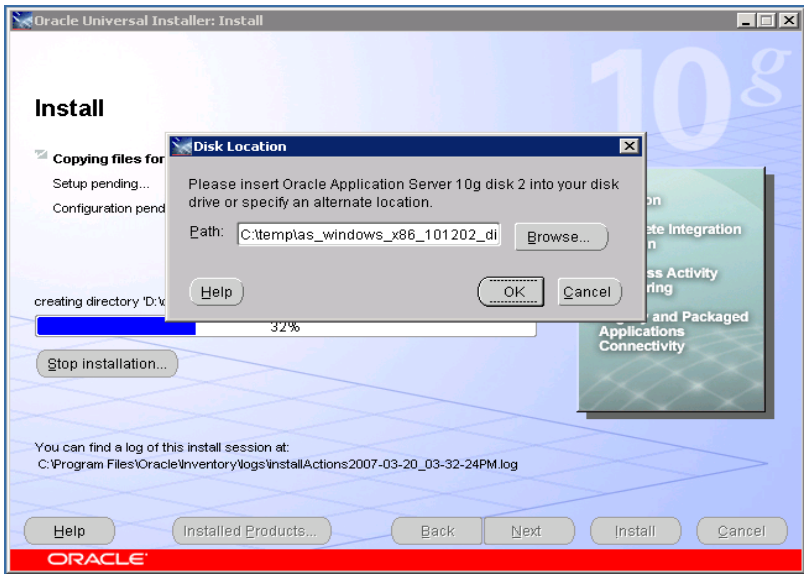
12. On the following screen is a summary of what will be installed, then click Install:



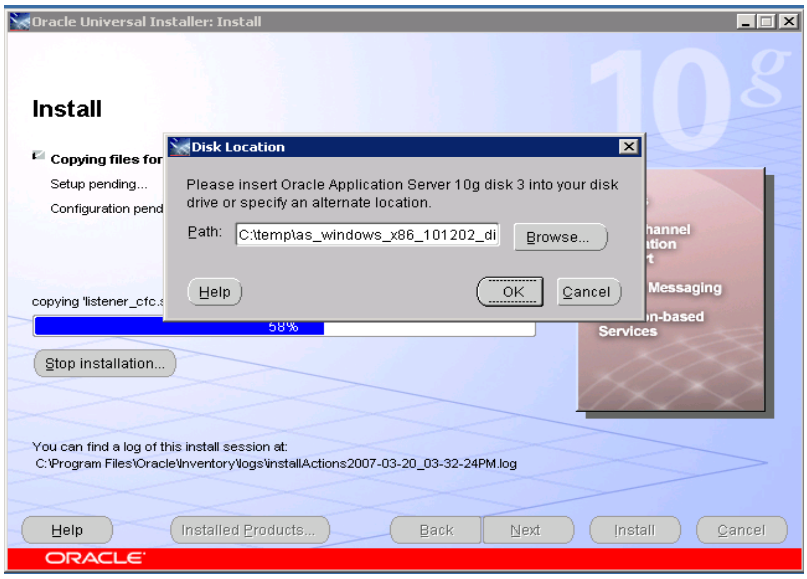
13. The install process will commence as noted in the following screen:



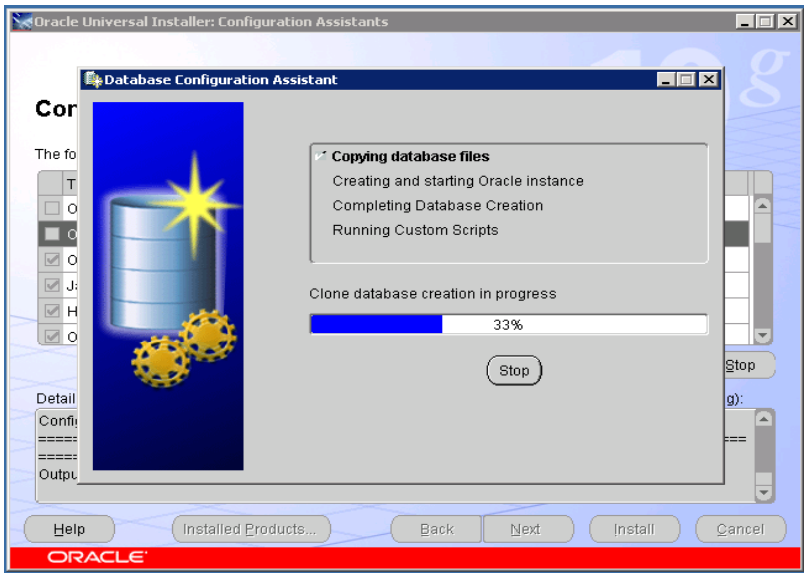
14. The Oracle Installer will prompt for Disk2 and Disk3 during the install. Navigate to where the folder for Disk2 resides, then click OK:



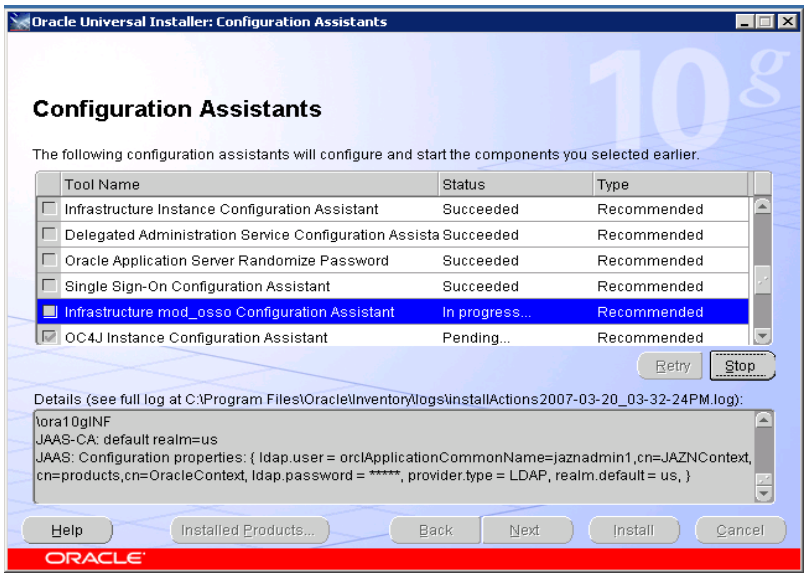
15. Navigate to where the folder for Disk3 resides when prompted, then click OK:



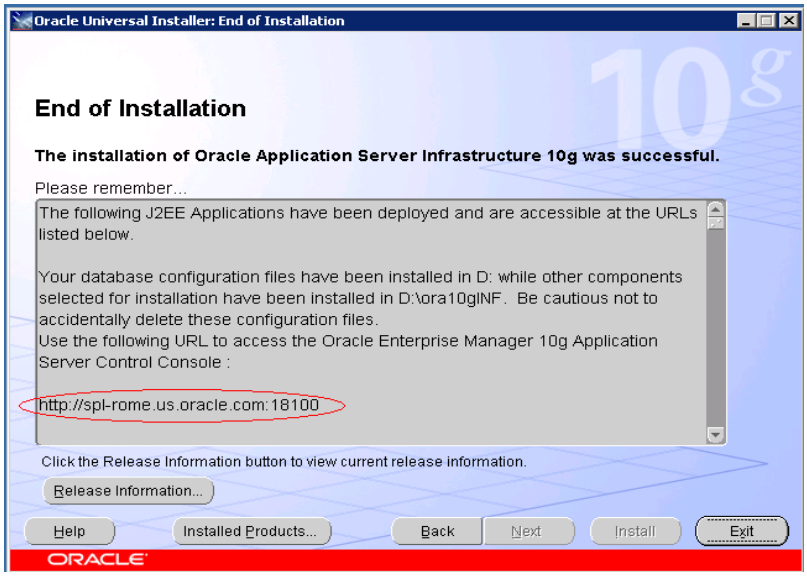
16. The database creation step will commence based on attributes provided in previous screens:



17. After the database step is completed, the following screen shows the status of the Infrastructure components as they are installed:



The following summary screen is presented after completion of the Infrastructure components. Make note of the URL at the bottom of the screen. This URL enables access to the EM console to manage the Infrastructure environment:



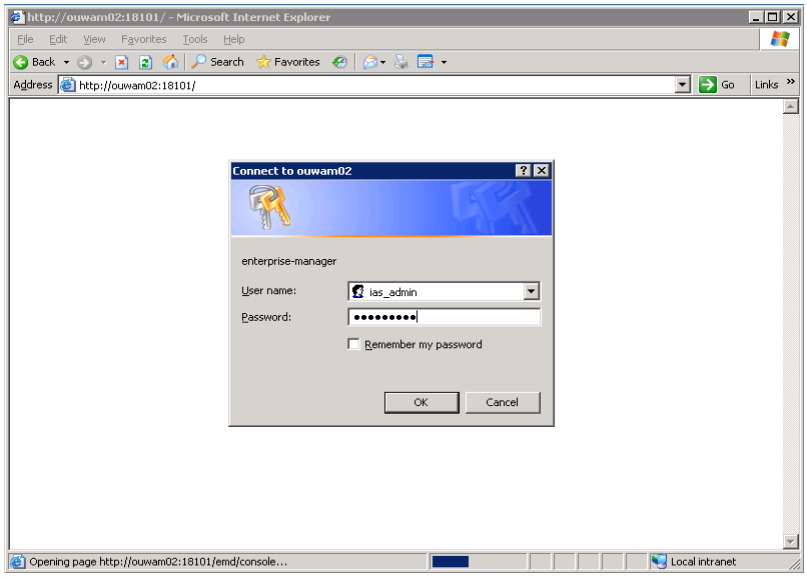
18. Click ‘Exit and then ‘Yes’ on the confirmation window.

Post Infrastructure Installation

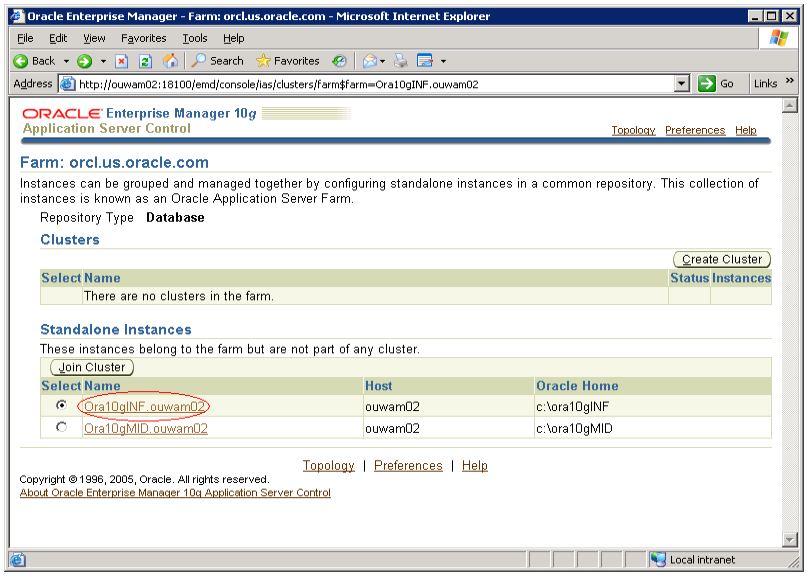
After the Infrastructure installation is complete, log into the Oracle Application Server 10g Enterprise Manager Console to validate that required services are up and running.

1. Open Internet Explorer and enter the URL from the Infrastructure summary screen.
   A login window opens.

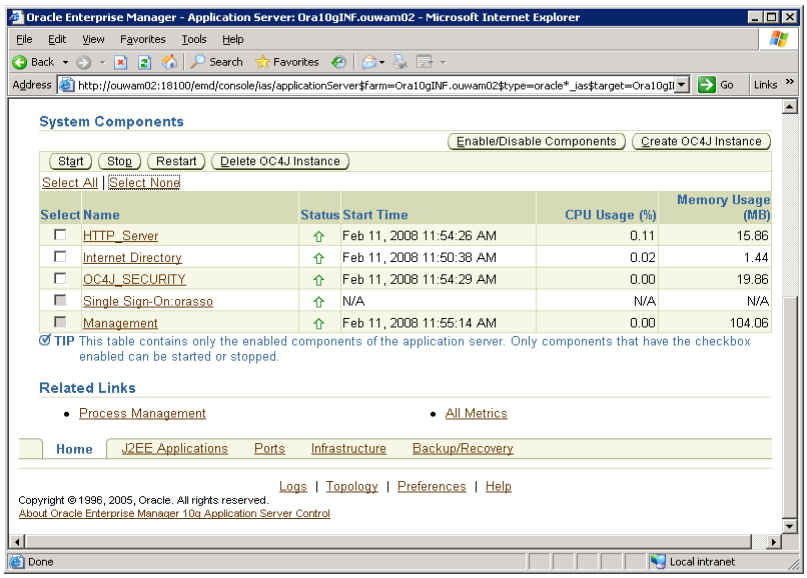
2. Enter in the ias_admin user and password that was defined during the Infrastructure installation:



3. Click the link that has the Oracle Home ending in 'INF' (circled in this example):



4. In the following screen are the list of system components and their status after a successful Infrastructure install:



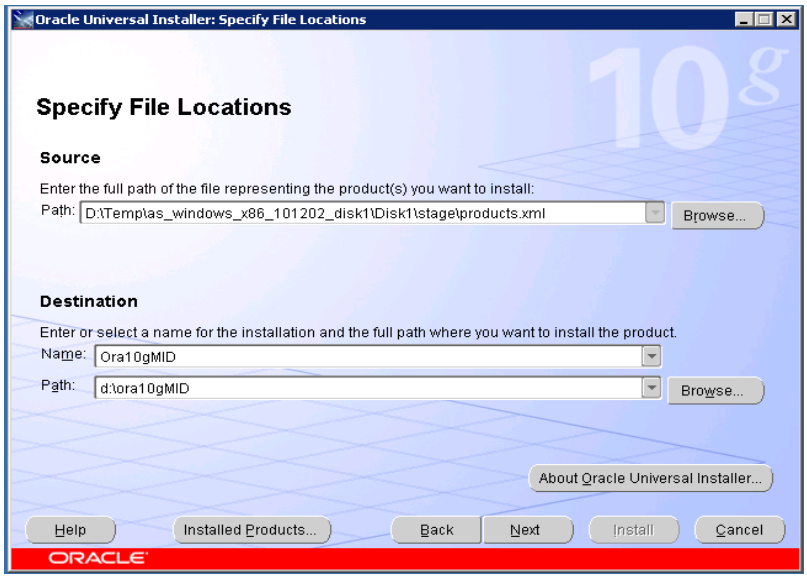
Mid-Tier Installation

The Mid-Tier install is the installation that provides the 'forms and reports' function used by Oracle Utilities Work and Asset Management application.. Even though the Mid-Tier can be installed on a different server from the Infrastructure, it is not necessary to do so. Further, all testing and certification has been performed with both Infrastructure and Mid-Tier components on the same server. Please note that an install of the Mid-Tier requires a successful install of the Infrastructure, otherwise the Mid-Tier install will fail.

1. Run the Oracle Installer from the OAS CD.
2. After clicking Next on the initial 'Welcome' screen, the following screen is presented. Modify the following then click Next:

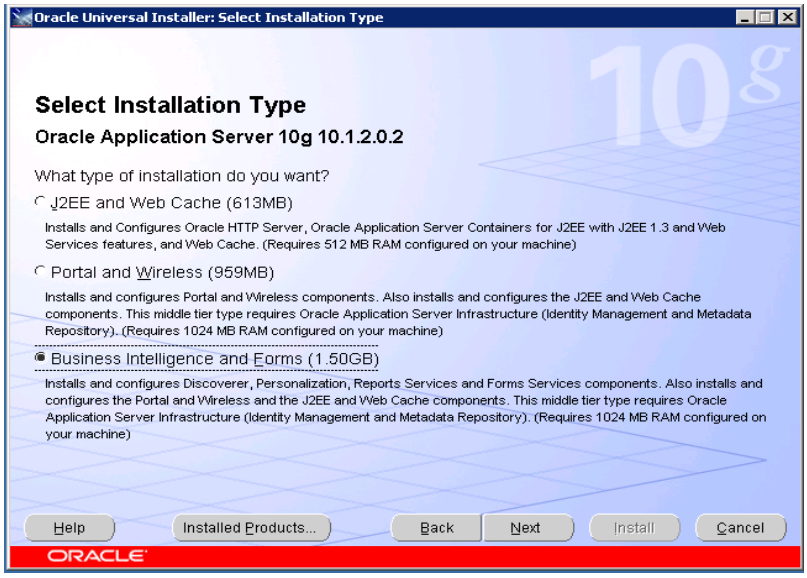
   Destination:
   Name: *Ora10gMID*

   Path: <drive letter:>*ora10gMID*

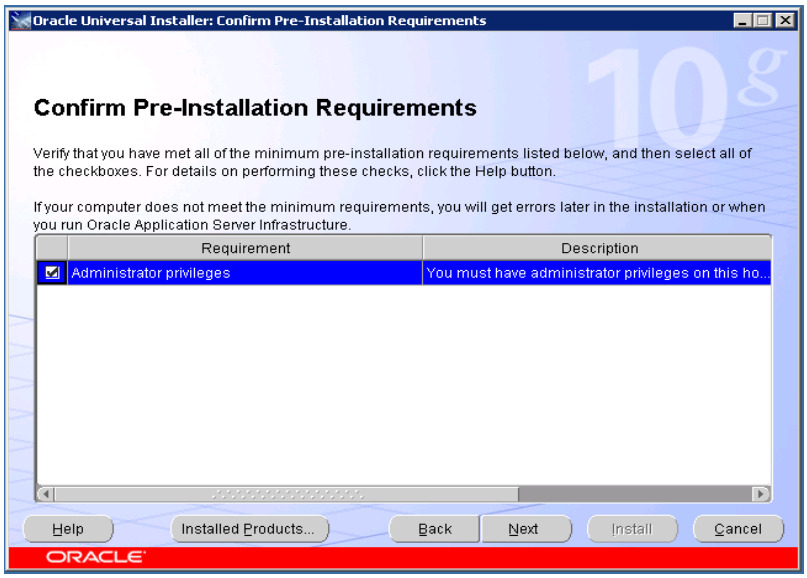


3. On the following screen, choose “Oracle Application Server 10g’ option, then click Next:

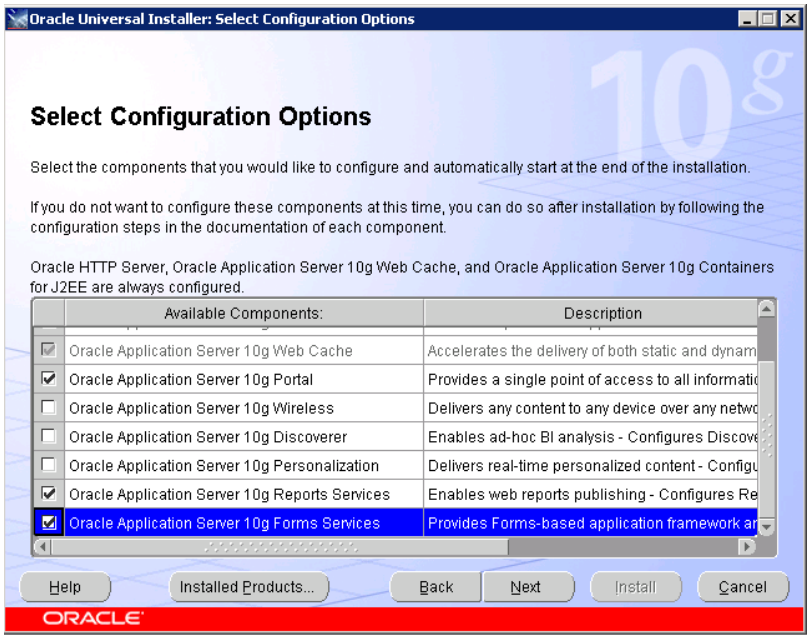
4. On the following screen, choose ‘Business Intelligence and Forms’ option, then click Next:



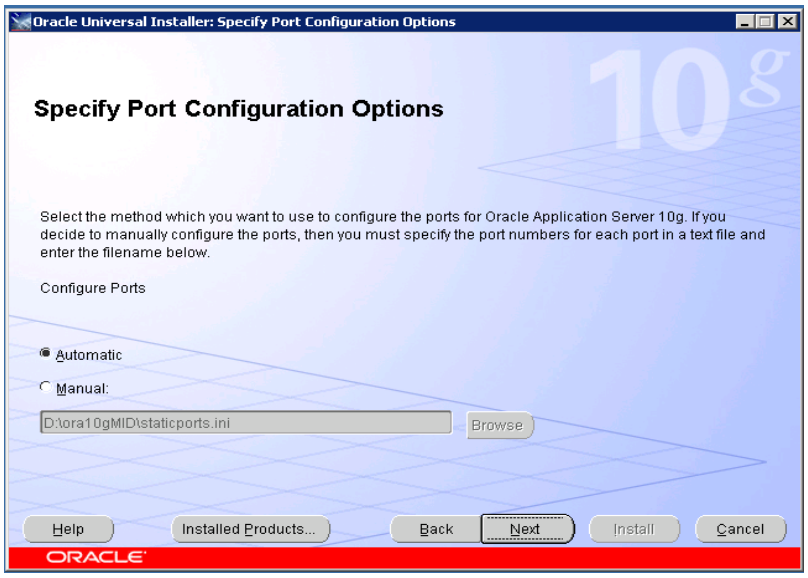
5. On the following screen, confirm that the user performing the install has administrator privileges, then click Next:



6. On the following screen, select the items as noted, then click Next:



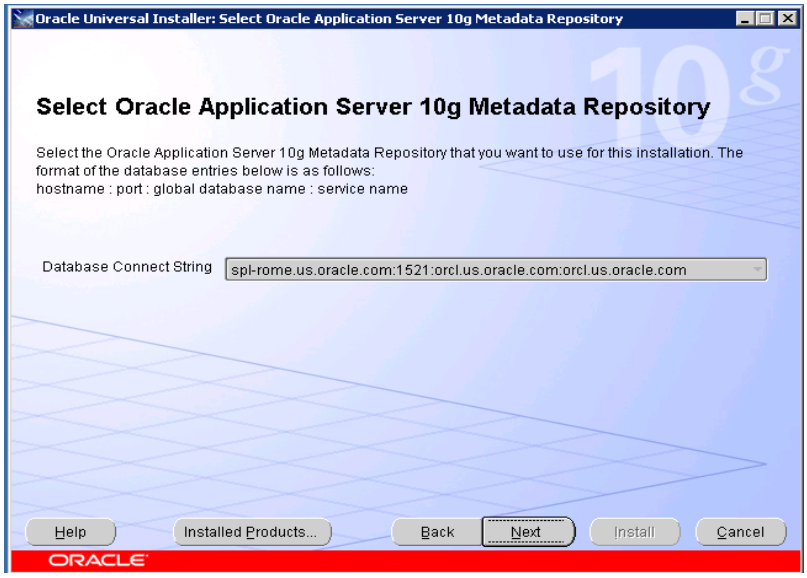
7. On the following screen, select 'Automatic,' then click Next:



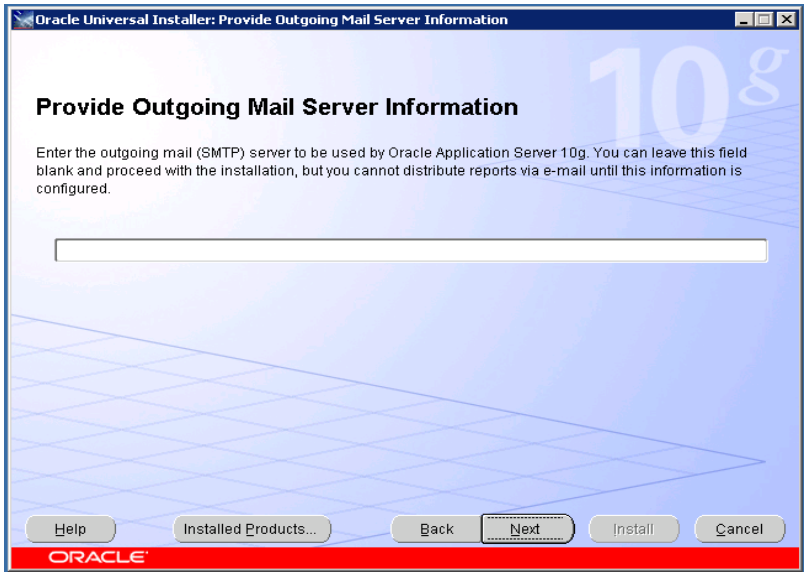
8. On the following screen, enter the server name where the Infrastructure components were installed and the value of 389 for the port, then click Next:

9. On the following screen, enter the password established when specifying the instance name and password for the Infrastructure install, then click Next:

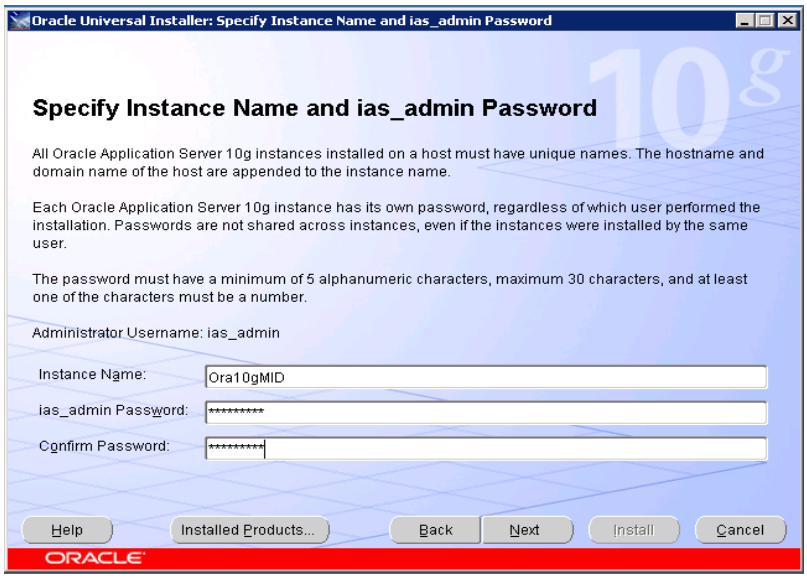
10. On the following screen, confirm the ‘Database Connect String,’ then click Next:



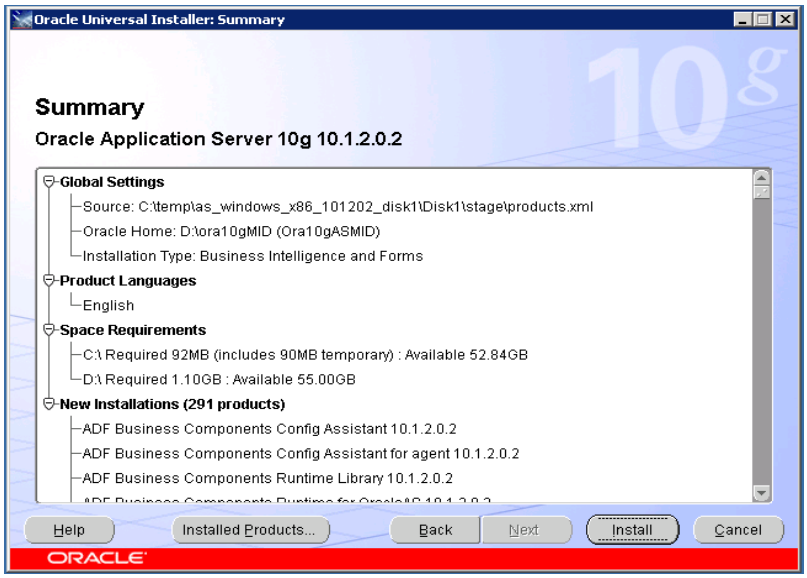
11. On the following screen, leave the value blank as this email service is not used, then click Next:



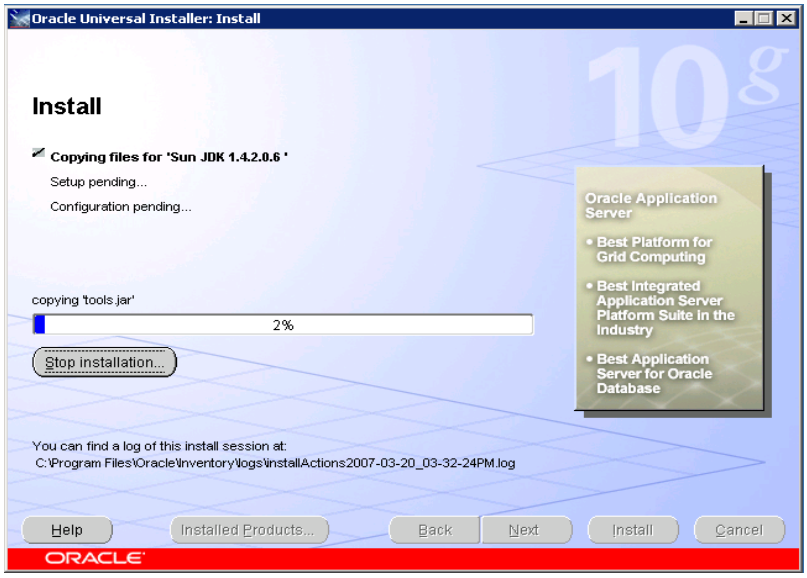
12. On the following screen, specify the instance name as Ora10gMID and enter the password (remember these values) , then click Next:



13. On the following screen is a summary of what will be installed, then click Install:

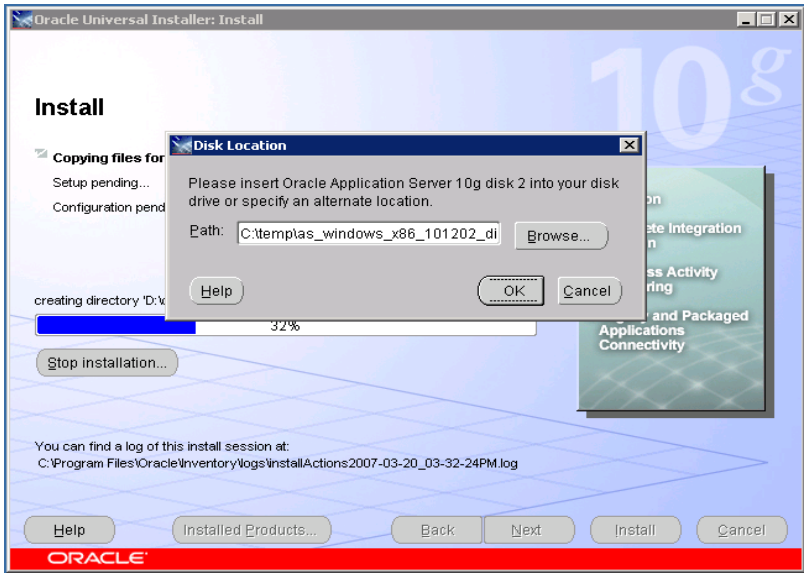


The install process starts as noted in the following screen:

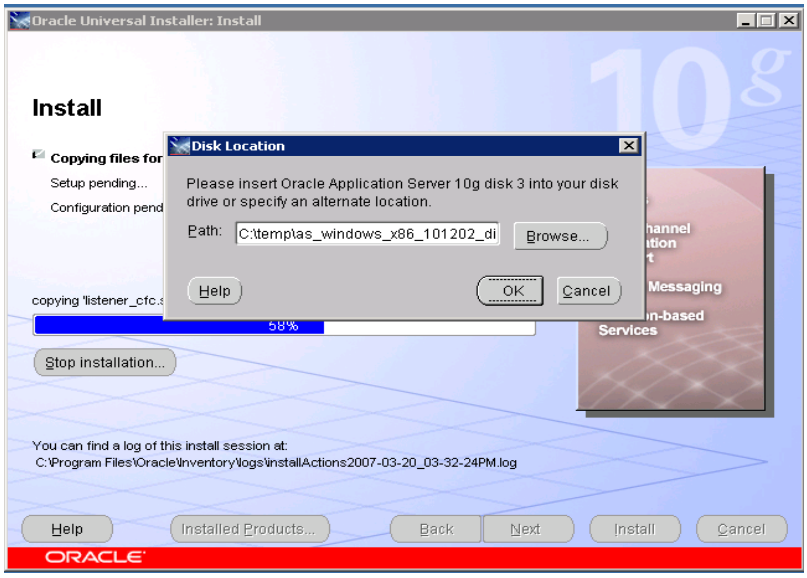


The Oracle Installer prompts for Disk2 and Disk3 during the install.

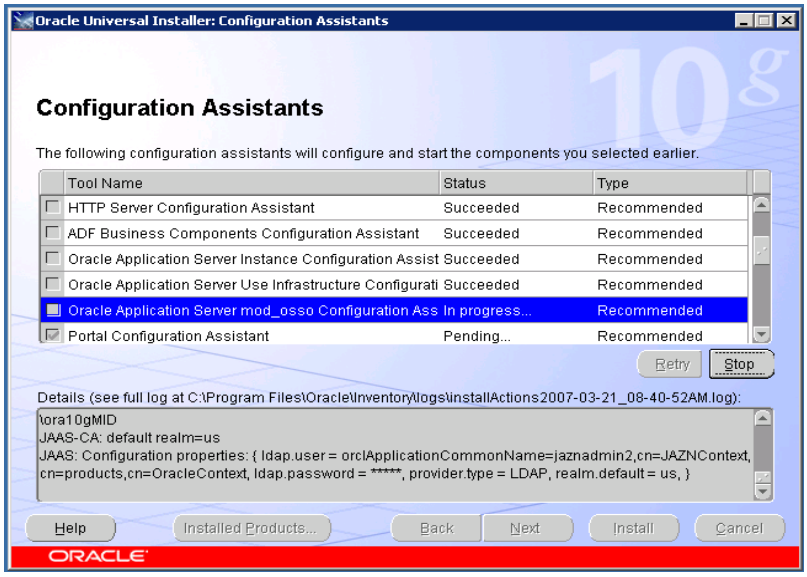
14. Navigate to where the folder for Disk2 resides, then click OK:



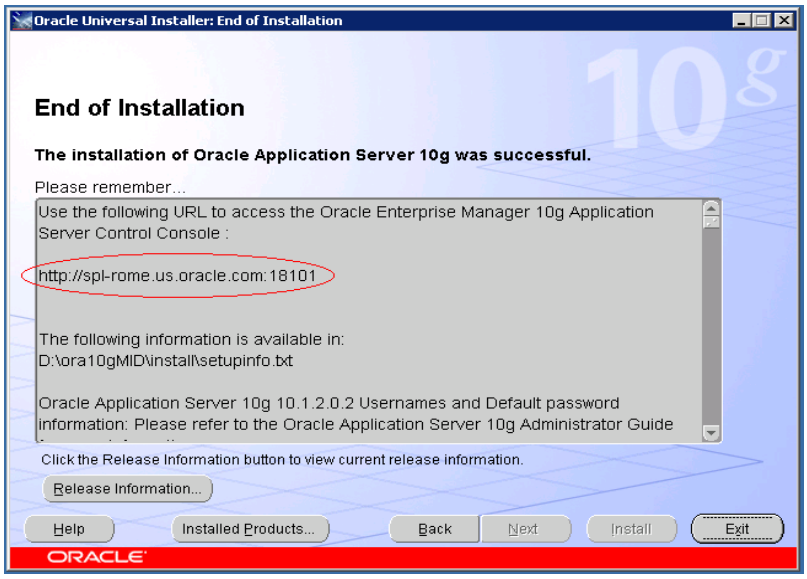
15. Navigate to where the folder for Disk3 resides when prompted, then click OK:



The following screen shows the status of the Mid-Tier components as they are installed:



The following summary screen is presented after completion of the Mid-Tier components. Make note of the URL. This URL enables access to the EM console to manage the Mid-Tier environment:

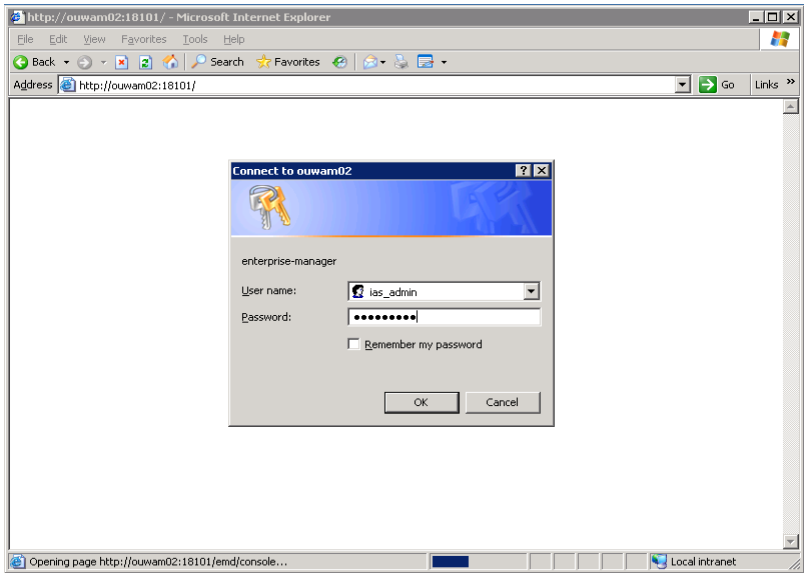


16. Click ‘Exit and then ‘Yes’ on the confirmation window.

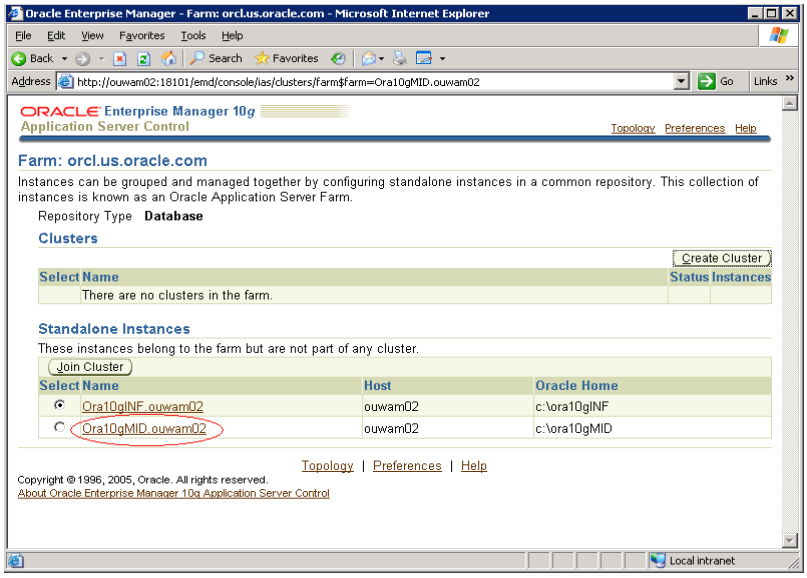
Post Mid-Tier Installation

After the Mid-Tier installation is complete, log into the Oracle Application Server 10g Enterprise Manager Console to validate that required services are up and running.

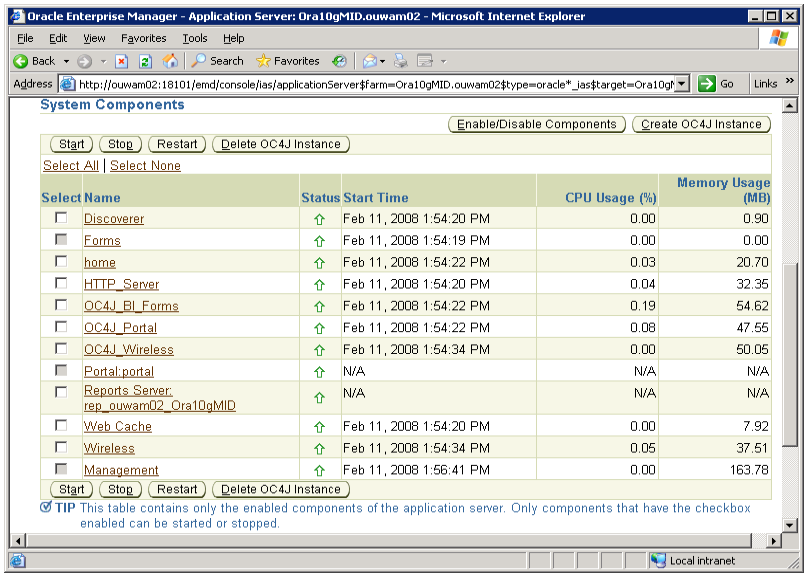
1. Open Internet Explorer and enter in the URL from the Mid-Tier summary screen.
   A login window opens.
2. Enter in the ias_admin user and password that was defined during the Mid-Tier installation:



3. Click the link that has the Oracle Home ending in ‘MID’ (circled in this example):

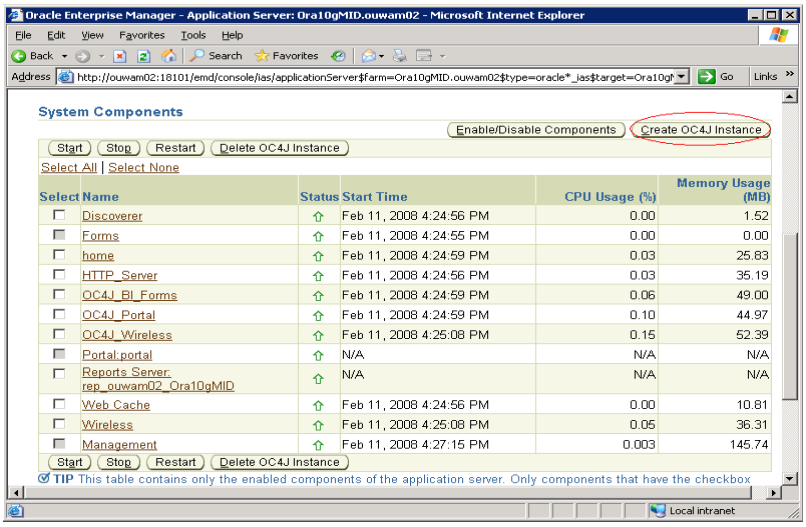


4. In the following screen are the list of system components and their status after a successful Mid-Tier install:

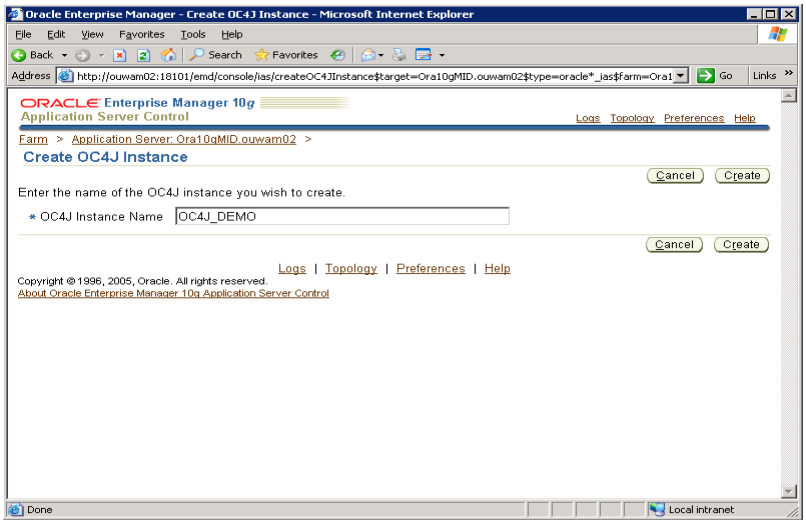


Configure Mid-Tier Environment

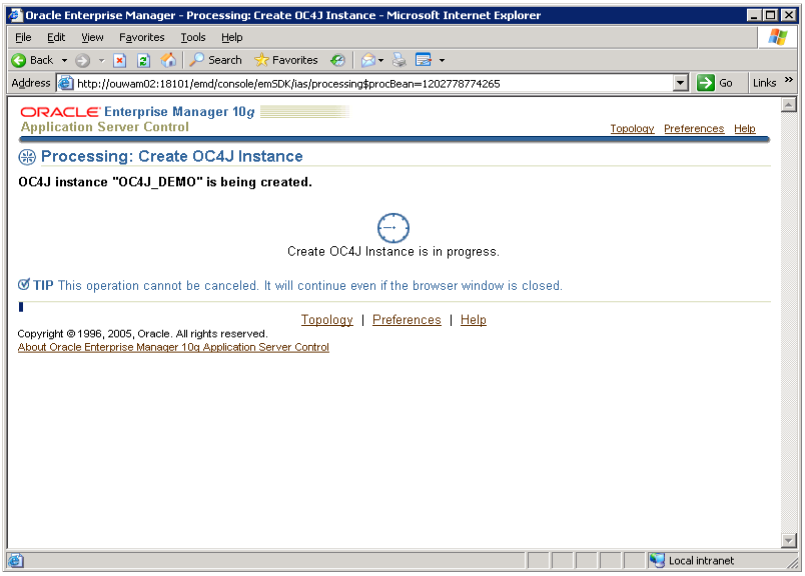
1. Log into the Oracle Application Server 10g Enterprise Management console and chose the Mid-Tier link.
2. On the following screen, click ‘Create OC4J Instance’ (circled in this example):



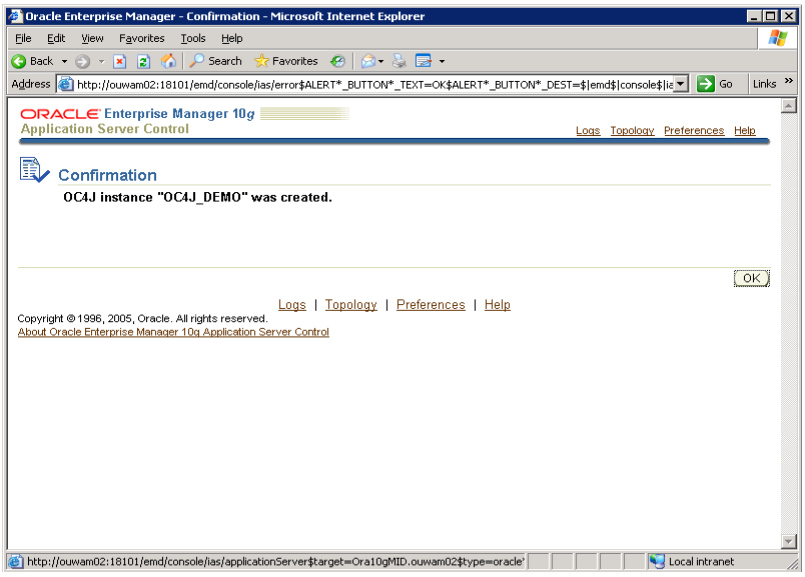
3. On the following screen, enter in the OC4J Instance Name. Precede the instance name with ‘OC4J_’ in upper case then click Create.
   Note that the instance name is case sensitive and all subsequent entries must follow case:



The following screen shows the status of the creation:

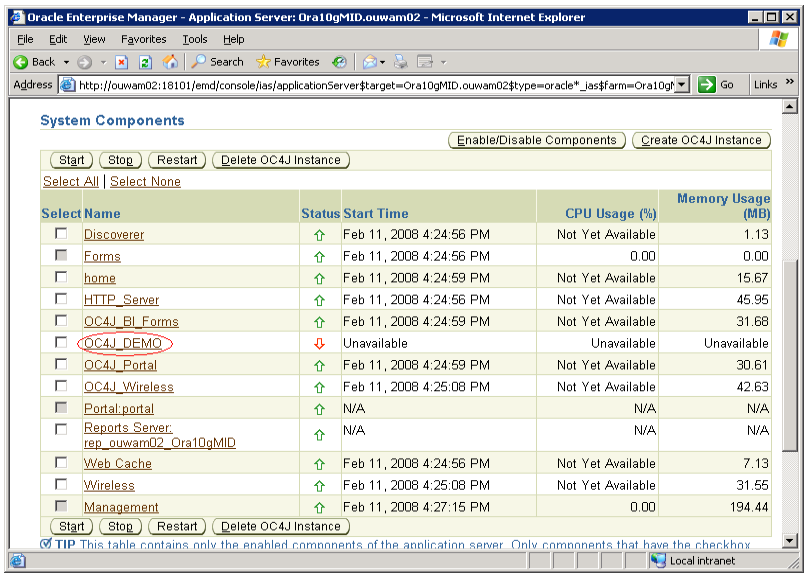


After creation of the OC4J instance a confirmation screen is presented:

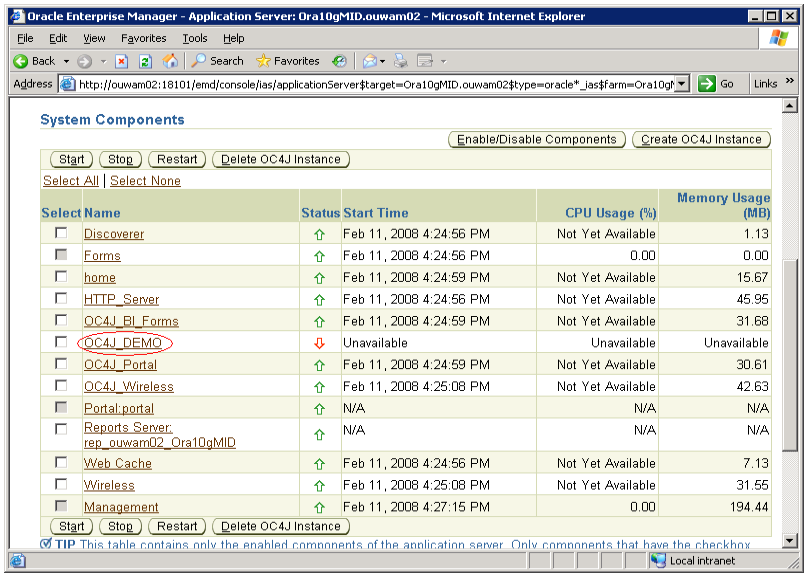


4. Click OK.

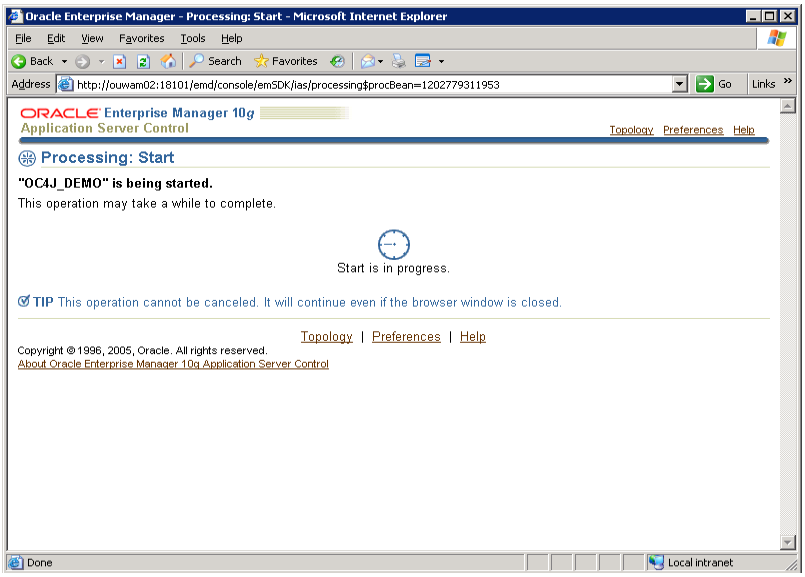
5. On the following screen, click the new OC4J instance link created in the preceding step (circled in this example):



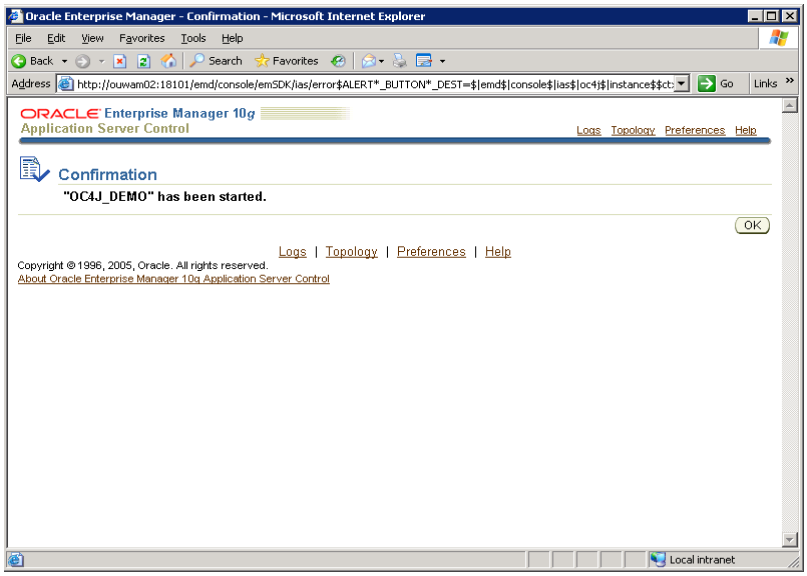
6. In the following screen, click the Start button:



The following screen shows the startup status:

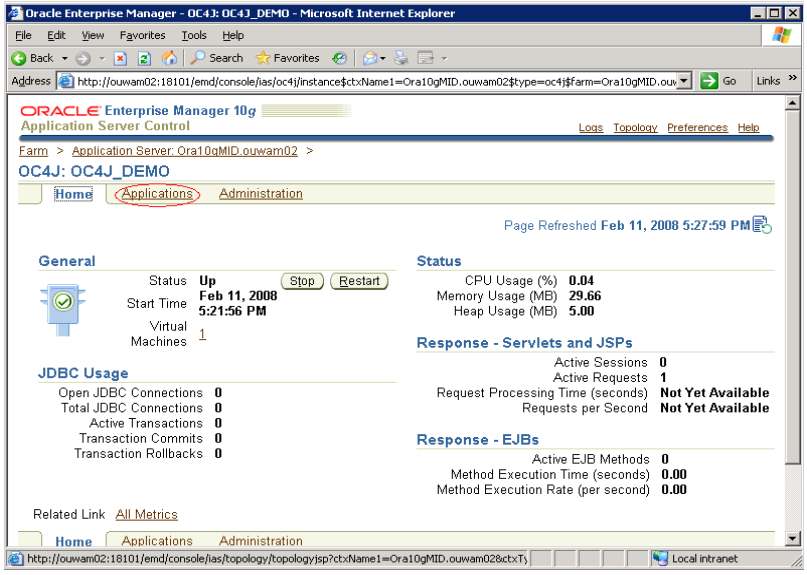


The following screen shows the confirmation status:

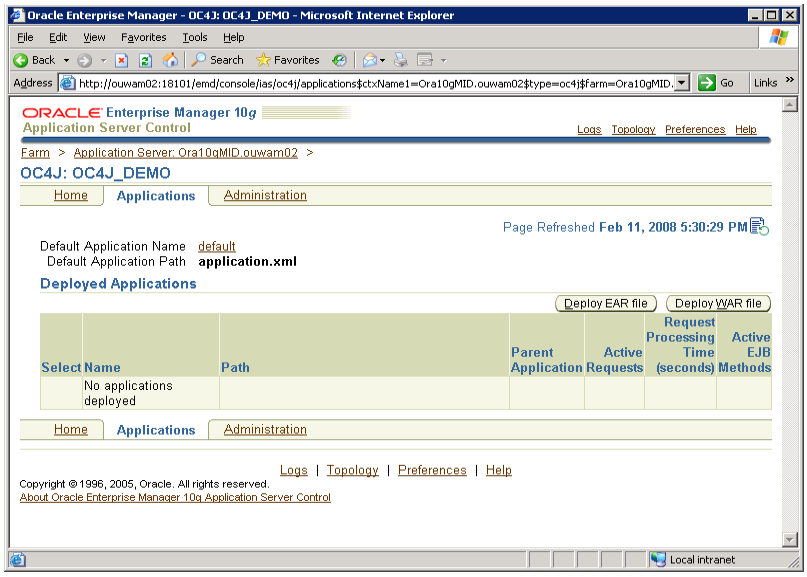


7. Click OK.

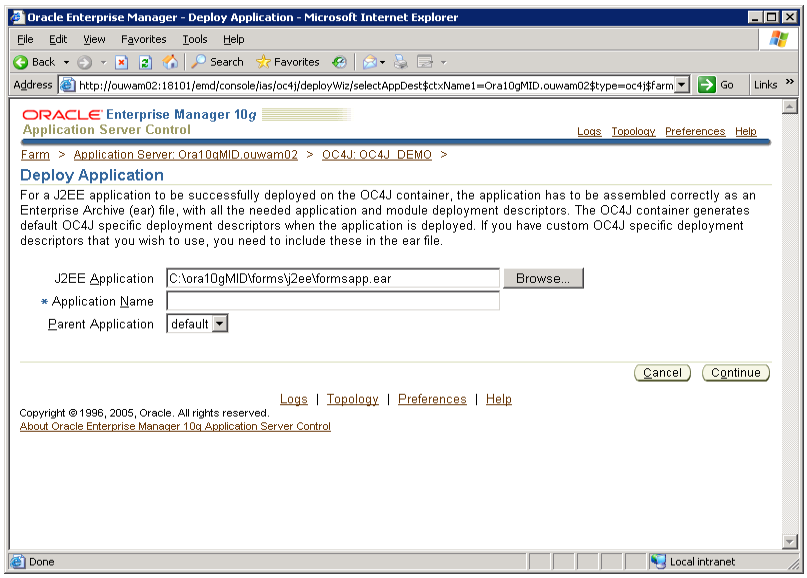
8. On the following screen, click the ‘Applications’ link (circled in this example):



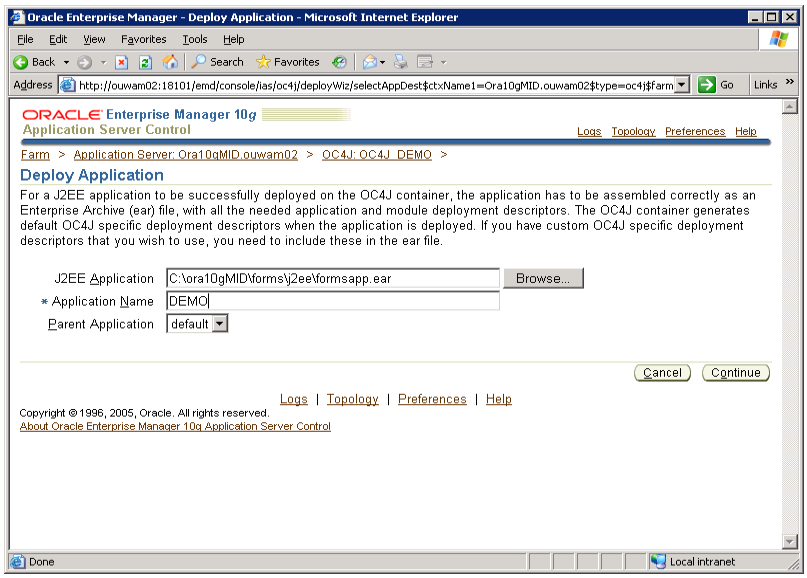
9. On the following screen, click the ‘Deploy EAR file’:



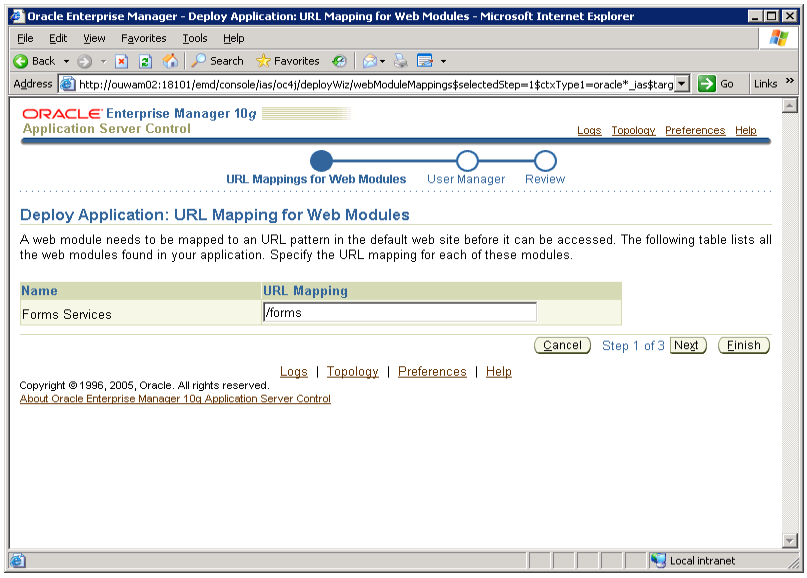
10. On the following screen, click Browse and navigate to the <drive letter>:\ora10gMID\forms\j2ee folder and choose the file ‘formsapp.ear’:



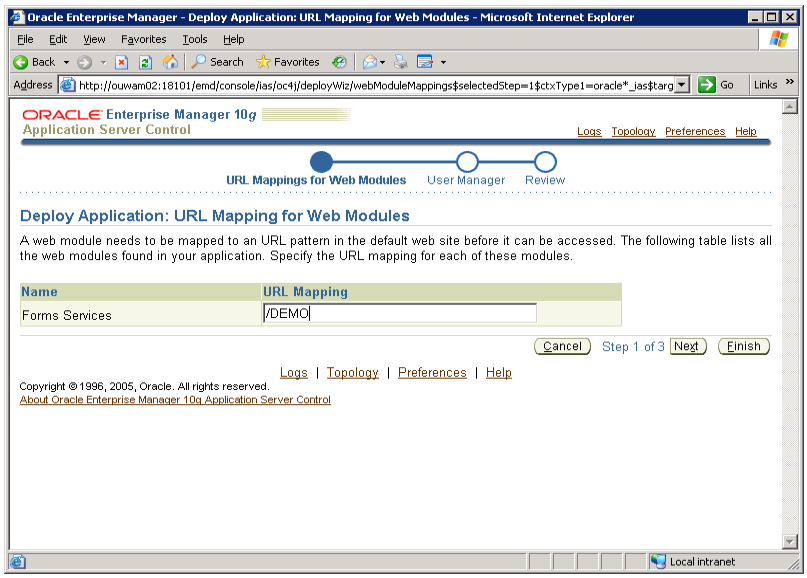
11. Enter in the instance name in the ‘Application Name’ field then click Continue. This value is case sensitive:



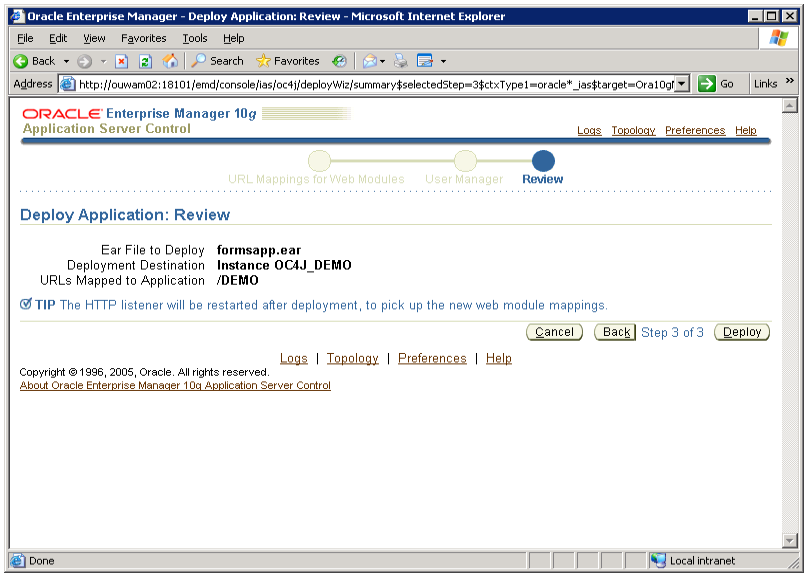
12. On the following screen, change '/forms':



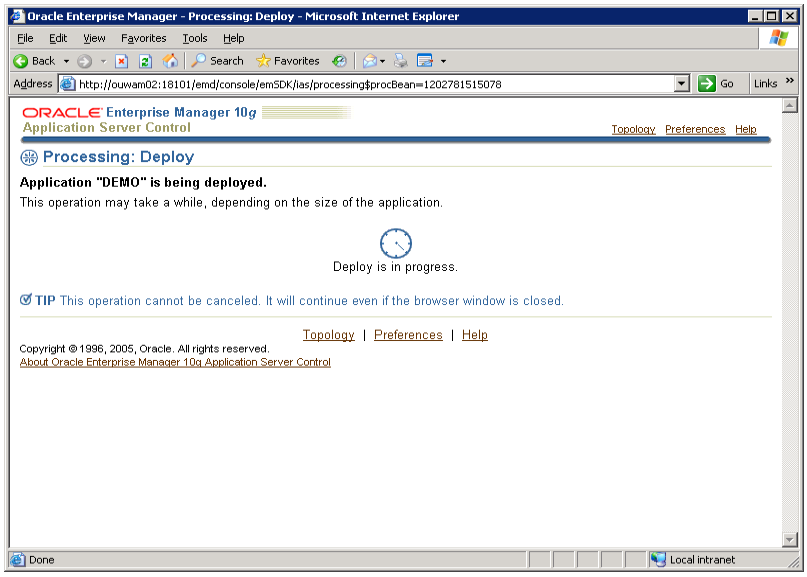
13. To the instance name (keeping the forward slash) that has been defined in previous screens, then click Finish:
    This value is case sensitive:



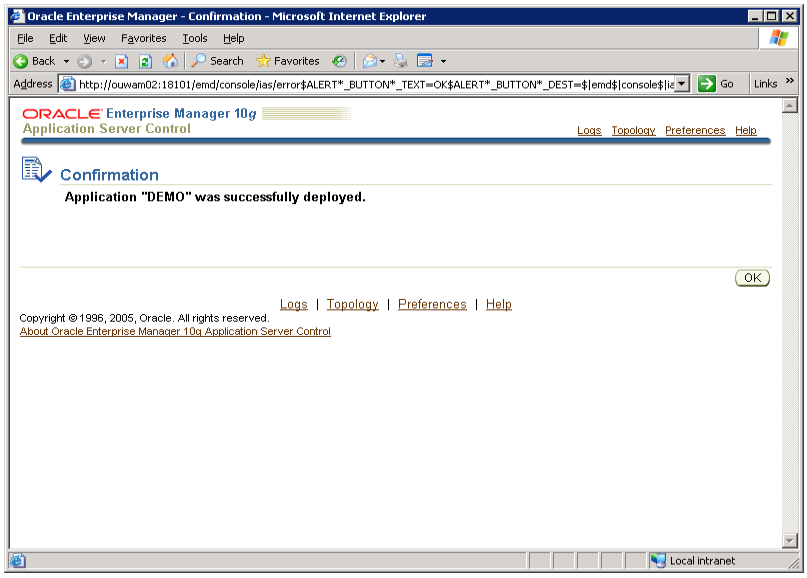
14. On the following screen, click Deploy:



The following screen shows the deployment status:

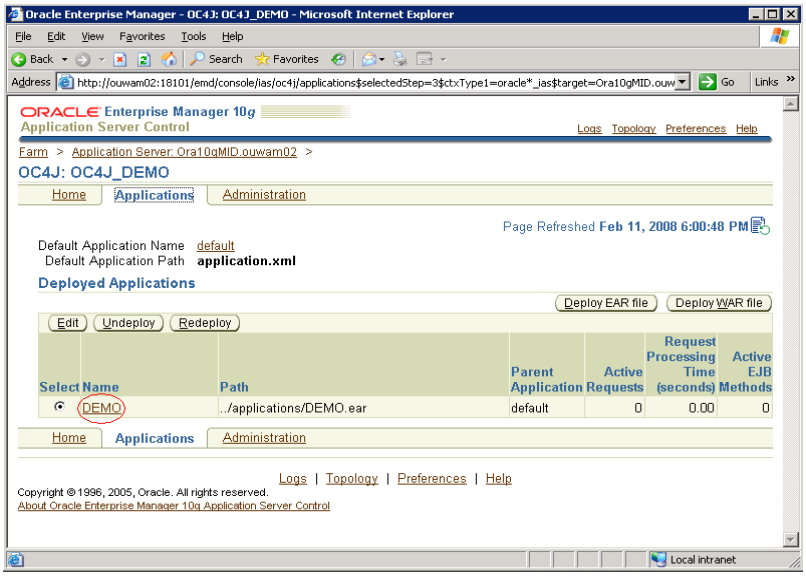


The following screen shows the confirmation status:

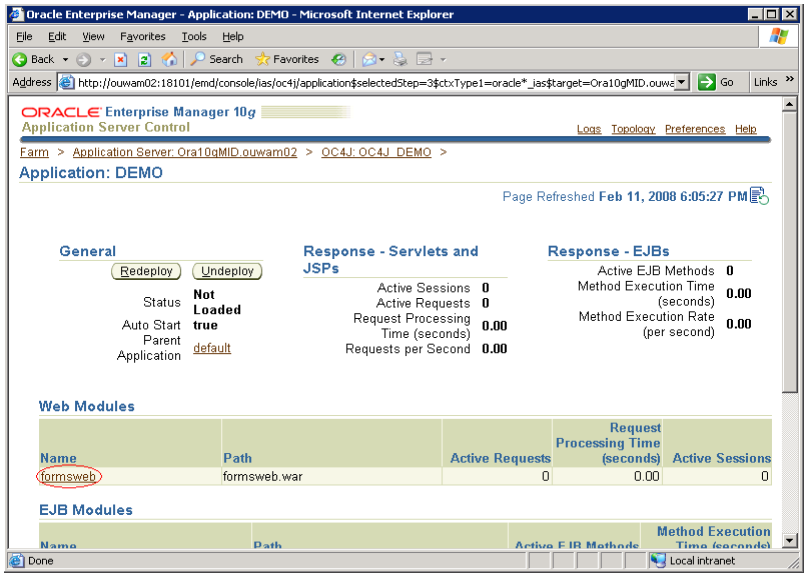


15. Click OK

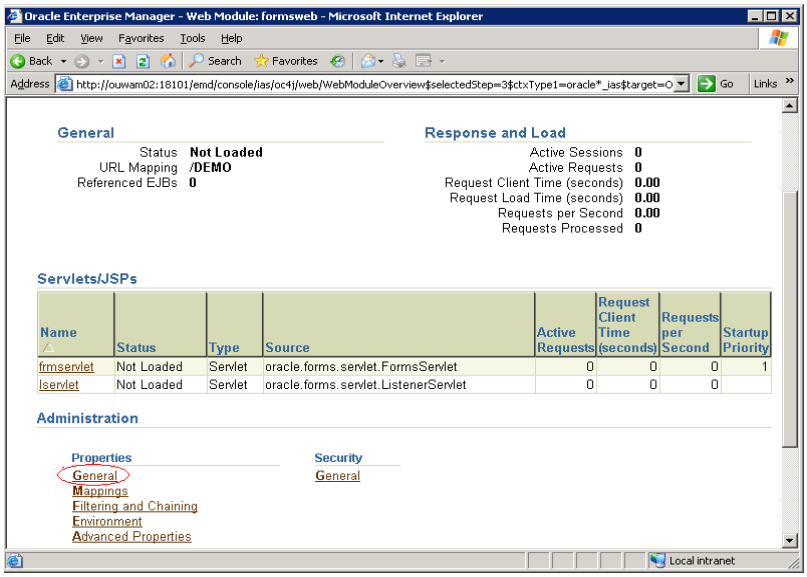
16. On the following screen, click the ‘DEMO’ link (circled in this example):



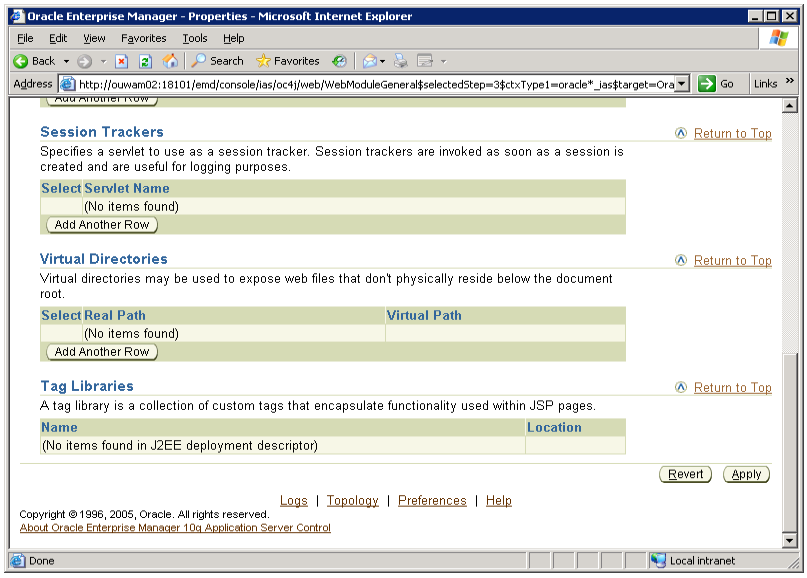
17. On the following screen, click the ‘formsweb’ link (circled in this example):



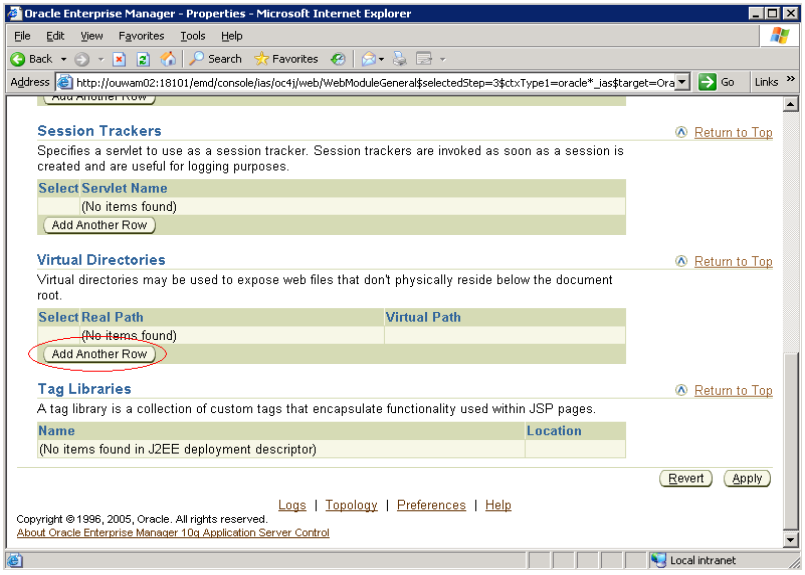
18. On the following screen, scroll down and click the ‘General’ link (circled in this example):



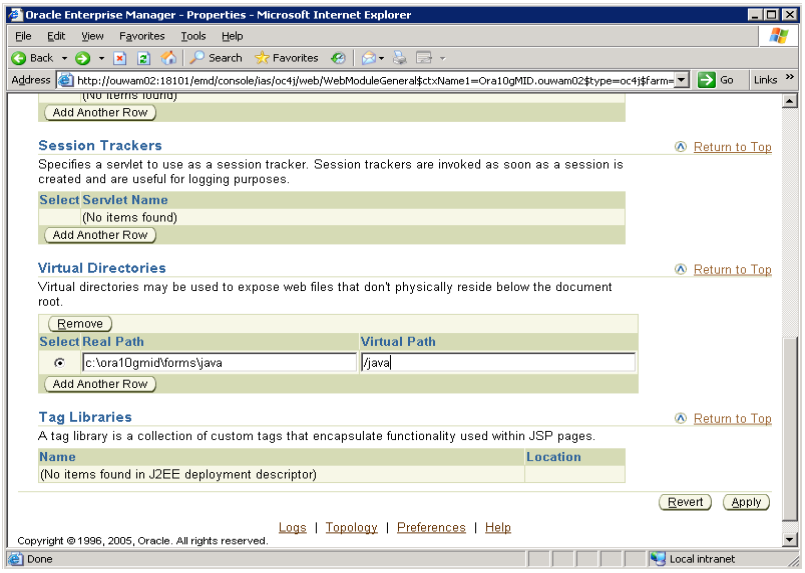
19. On the following screen, scroll down to the section labeled ‘Virtual Directories’:



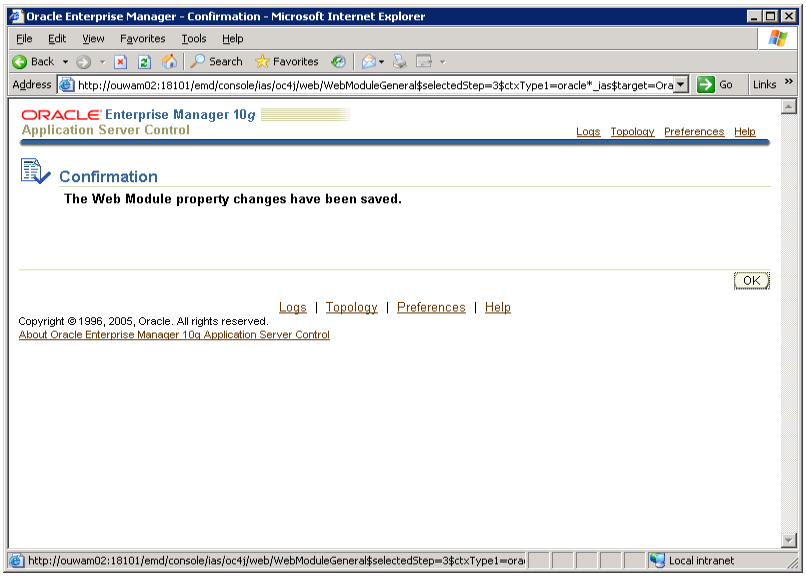
20. Click ‘Add another Row’ (circled in the following example):



21. Add the following values then click Apply.
    Note that the drive letter will change depending on where the Mid-Tier is installed

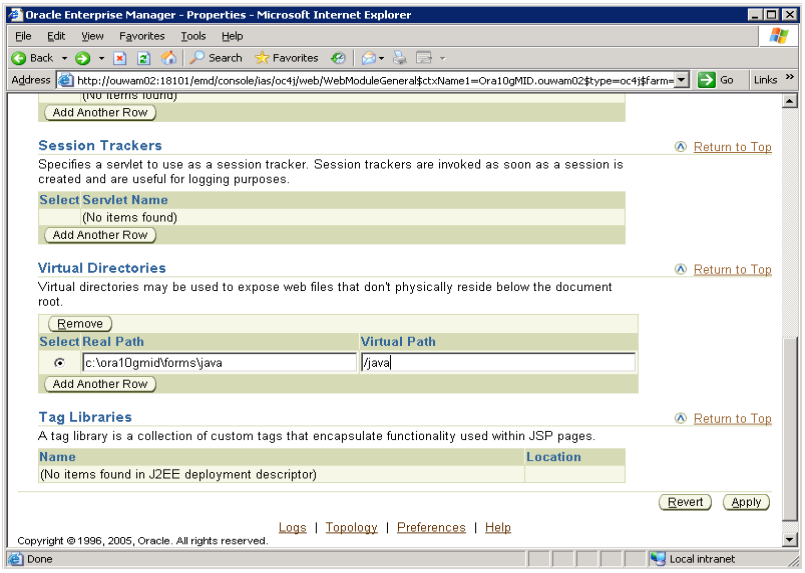


The following screen shows the confirmation status:

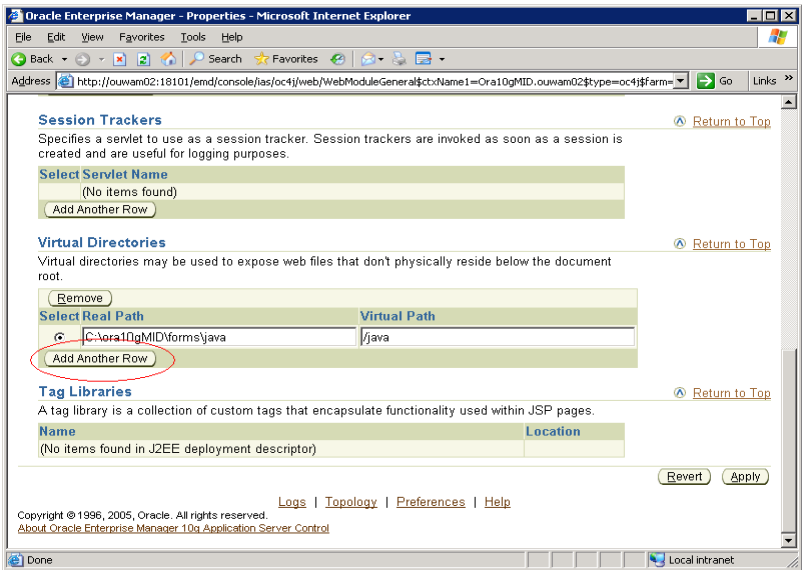


22. Click OK.

23. On the following screen, scroll down to the section labeled ‘Virtual Directories’ (note that the above value is reflected):



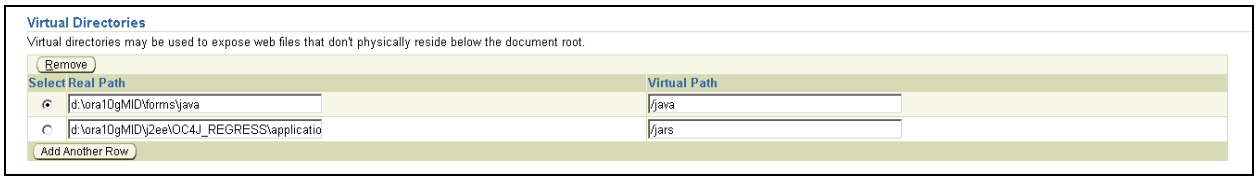
24. Click ‘Add another Row’ (circled in the following example):



25. Add the following value into the ‘Select Real Path’ field.
    Note that the drive letter will change depending on where the Mid-Tier is installed and the instance name is case sensitive. Change DEMO to reflect the instance that is being installed. All other text in the string must not be modified:

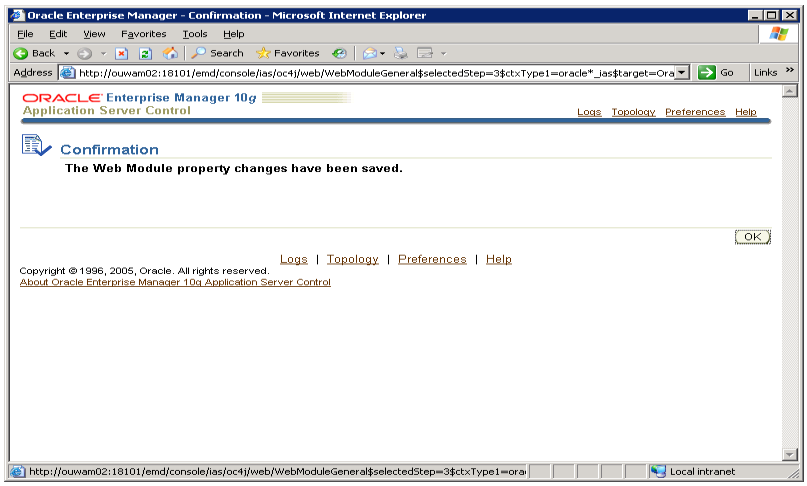
    c:\ora10gmid\j2ee\OC4J_DEMO\applications\DEMOsynergen\DEMOsynergen\jars

    The ‘Virtual Path’ value with be ‘/jars’:



26. Click Apply.

    The following screen shows the confirmation status:



27. Click OK. (restart instance)

Install Oracle Utilities Work and Asset Management

The WAM installation for Windows is delivered via Installshield, which is documented in this section of the guide. Please refer to the section titled "Linux Installation" for specific Linux guidelines associated with this step.

There are 4 phases to install a fully configured Oracle Utilities Work and Asset Management application:

1. Extract, deploy and configure Oracle Utilities Work and Asset Management web archive (WAR) files.
2. Install Application Server components
3. Install Oracle Application Server components
4. Install Database scripts

The install process will require certain directory information. When asked to 'Validate the installation directory …' it is recommended to accept the default folder of "\synergen", and select a drive of your choice. Note: if you wish to choose a drive letter other than 'C:', click the 'Browse' button, and replace the current entry of 'C:' with the drive letter of your choice. If, instead, you choose to navigate to another drive, you will need to type in the folder name '\synergen'. We do not recommend that you install to the root directory of any drive.

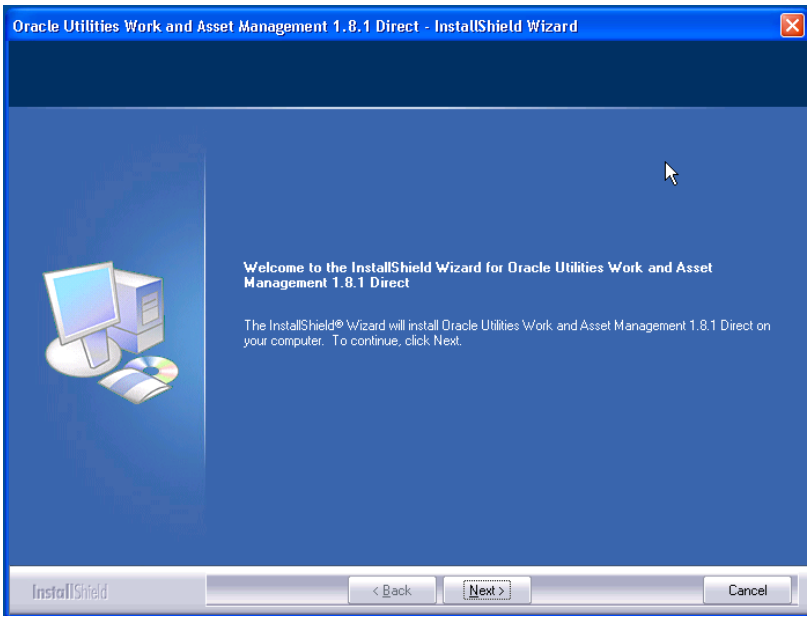
When asked to 'Enter the name of the environment you wish to setup during this installation', the name entered here will be used to create a number of items, including directory folder names, Oracle OC4J instances, database alias pointers, etc. The name must match the instance name that was used when creating the OC4J in the Mid-Tier configuration step.

You **must** use the same 'case' when entering the environment name in all four installation types – for example, you must enter 'DEMO' in all four installations, and not mix 'DEMO', demo and Demo – otherwise, you will encounter problems in the application.

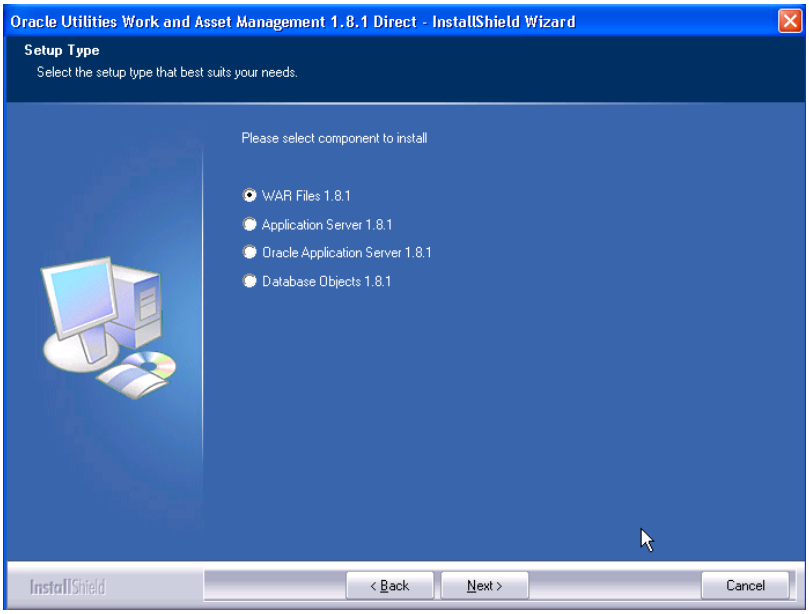
WAR File Extraction

These phases are delivered via an Installshield program.

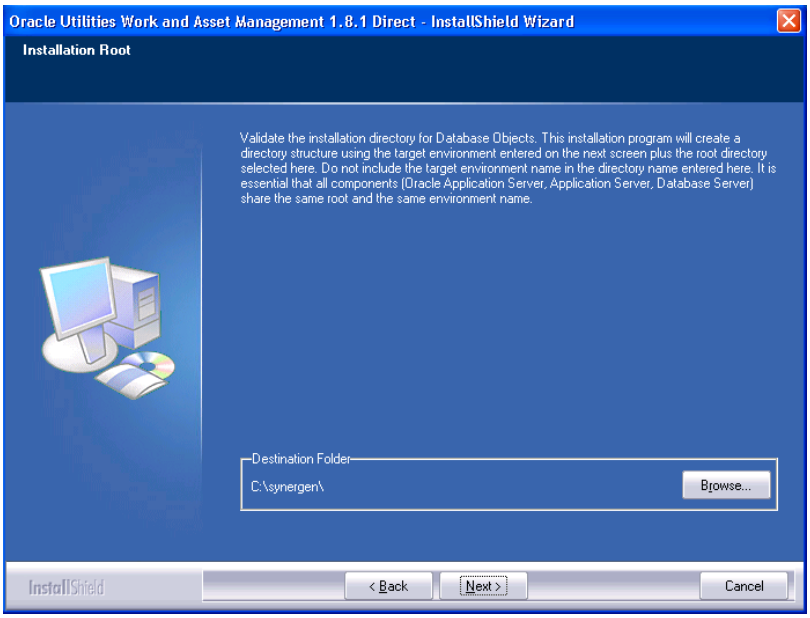
1. Navigate to where the Installshield program is saved then click setup.exe and click next from the Welcome screen:



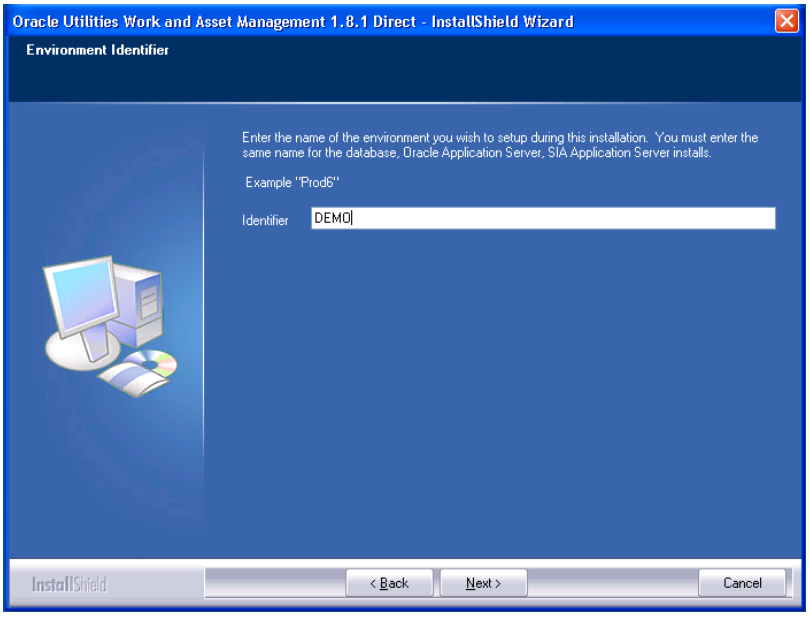
2. On the following screen choose ‘WAR Files 1.9’ and click Next:



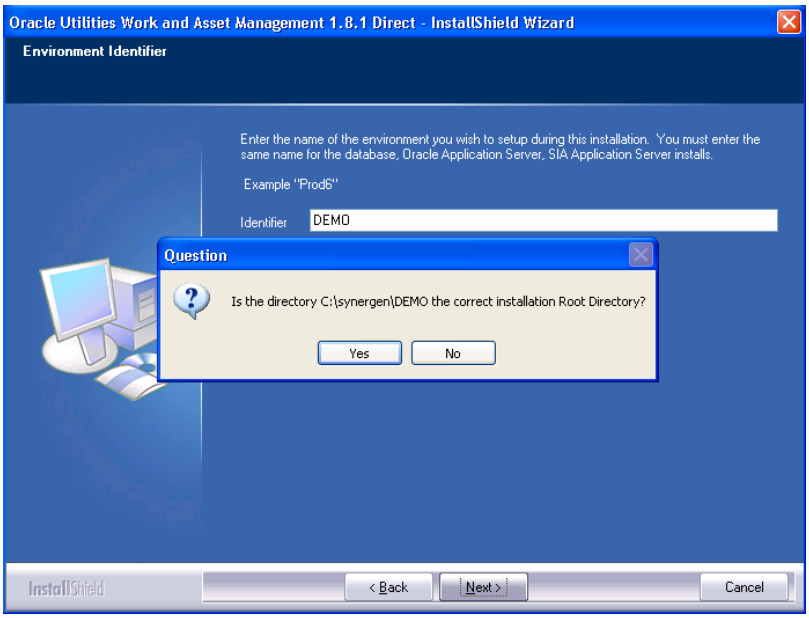
3. On the following screen, modify as necessary the drive letter where the WAR files are to be created, then click Next:



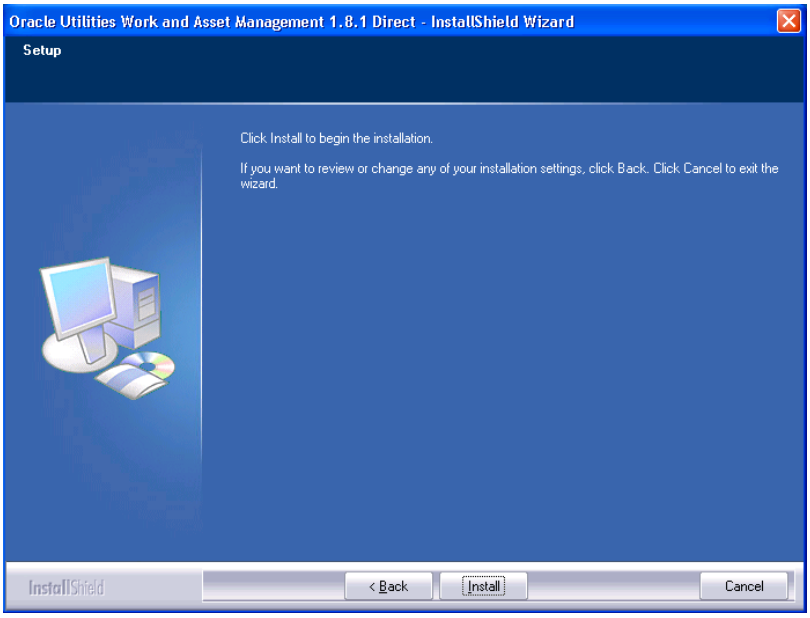
4. On the following screen, enter the instance that was defined when creating the OC4J instance in the Mid-Tier configuration, then click Next:
   This value is case sensitive.



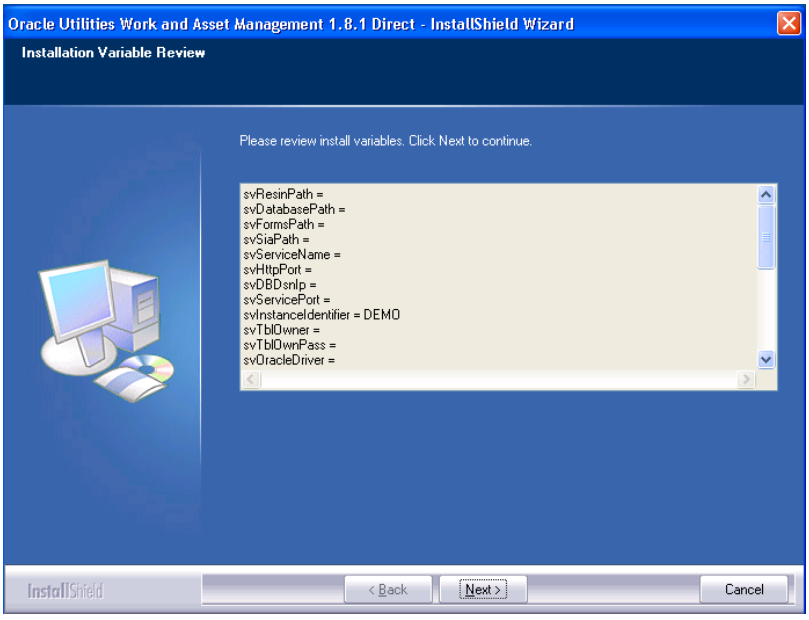
5. Click Yes if the installation directory is correct (answering no will place you at the current screen):



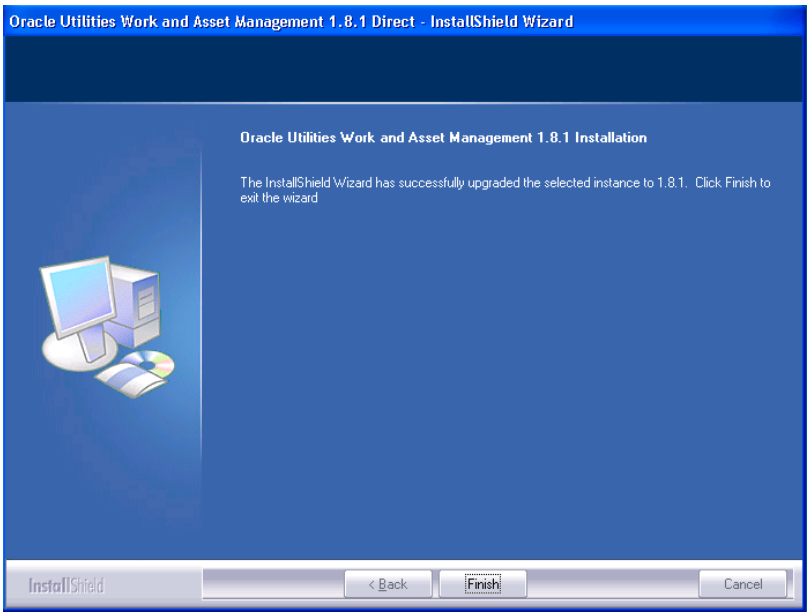
6. Click Install to start the extraction of the WAR files:



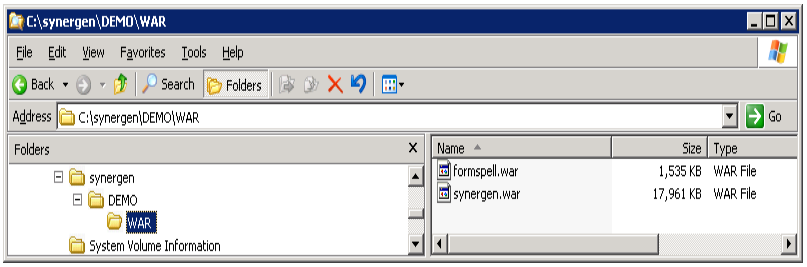
After the extraction is complete the following review screen is presented:



7. Click Next then click Finish on the screen that follows:



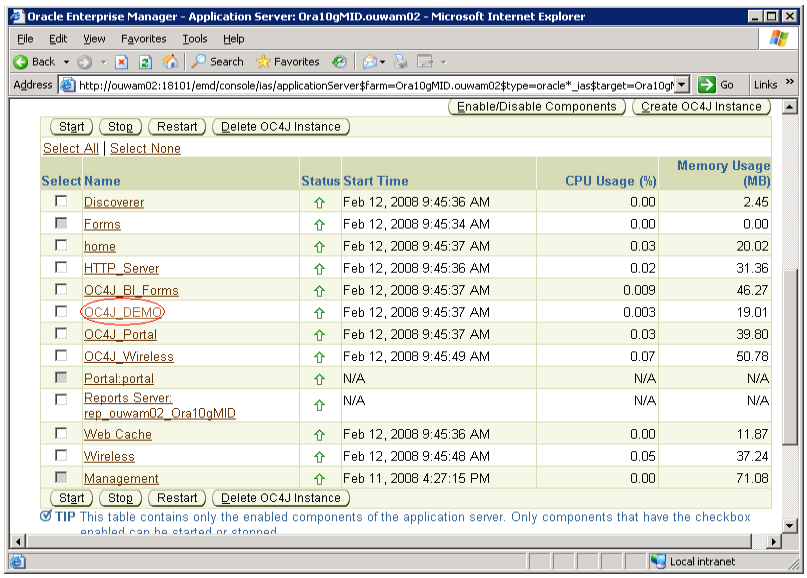
The following directory structure was created after completing the WAR installation step:



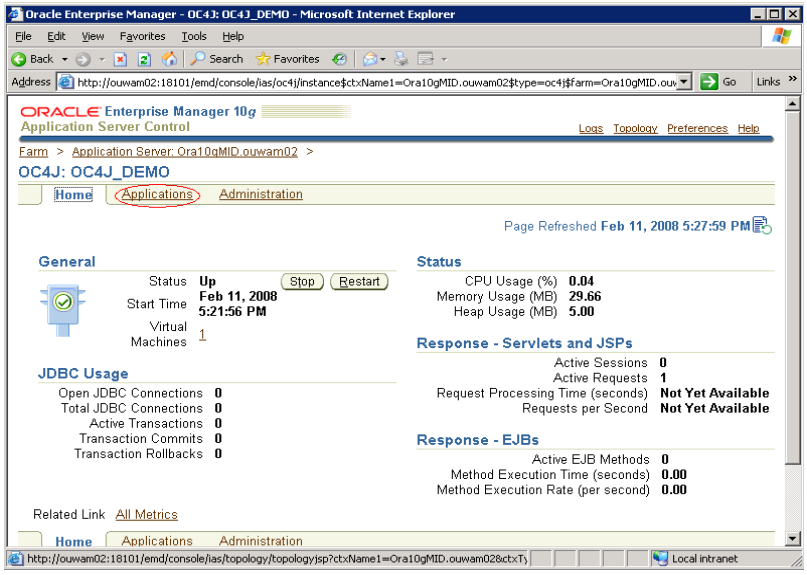
WAR File Configuration

To complete the configuration of the WAR files, log into the Oracle Application Server 10g Enterprise Management console and chose the Mid-Tier link.

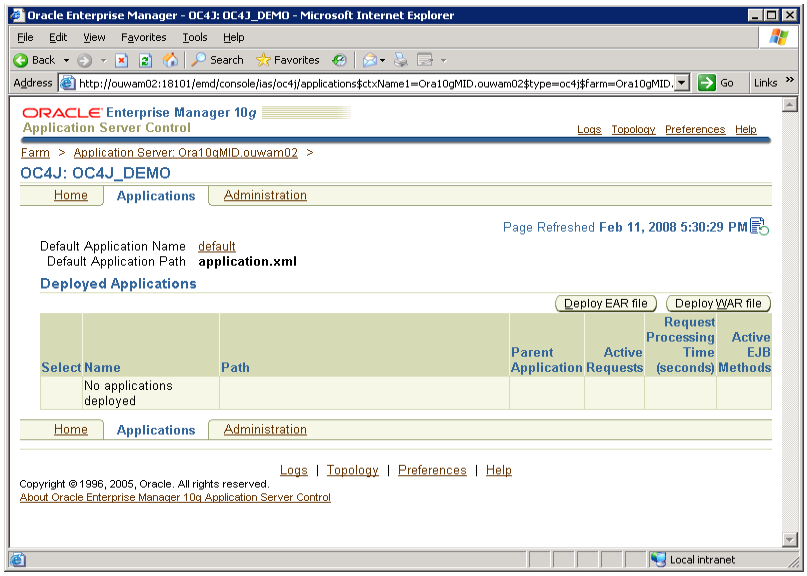
1. On the following screen, click the OC4J instance link that the WAR files will be applied against (circled in this example):



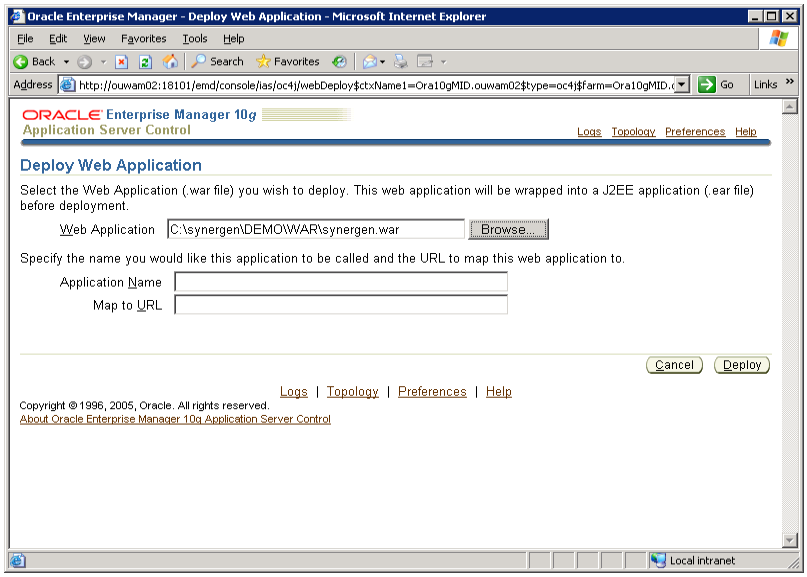
2. On the following screen, click the 'Applications' link (circled in this example):



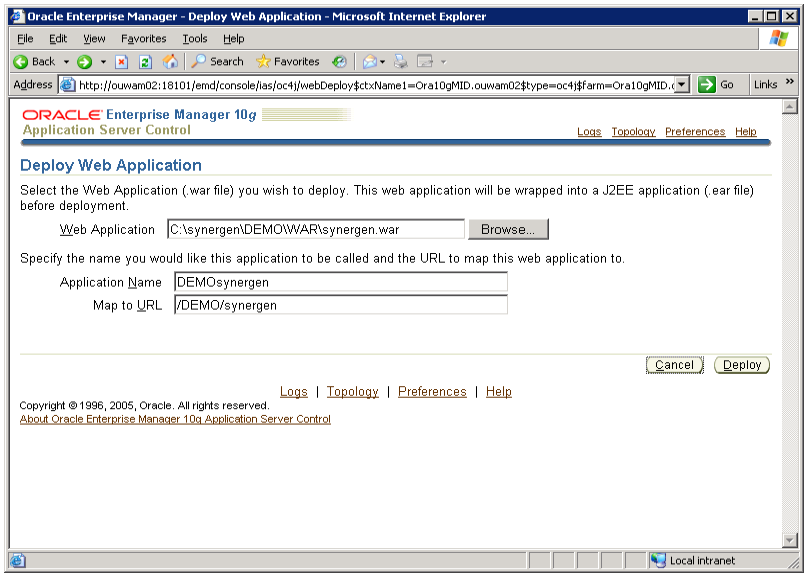
3. On the following screen, click ‘Deploy WAR file’:



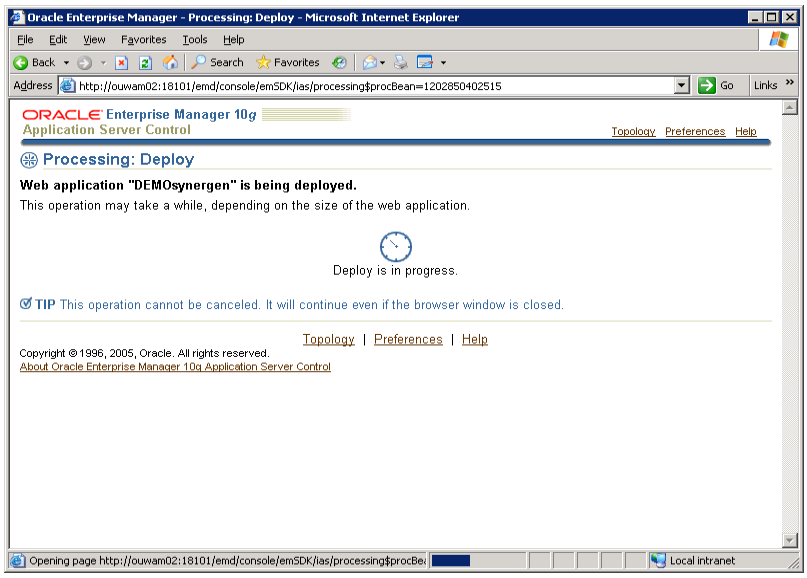
4. On the following screen, browse to where the synergen.war file is stored:



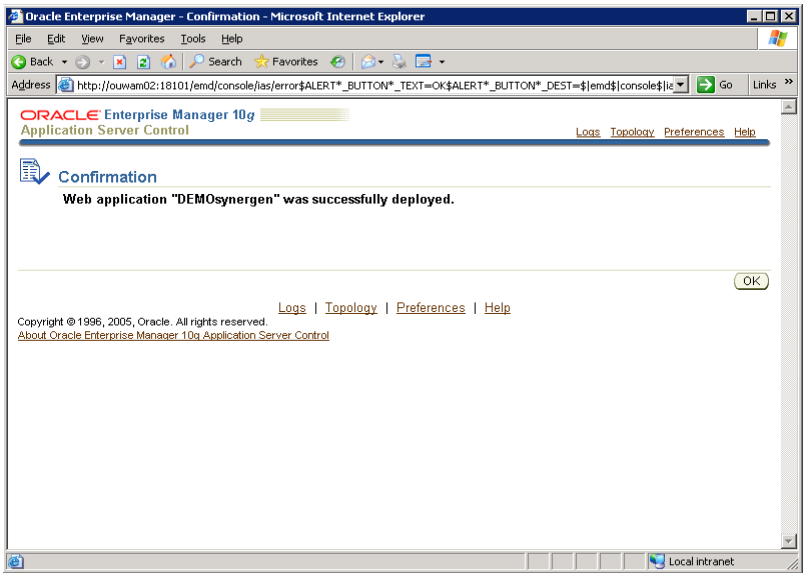
5. In the ‘Application Name’, enter the instance name prepended to ‘synergen’. In the ‘Map to URL’ field, enter a ‘/’+instance name+’/’+’synergen’ then click Deploy.
   The instance name is case sensitive.



The following screen shows the deployment status:

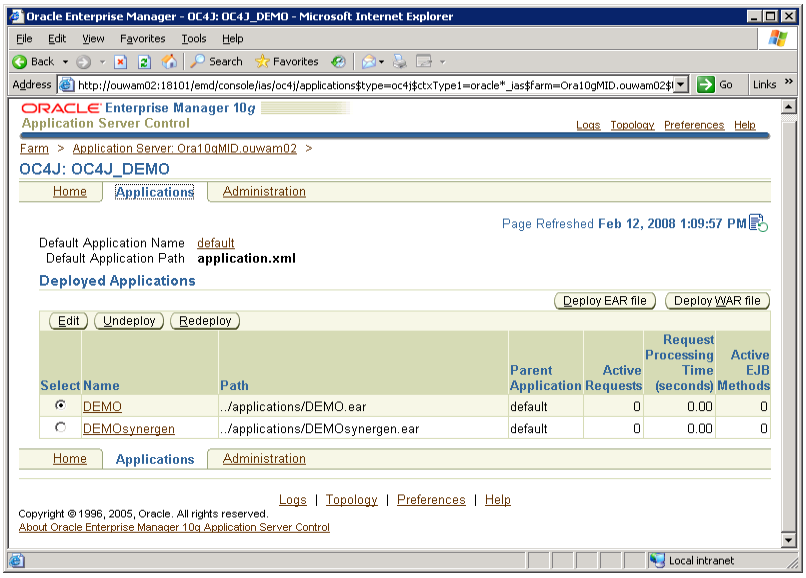


The following screen shows the confirmation status:

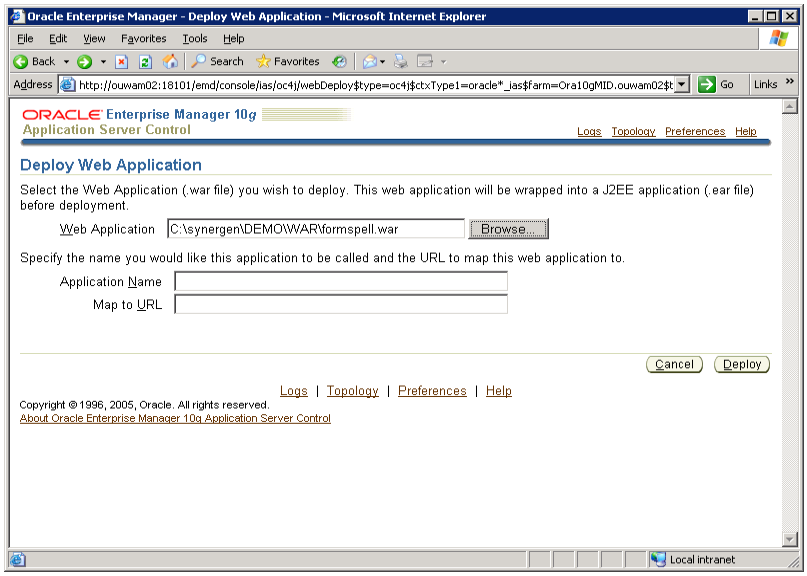


6. Click OK.

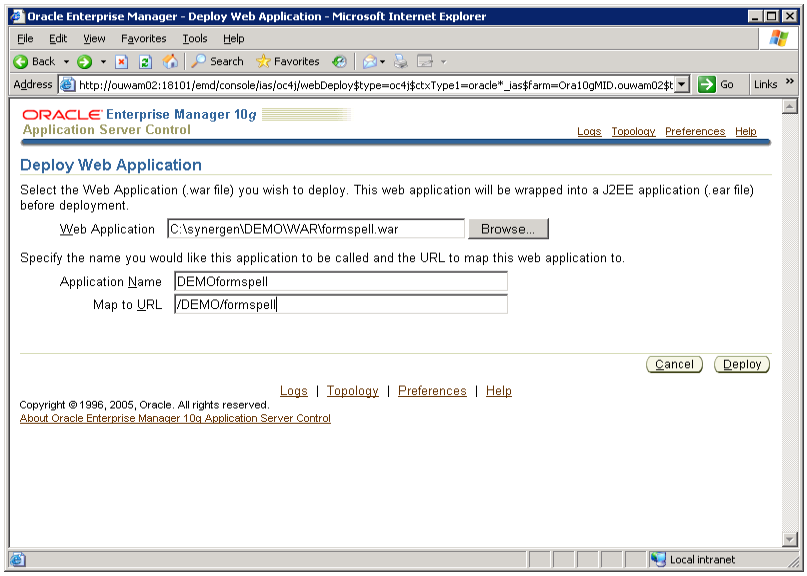
7. On the following screen, click ‘Deploy WAR file’:



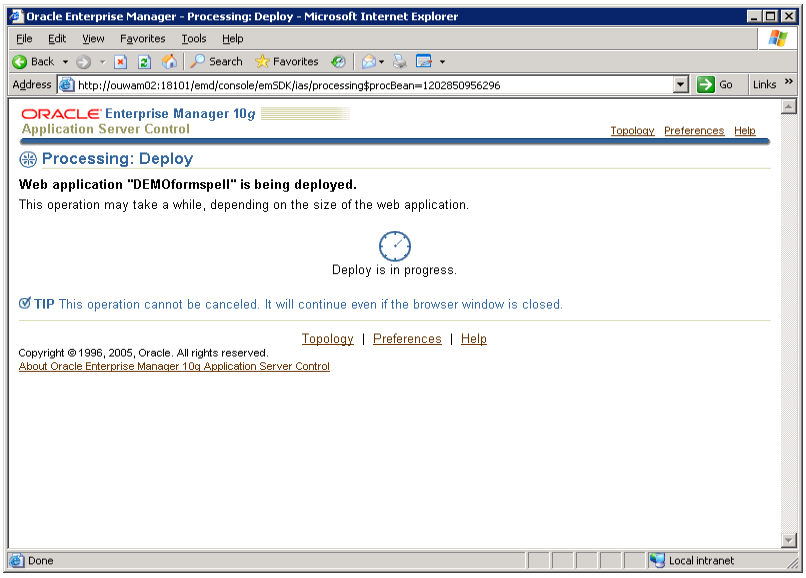
8. On the following screen, browse to where the formspell.war file is stored:



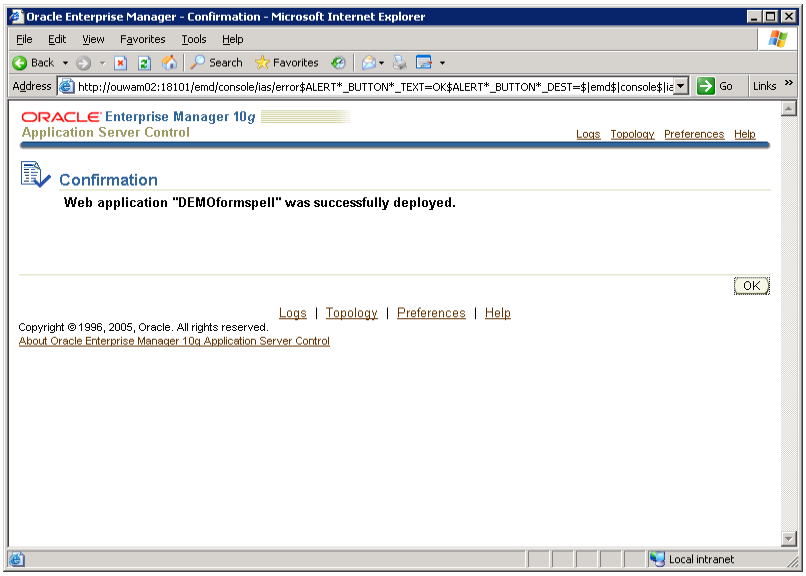
9. In the 'Application Name', enter the instance prepended to 'formspell. In the 'Map to URL' field, enter a '/'+instance name+'/'+'formspell' then click Deploy.
The instance name is case sensitive.



The following screen shows the deployment status:

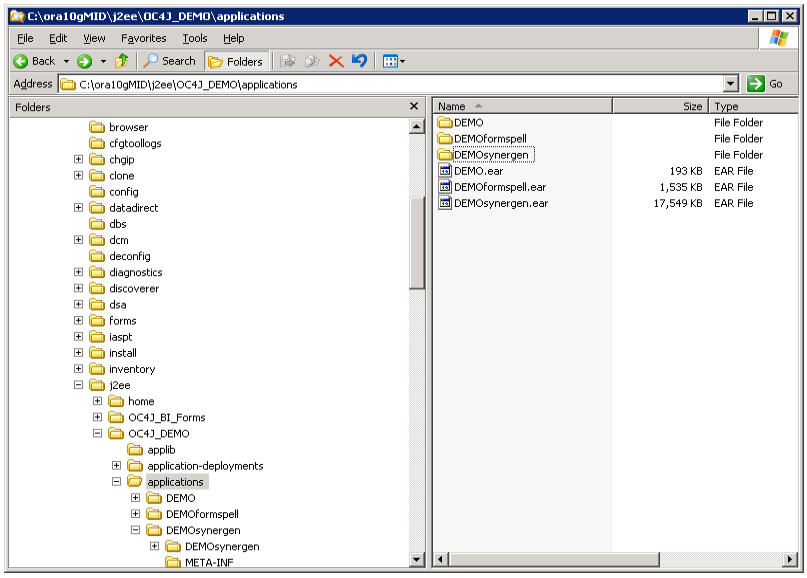


The following screen shows the confirmation status:



10. Click OK.

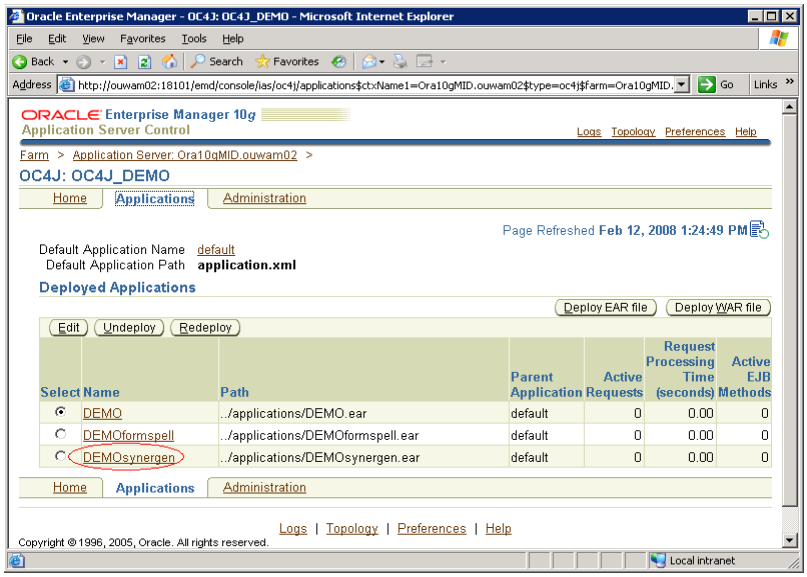
At this point, the following folder structure has been deployed to the Mid-Tier directory for the instance:



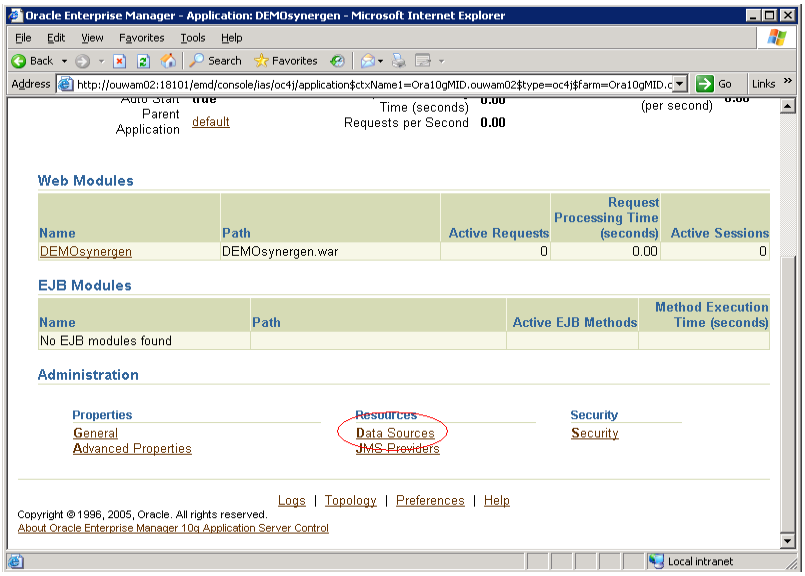
Data Source Configuration

Additional changes to the deployed web application need to be made. These changes include defining a datasource to point to the database and adding a classpath setting. To make these changes:

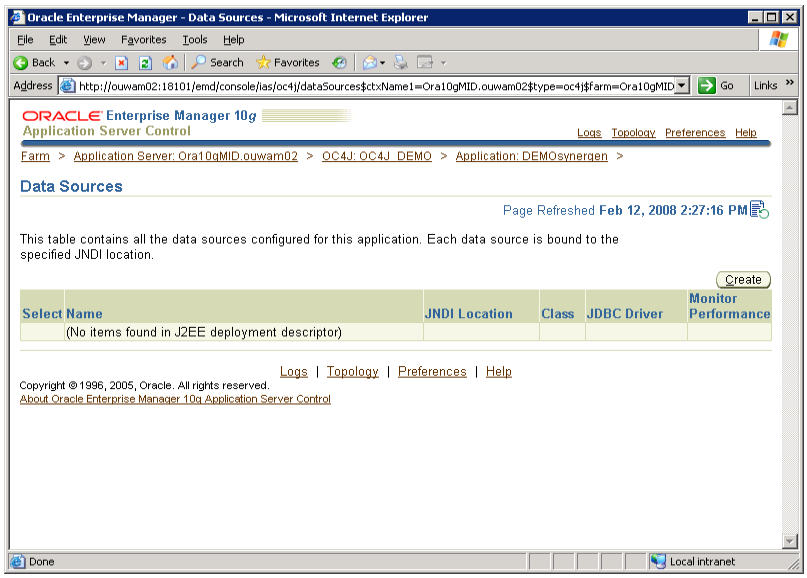
1. Click the 'synergen' link (circled in this example):



2. On the following screen, scroll down and click the ‘Data Sources’ link (circled in this example):



3. On the following screen, click Create:



4. On the following screen fill in the fields as indicated below with attention to the following guidelines:

   Make a note of the database name in the JDBC URL field as this needs to match a field value in a subsequent step.

   Enter in the values exactly as noted including the symbols: ‘:’, ‘@’.

   Change the port value from 1521 to match the port value on the database installation environment.

   Name = synergen

   Data Source Class = com.evermind.sql.DriverManagerDataSource

JDBC URL = jdbc:oracle:thin:@<database server name>:1521:<database name>

JDBC Driver = oracle.jdbc.driver.OracleDriver

Schema = SYNERGEN

Username = XADMIN_SYNERGEN

Use Cleartext Password (the password is for the XADMIN_ user)

Location = jdbc/synergenLo

Transactional (XA) Location=jdbc/synergenXA

EJB Location=jdbc/synergen

Connection Retry Interval (seconds)=2

Max Connection Attempts=4

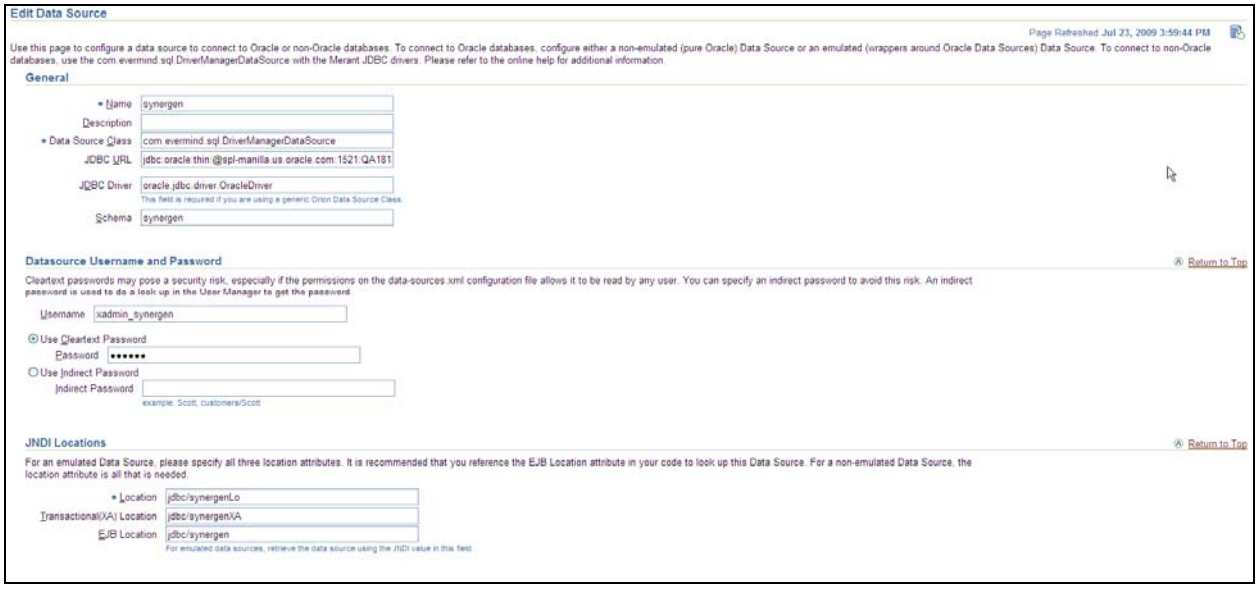
Cached Connection Inactivity Timeout (seconds)=900

Maximum Open Connections=60

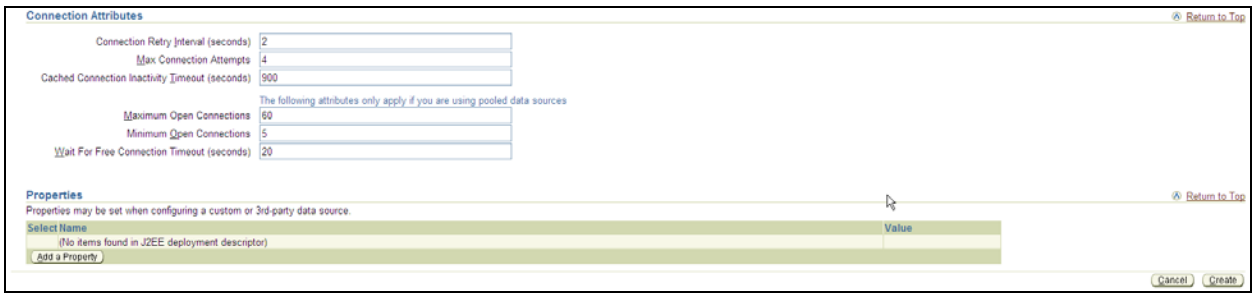
Minimum Open Connections=5

Wait For Free Connections Timeout (seconds)=20

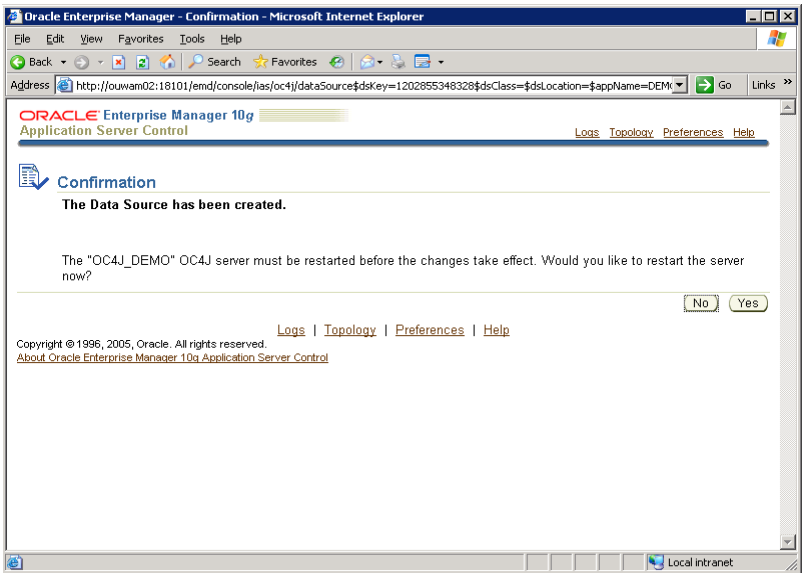
The following screen reflects the field values:



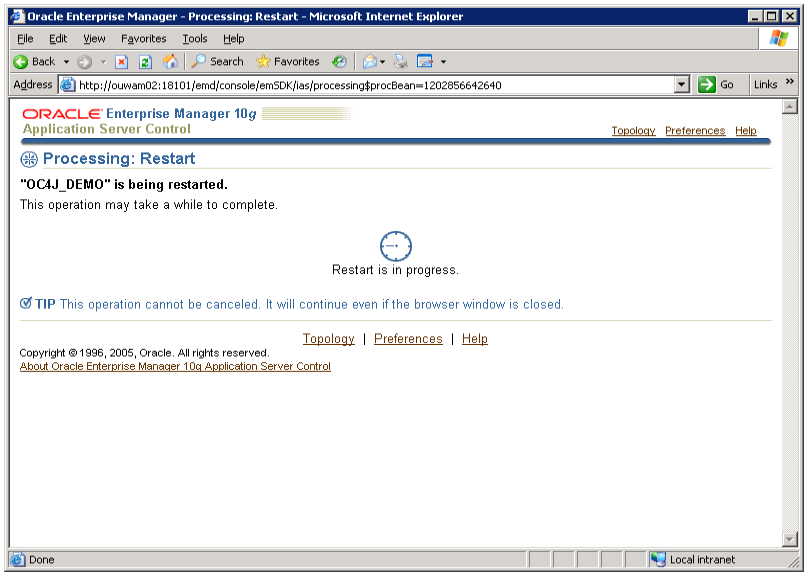
5. On the same screen, scroll down and click Create.



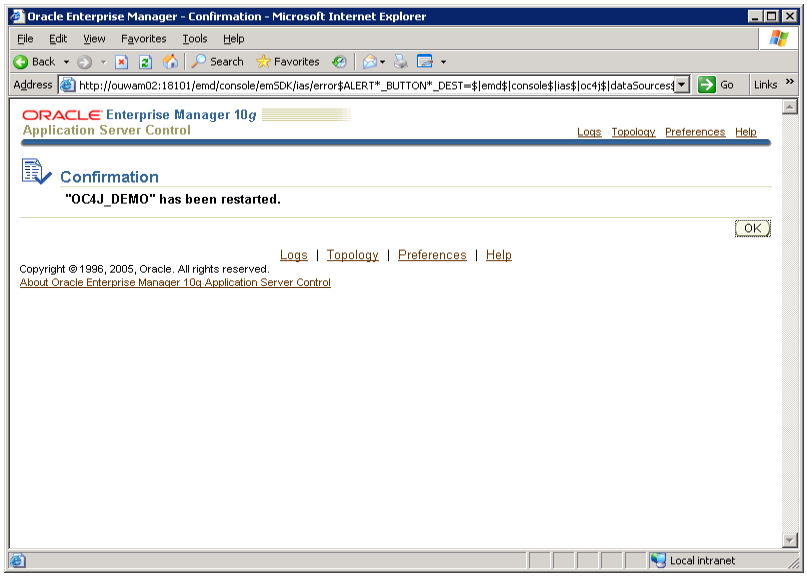
6. On the following confirmation screen, click Yes to restart the Mid-Tier:



The following screen shows the restart status:



The following screen shows the confirmation status:



7. Click OK.

Data Source for Password Reset Functionality

In order to support the password reset functionality, a new data source needs to be added. Follow the same steps as above to create a new datasource using the following values with attention to the following guidelines:

Make a note of the database name in the JDBC URL field as this needs to match a field value in a subsequent step.

Enter in the values exactly as noted including the symbols: ':', '@'.

Change the port value from 1521 to match the port value on the database installation environment.

Name = alterrolesynergen

Data Source Class = com.evermind.sql.DriverManagerDataSource

JDBC URL = jdbc:oracle:thin:@<database server name>:1521:<database name>

JDBC Driver = oracle.jdbc.driver.OracleDriver

Schema = SYNERGEN

Username = [password reset user name]

Use Cleartext Password with the password being associated with the password reset user

Location = jdbc/alterrolesynergenLo

Transactional (XA) Location=jdbc/alterrolesynergenXA

EJB Location=jdbc/alterrolesynergen

Connection Retry Interval (seconds) =2

Max Connection Attempts=4

Cached Connection Inactivity Timeout (seconds) =900

Maximum Open Connections=60

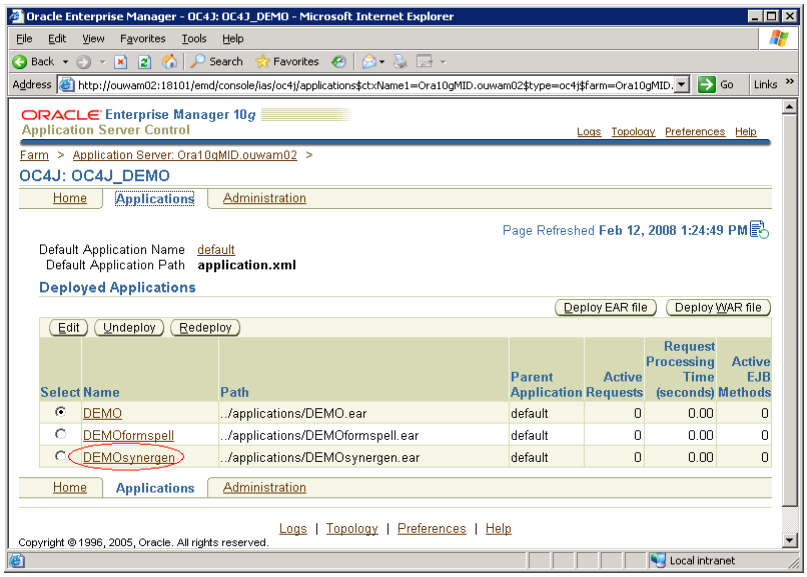
Minimum Open Connections=5

Wait For Free Connections Timeout (seconds) =20

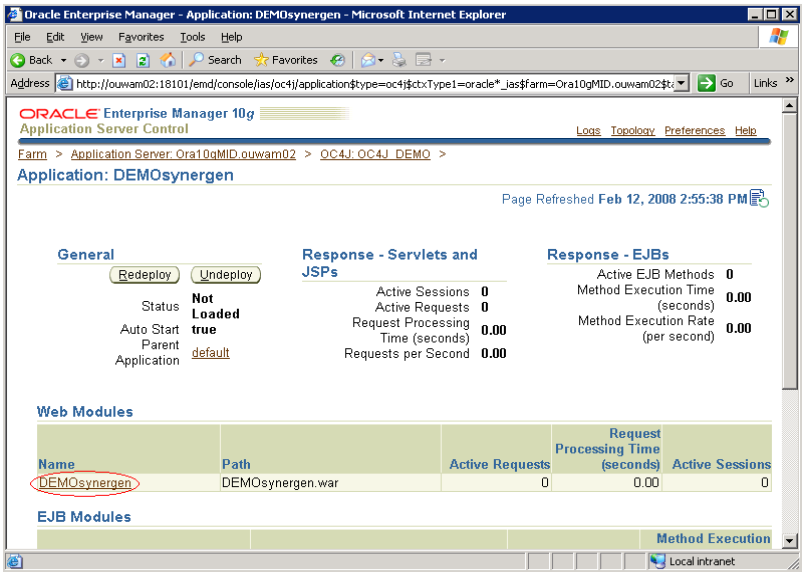
Class Paths Configuration

Configure the class paths according to the following steps:

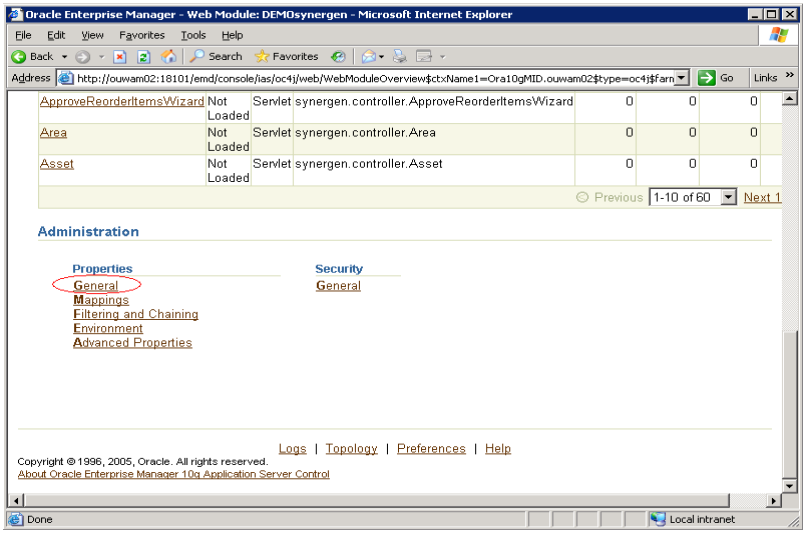
1. Navigate back to the equivalent following screen and click the 'synergen' link (circled in this example):



2. On the following screen, click the ‘synergen’ link (circled in this example):



3. In the following screen, scroll down until the ‘Administration’ section is visible. Click the ‘General’ link (circled in this example):

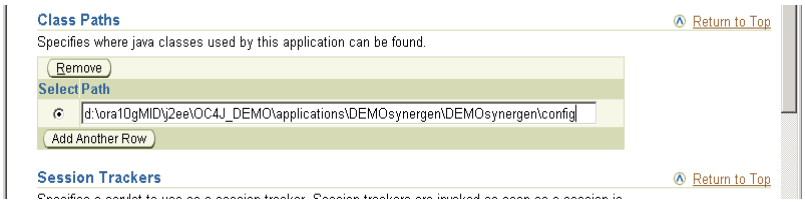


4. On the following screen, scroll down until the ‘Class Paths’ section is visible. Click ‘Add Another Row’ and enter the following value:

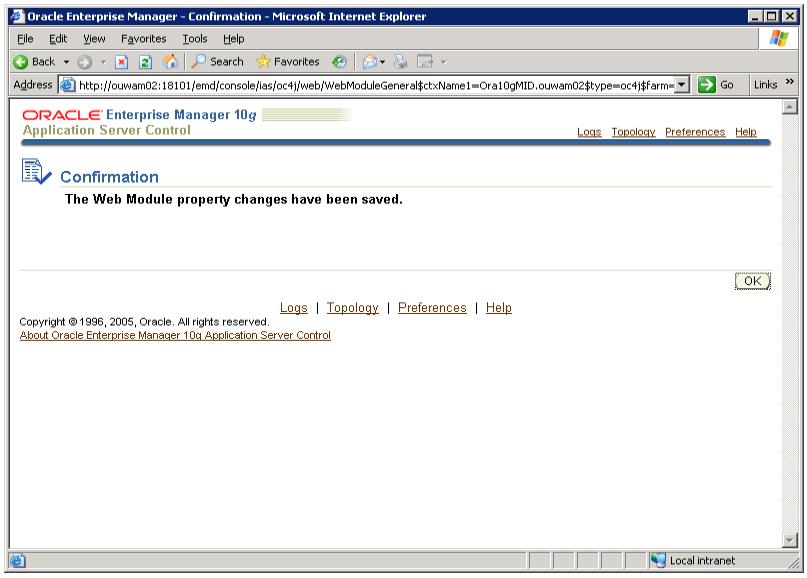
   <driveletter>:\ora10gMID\j2ee\OC4J_<ApplicationName>\applications\<ApplicationName>synergen\<ApplicationName>synergen\config

   For example:

   d:\ora10gMID\j2ee\OC4J_DEMO\applications\DEMOsynergen\DEMOsynergen\config



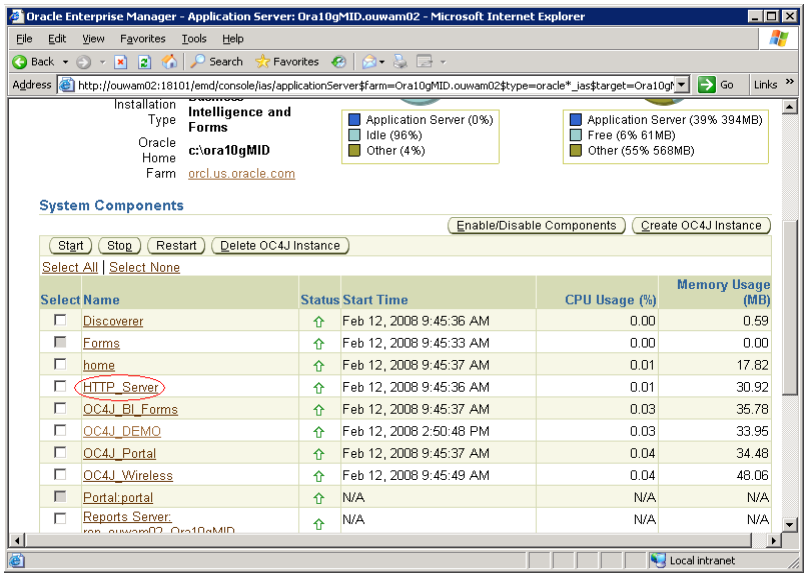
5. Scroll down and click Apply at the bottom of the screen.
6. Click OK on the confirmation screen:



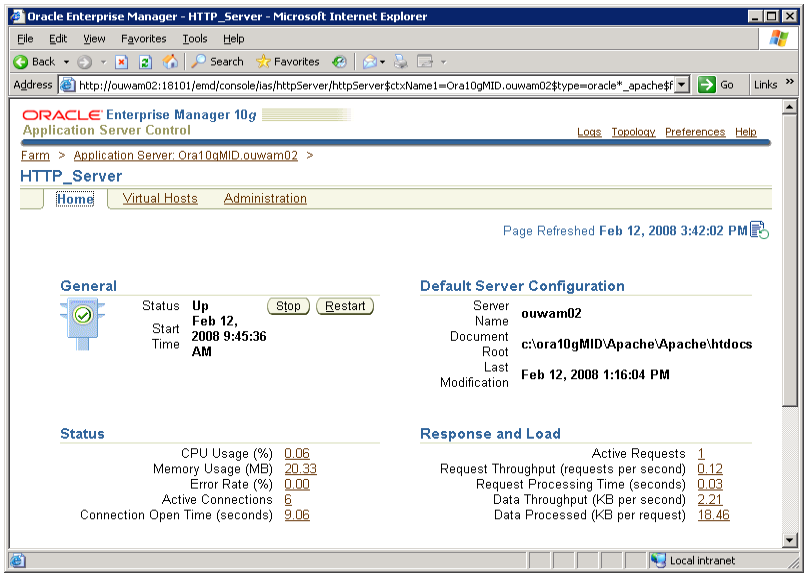
Oracle HTTP Server Configuration

Configure the HTTP Server according to the following steps:

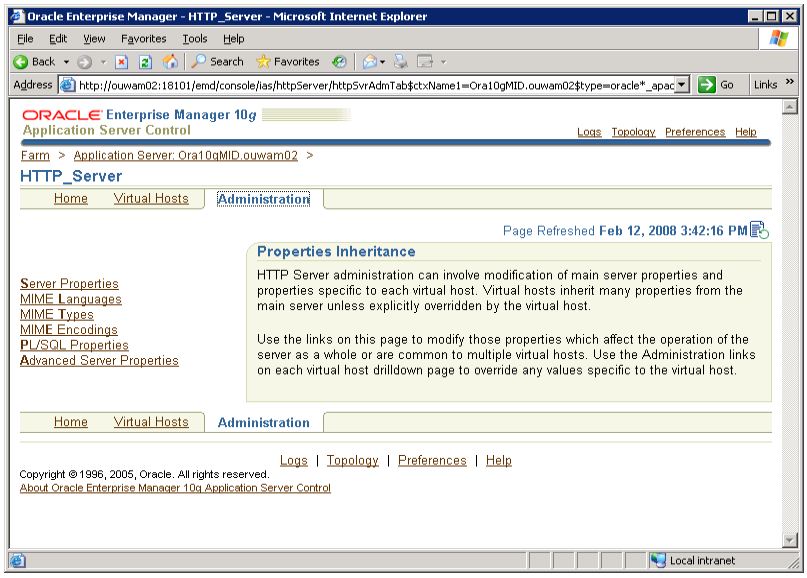
1. Navigate to the main Mid-Tier screen and click the 'HTTP_Server' link (circled in this example):



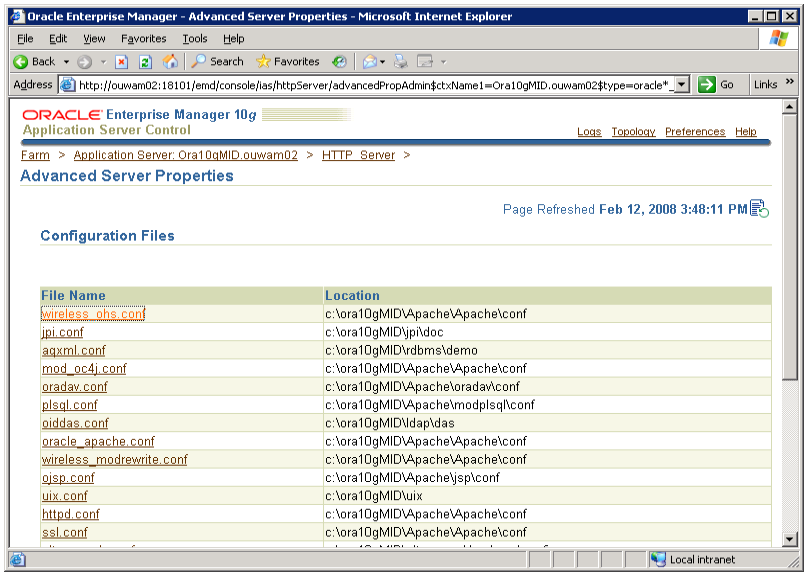
2. On the following screen, click the 'Administration' link:



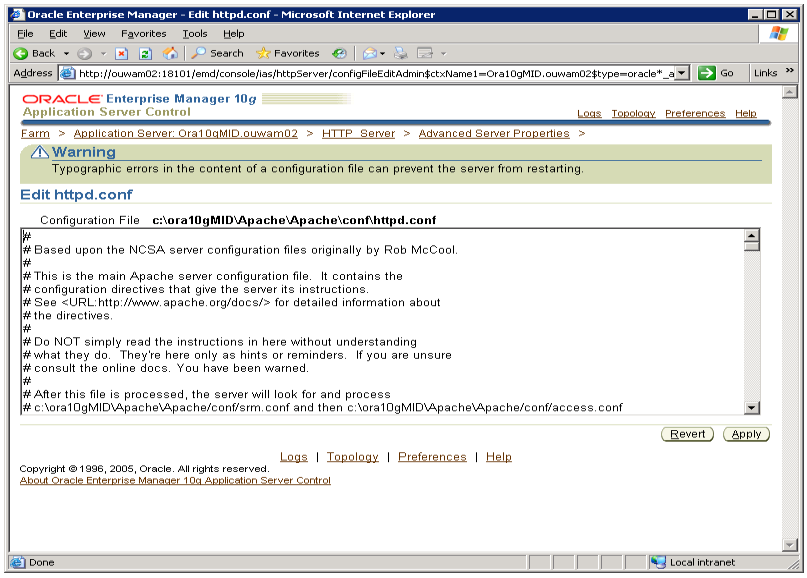
3. On the following screen, click the ‘Advanced Server Properties’ link:



4. On the following screen, click the ‘httpd.conf’ link:



An edit screen for the httpd.conf file will be presented:



5. While in edit mode:

   Search for and change:

   UseCanonicalName On

   To:

   UseCanonicalName Off

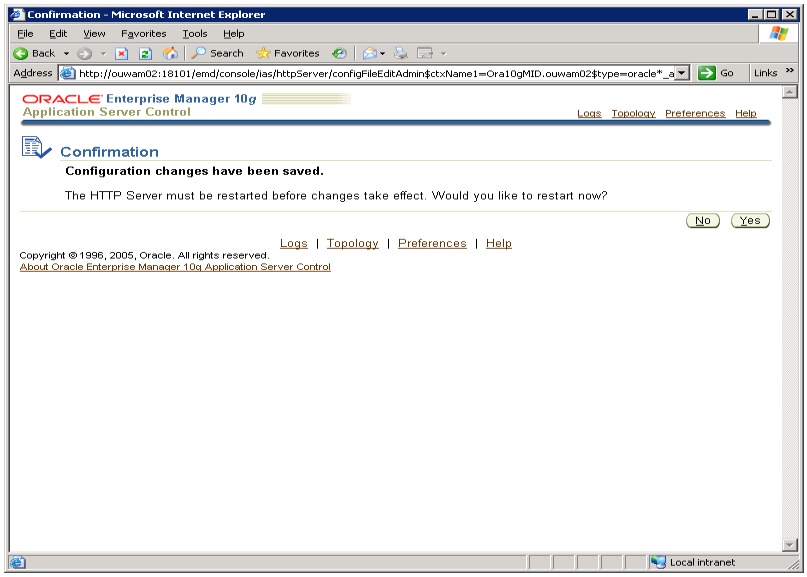
   Search for and change (this value might already be set to 7779):

   Listen 7778

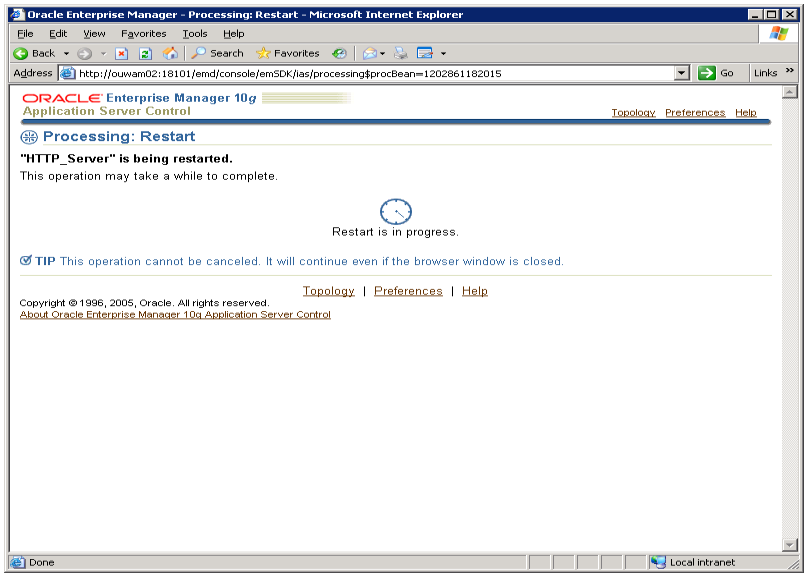
   To:

   Listen 7779

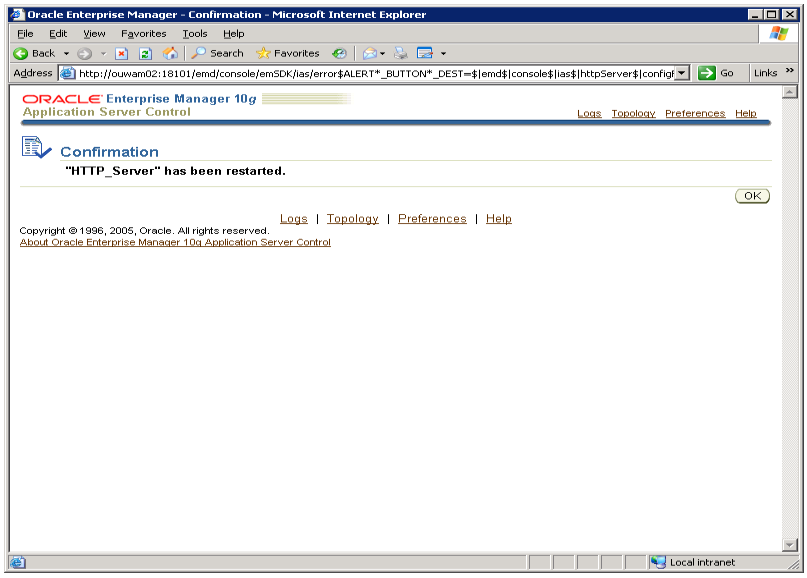
6. Click Apply.
7. On the following confirmation screen, click Yes to restart the HTTP Server:



The following screen shows the restart status:



8. Click OK on the confirmation screen then close the browser.



Manage the Mid-Tier

At this point, you will need to stop the Mid-Tier according to the process for the operating system, modify tnsnames and stop the OC4J instance.

1. Stop the Mid-Tier according to the process for the operating system:

   Windows
   On a Windows environment stop the Mid-Tier by navigating to the following:

   Start->Programs-> Oracle Application Server 10g - Ora10gMID> Stop Ora10gMID.<servername/ip>

   A DOS window opens showing the status. Wait until it disappears before starting the Mid-Tier. To start the Mid-Tier on a Windows environment, navigate to the following:

   Start->Programs-> Oracle Application Server 10g - Ora10gMID> Start Ora10gMID.<servername/ip>

   Linux
   On a Linux environment, set the ORACLE_HOME variable to the Mid-Tier path (/home/oracle/Ora10gMID) and change directory to $ORACLE_HOME/opmn/bin and run the following command:

   opmnctl stopall

   To start the Mid-Tier on a Linux environment, issue the following command:

   opmnctl startall

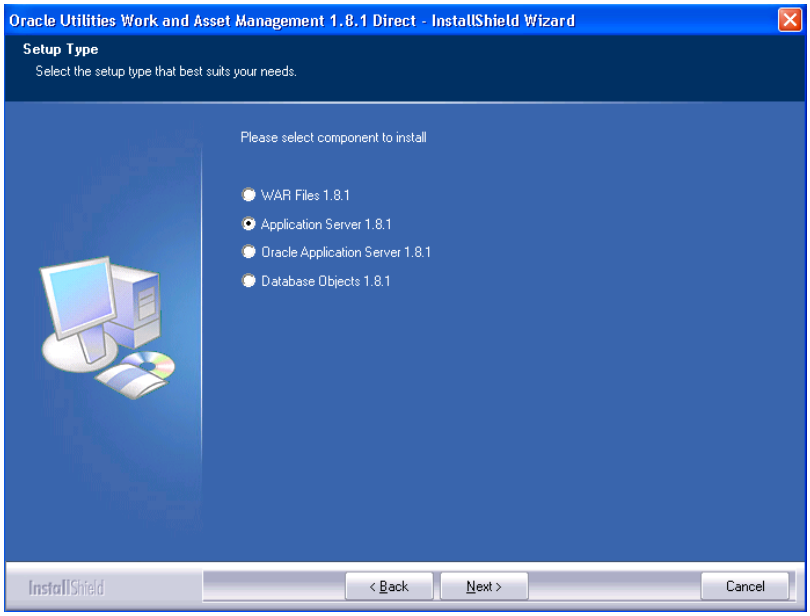
2. Make an entry in the Mid-Tier tnsnames.ora for the database that will be used for the application.
3. Log into the EM console Mid-Tier to stop the OC4J_<instance name>, if it is running, in order to continue with the application installation.

Install Application Server Components

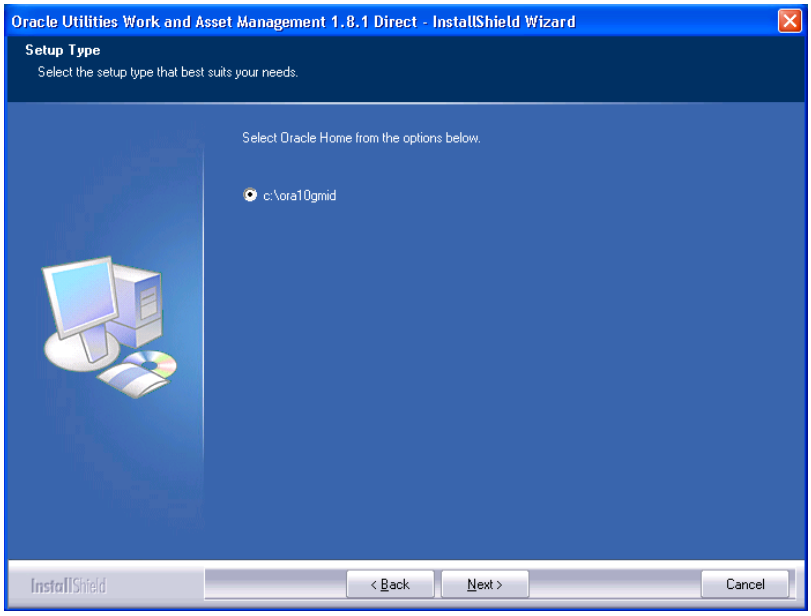
For a Windows installation, these phases are delivered via an Installshield program. Please refer to the section titled "Linux Installation" for specific Linux guidelines associated with this step.

1. Navigate to where the Installshield program is saved. Click setup.exe and click next from the Welcome screen:

2. On the following screen, choose 'Application Server 1.9' and click Next.



3. On the following screen, confirm the Mid-Tier home is selected and click Next.

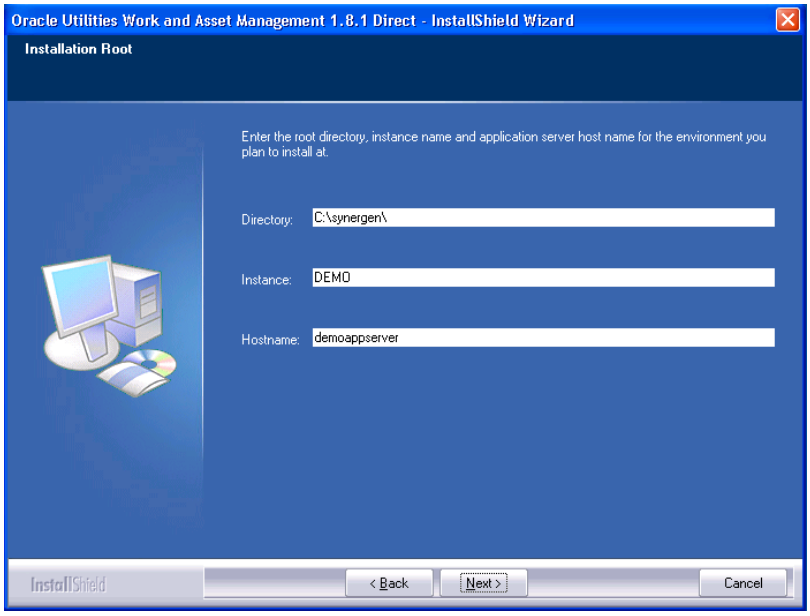


4. In the following screen, enter the following then click Next:

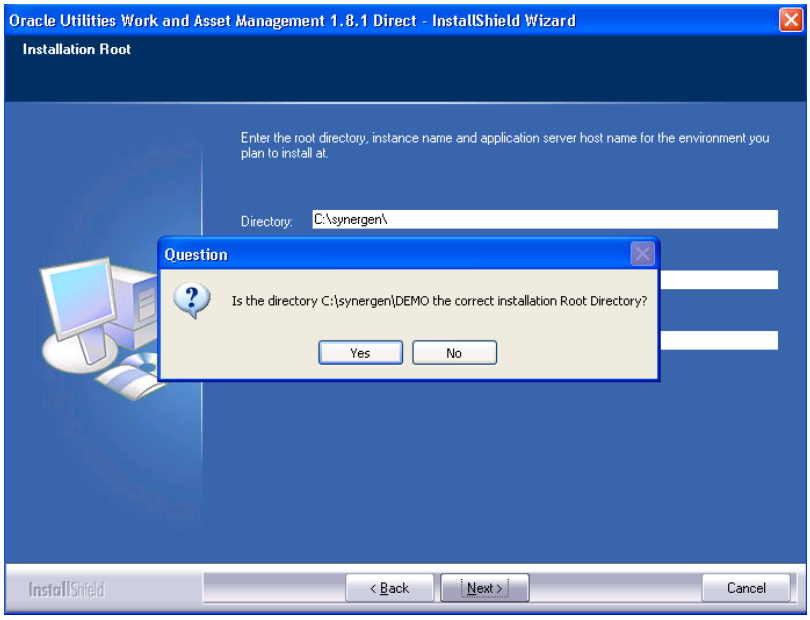
   Directory: change the drive letter to the desired location. Do not change anything else.

   Instance: set this value to what has been defined in the previous steps. This value is case sensitive.

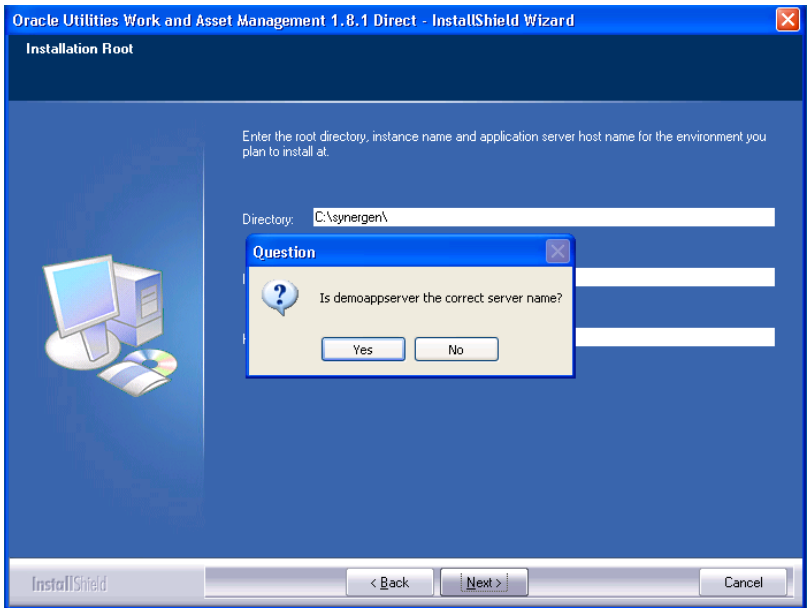
   Hostname: set this value to the name of the where the installation is occurring.



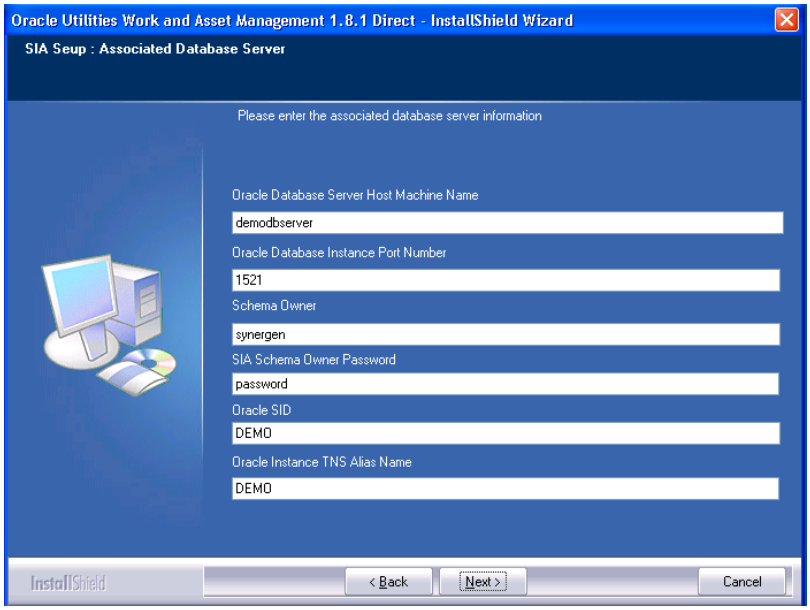
5. A series of confirmation windows will be presented. Click Yes if the directory installation is correct:



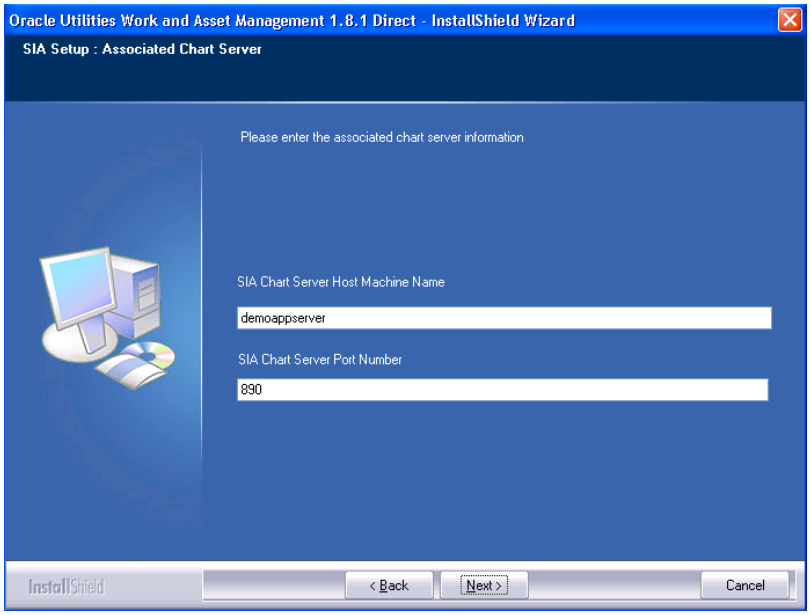
6. In the following confirmation window, click Yes if the server name is correct:



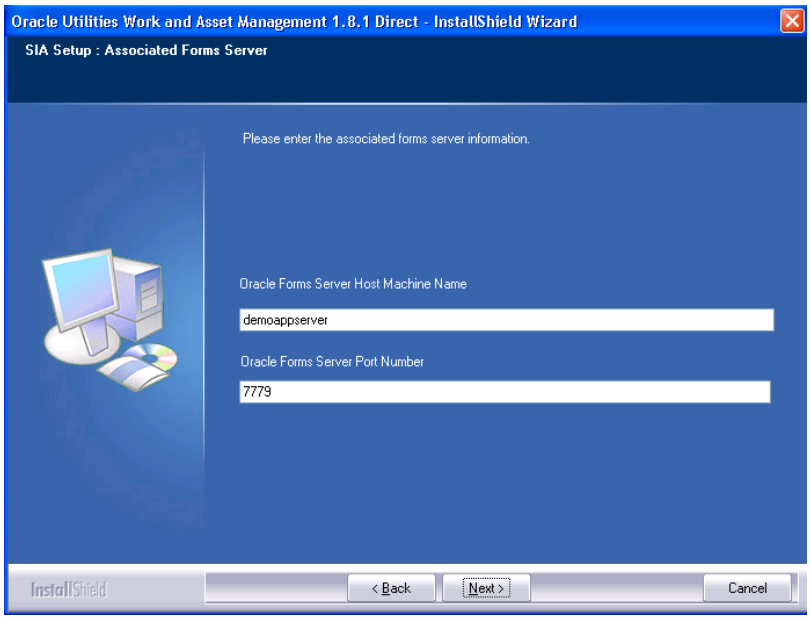
7. In the following screen, enter in the 'Oracle Database Server Host Machine Name' and the 'SIA Schema Owner Password' (this password is for the xadmin_synergen user). Modify other values as appropriate, then click Next:
   Note that the database name, port number and sid should match the values in the string entered in the Data Source configuration during WAR configuration:



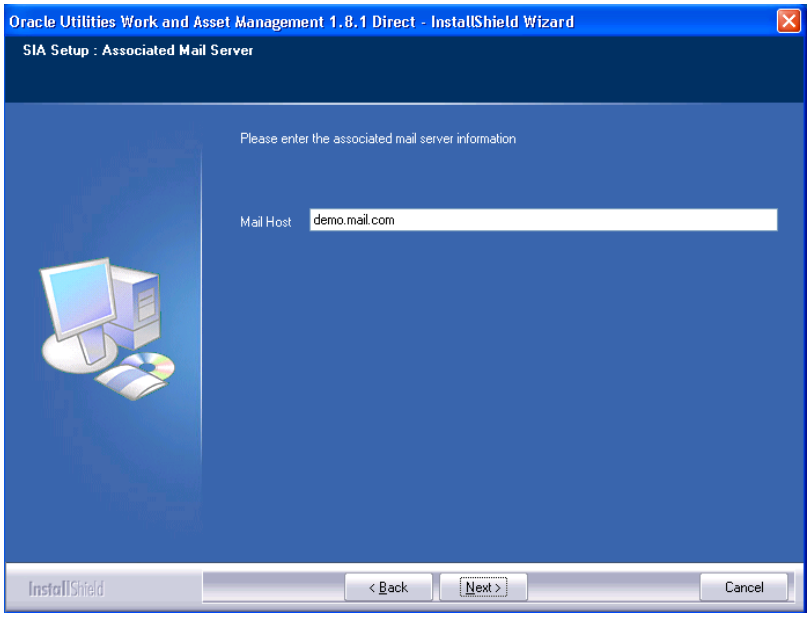
8. In the following screen, enter the server name where Charts will run, then click Next:
   Typically, this is the server where the application is going to run. The port number can be any value that is free:



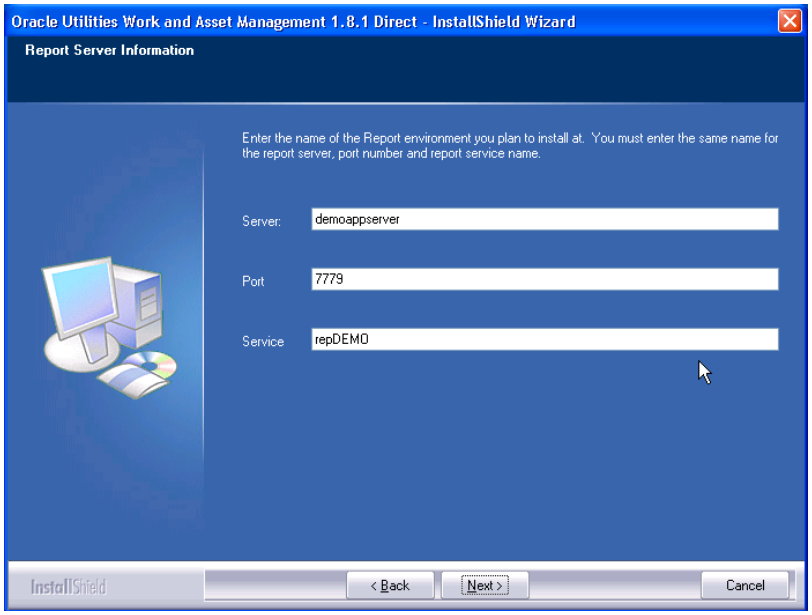
9. On the following screen, enter the server name where forms will be deployed, then click Next: Typically, this is the server where the application is going to run. Do not change the port value.



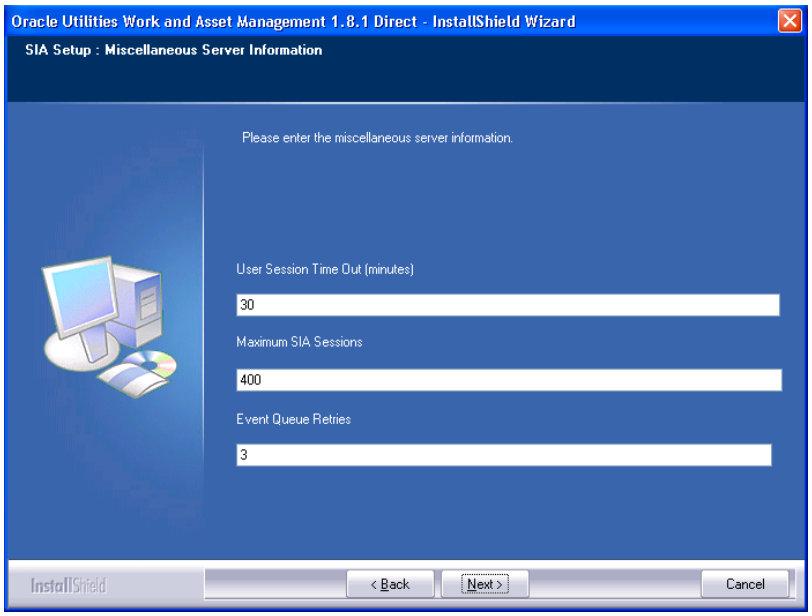
10. On the following screen enter in the mail server:



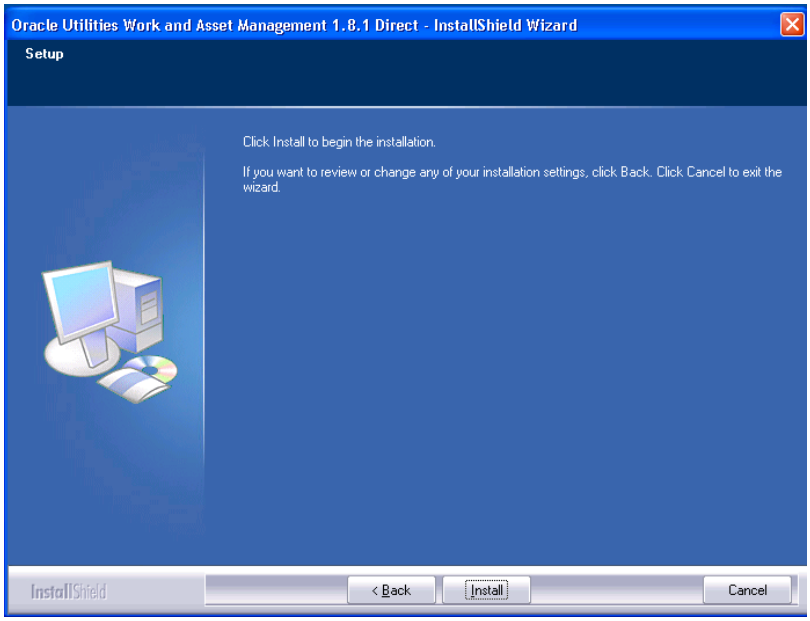
11. On the following screen, enter the server name where reports will run, then click Next:
    Typically, this is the server where the application is going to run. Do not change the port value. Change the report service name to reflect the instance name.



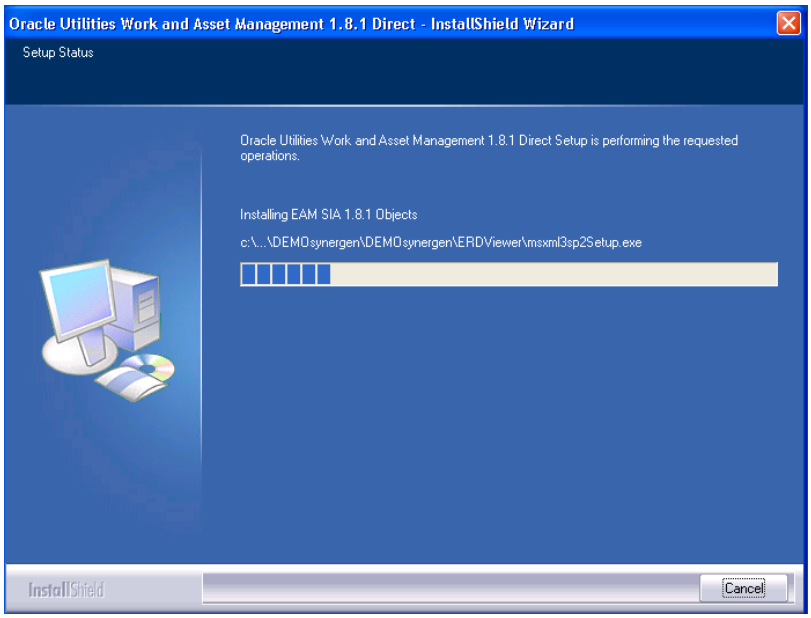
12. On the following, accept the default values and click Next:



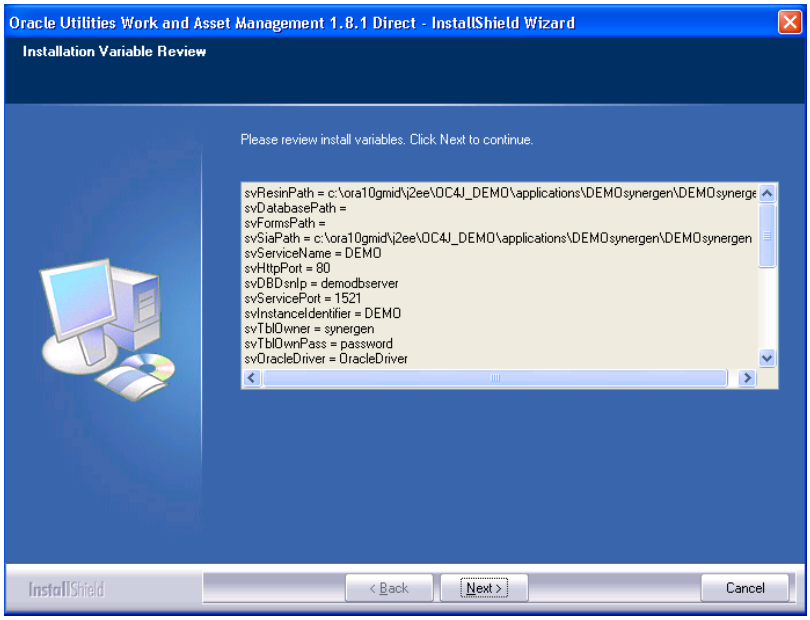
13. On the following screen, click Install. This will start copying files to the Mid-Tier folder:



The following screen shows the install status:

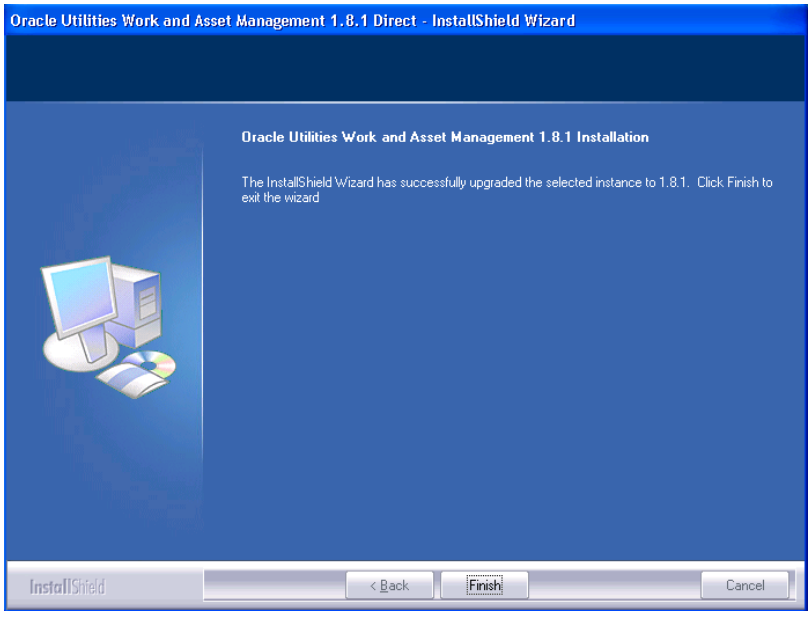


After the install is complete the Install Variable Review screen is presented:



14. Click Next.

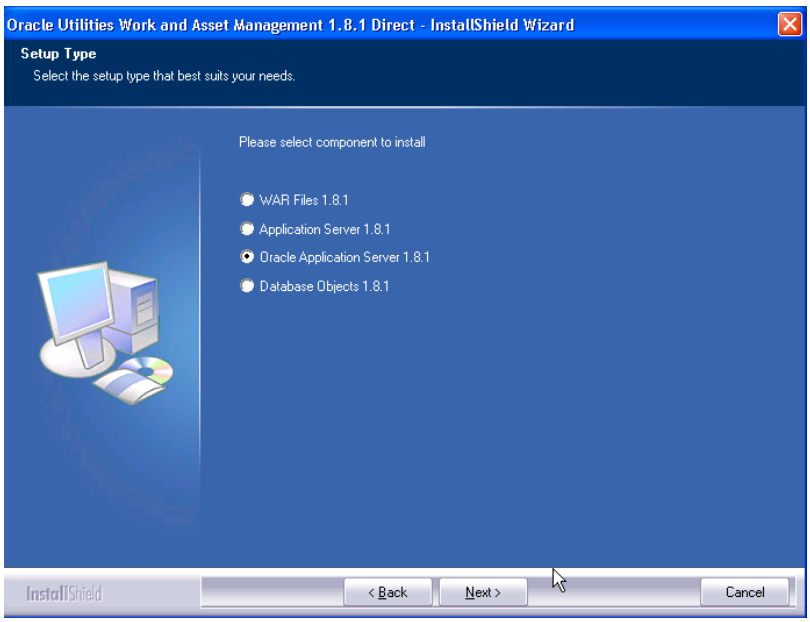
15. On the following screen, click Finish to exit the Installshield program:



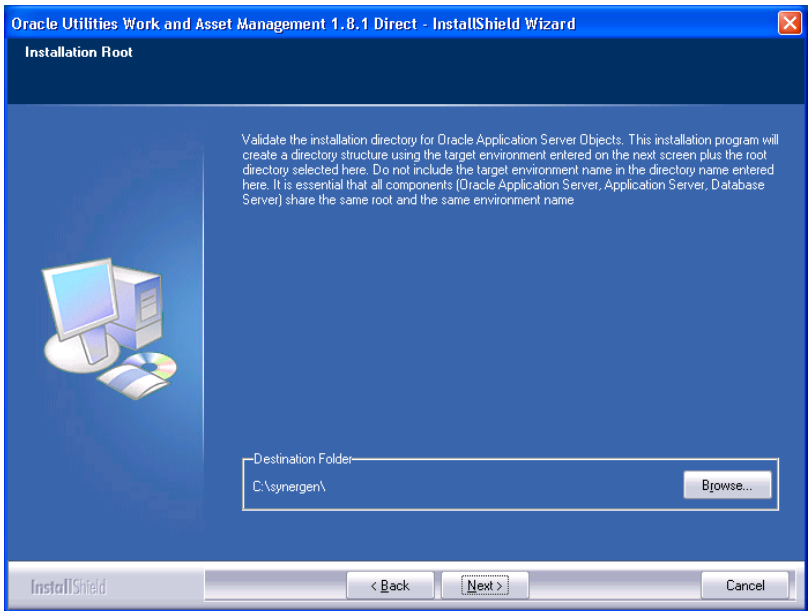
Install Oracle Application Server Components

For a Windows installation, these phases are delivered via an Installshield program. Please refer to the section titled "Linux Installation" for specific Linux guidelines associated with this step.

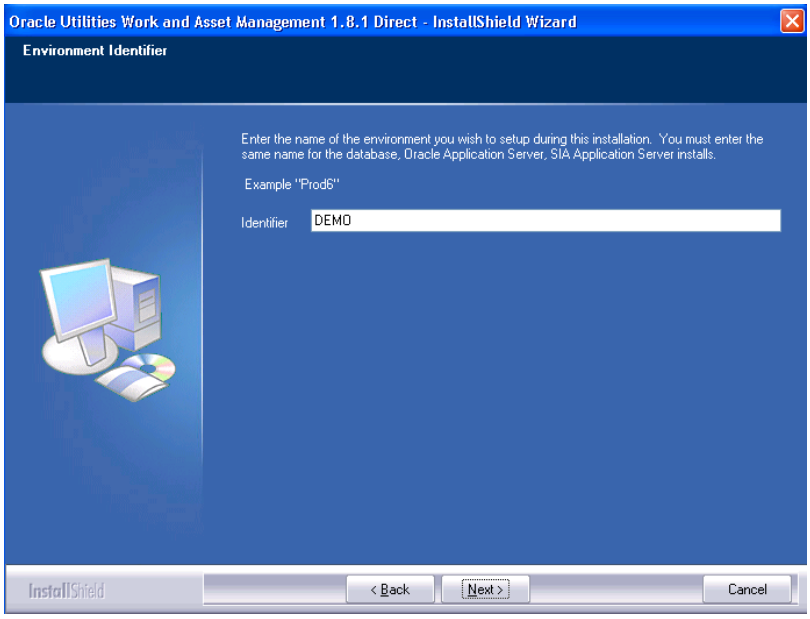
1. Navigate to where the Installshield program is saved. Click setup.exe and click next from the Welcome screen.
2. On the following screen, click 'Oracle Application Server 1.9', then click Next:



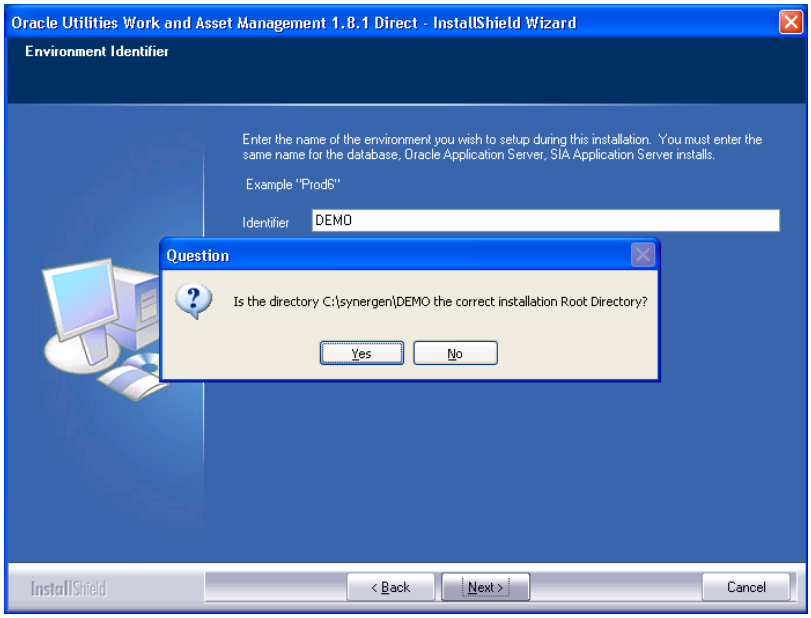
3. On the following screen, accept or change the drive letter, then click Next:
Do not change anything else.



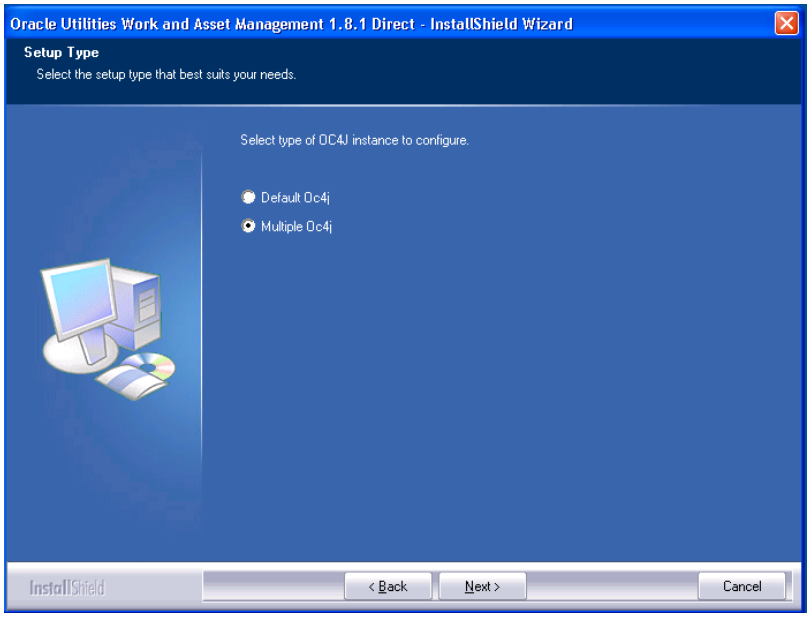
4. On the following screen, enter in the instance name that has been defined in the previous steps then click Next:
   This value is case sensitive.



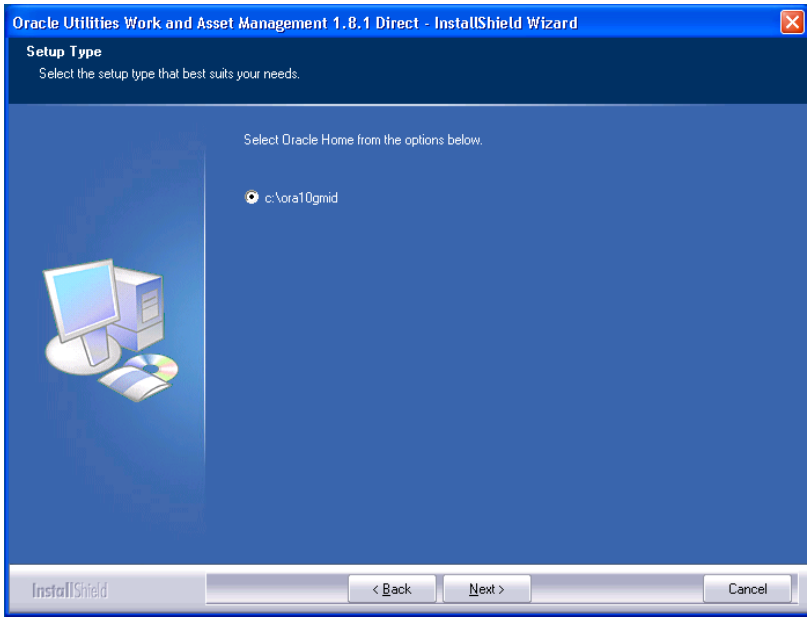
A series of confirmation windows will be presented. Click Yes if the directory installation is correct:



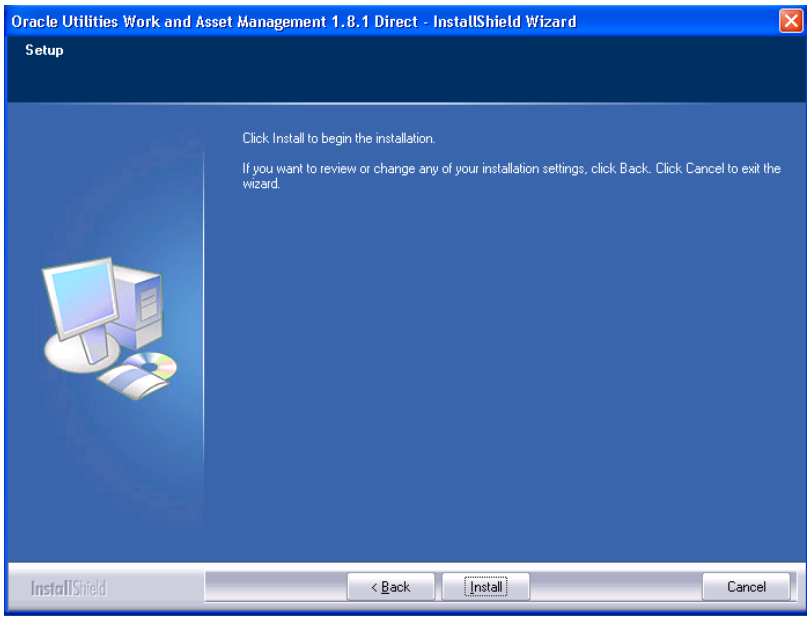
5. On the following screen, accept the default ‘Multiple Oc4J’ then click Next:



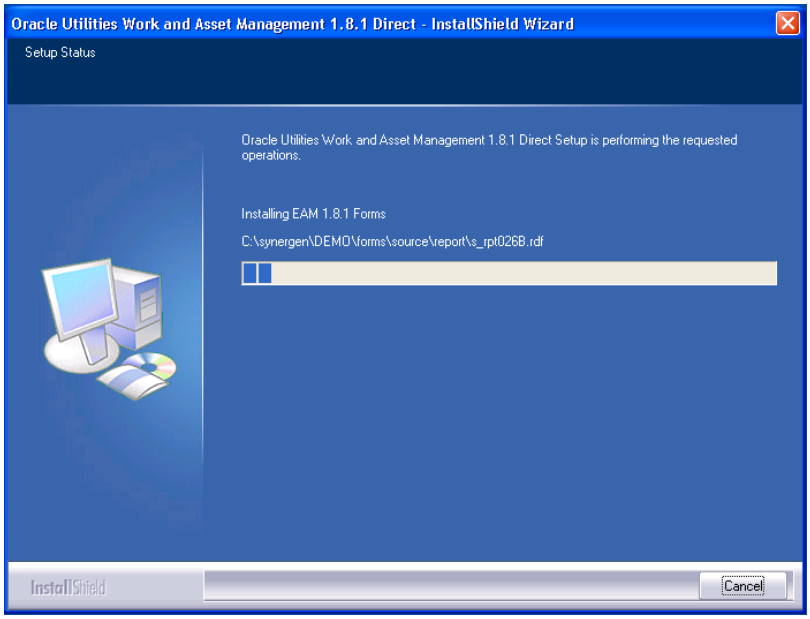
6. On the following screen, confirm the Mid-Tier home is selected and click Next.



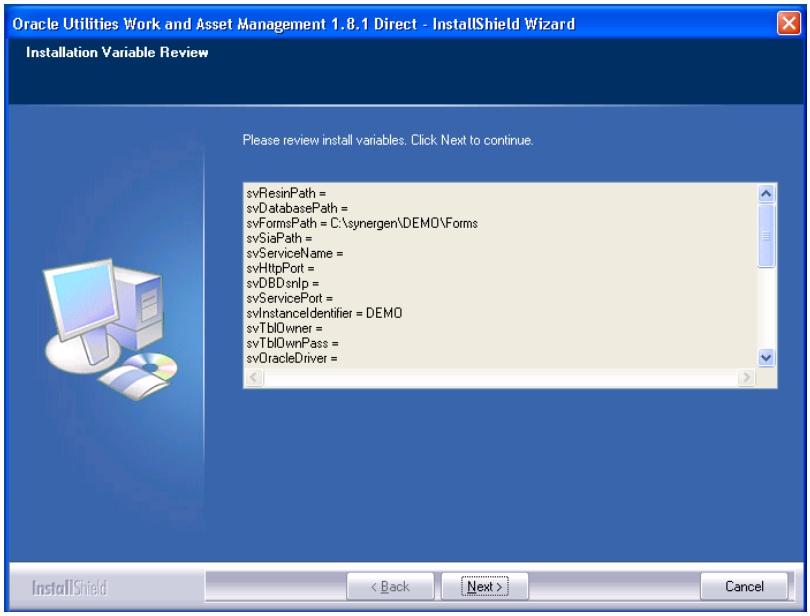
7. On the following screen, click Install.
   This will start copying files to the synergen folder specified above:



The following screen shows the install status:

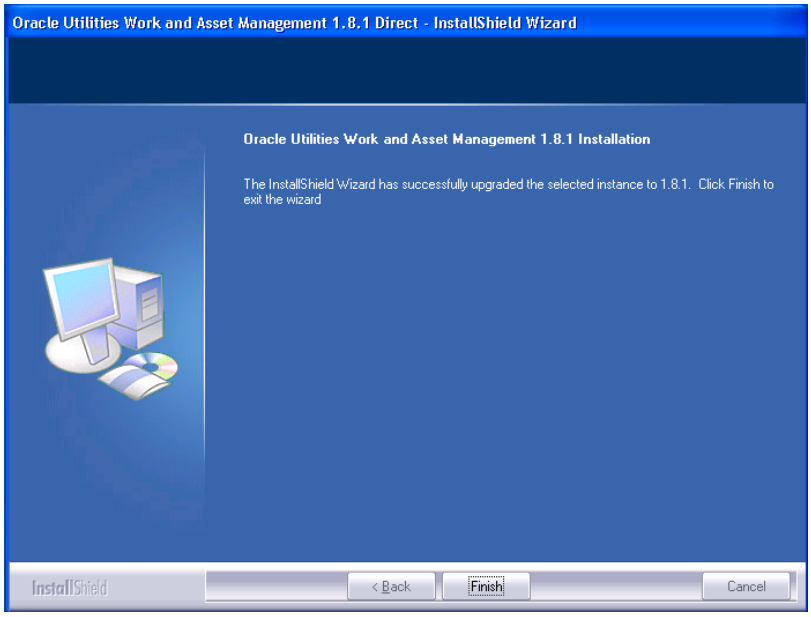


After the install is complete the Install Variable Review screen is presented:



8. Click Next.

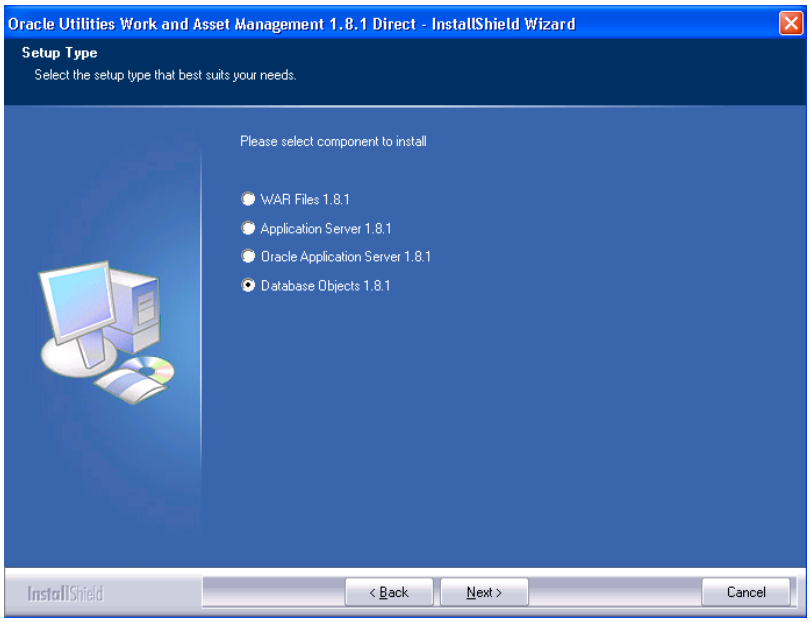
9. On the following screen, click Finish to exit the Installshield program:



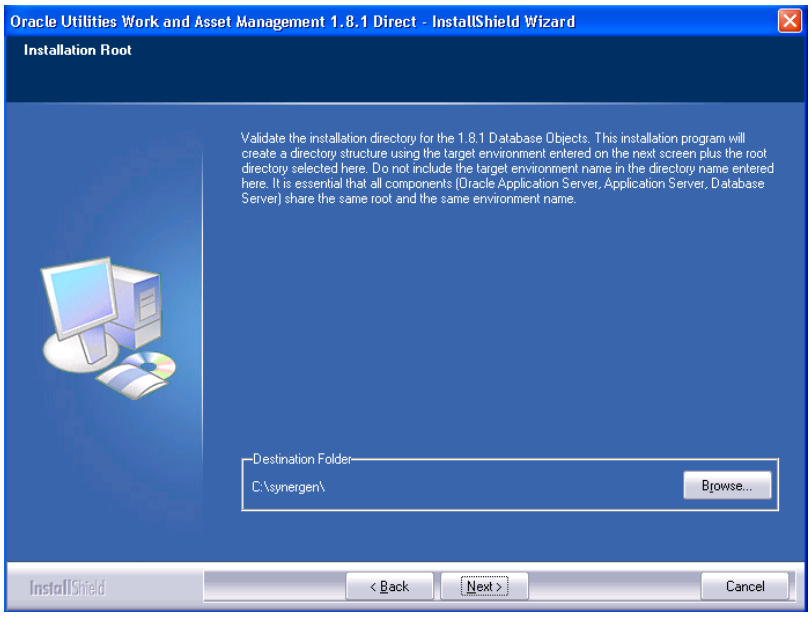
Install Database Object Components

These phases are delivered via an Installshield program.

1. Navigate to where the Installshield program is saved and click setup.exe then click next from the Welcome screen.
2. On the following screen, click 'Database Objects 1.9' and click Next:

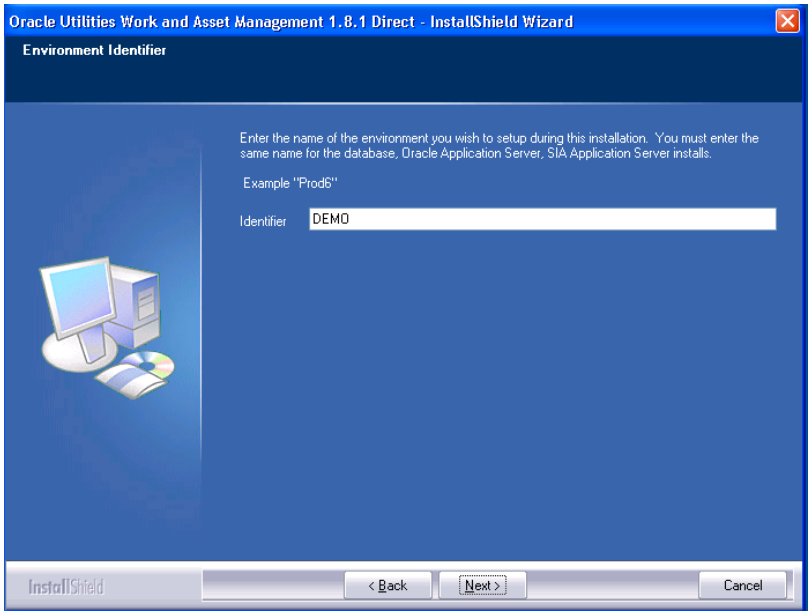


3. On the following screen, accept or change the drive letter and click Next:
   Do not change anything else.

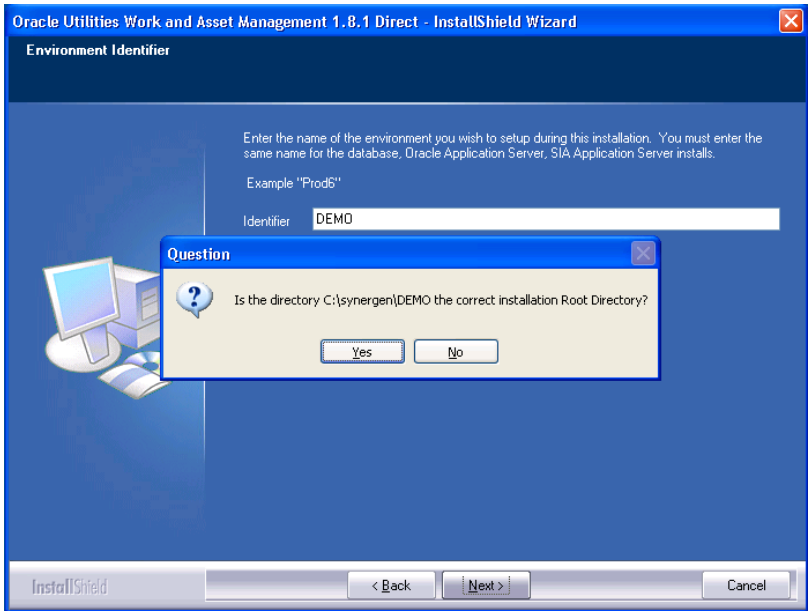


4. On the following screen, enter in the instance name that has been defined in the previous steps, then click Next:

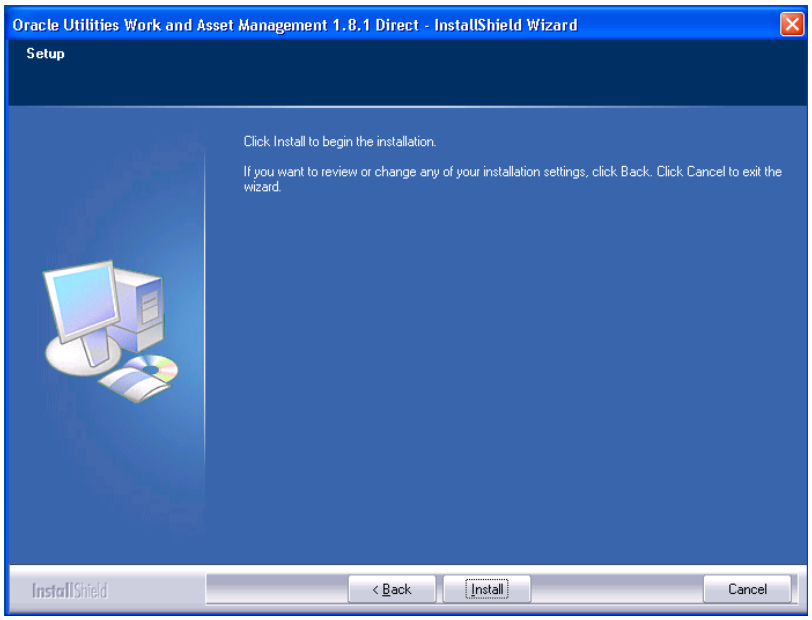
This value is case sensitive.



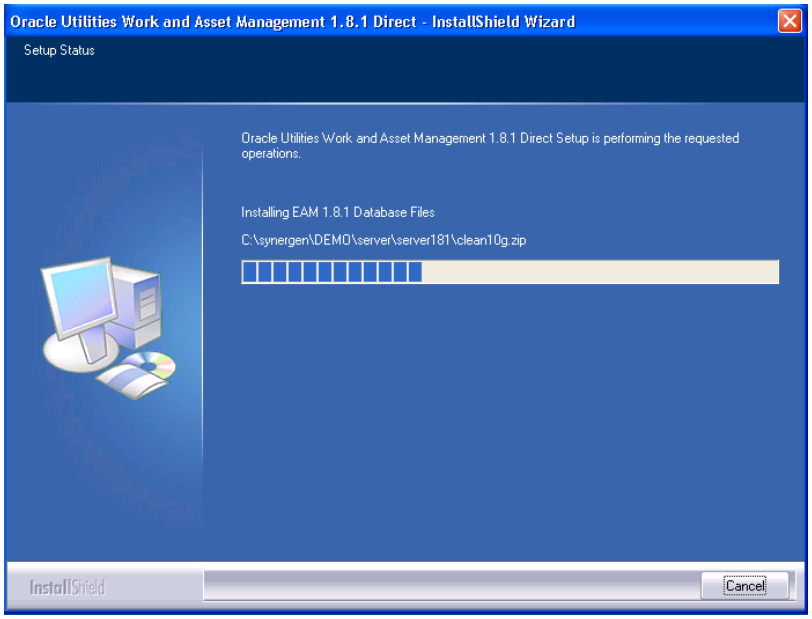
A series of confirmation windows will be presented. Click Yes if the directory installation is correct:



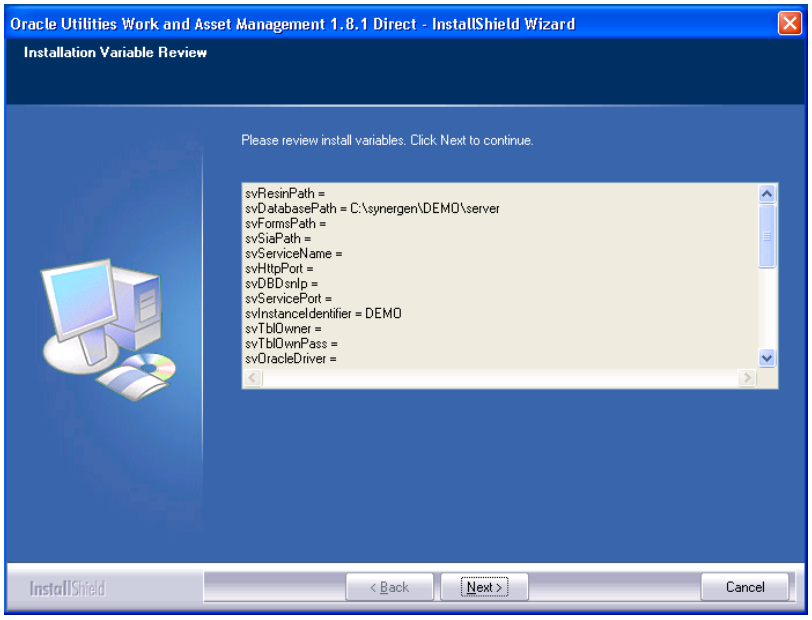
5. On the following screen, click Install. This will start copying files to the synergen folder specified above:



The following screen shows the install status:

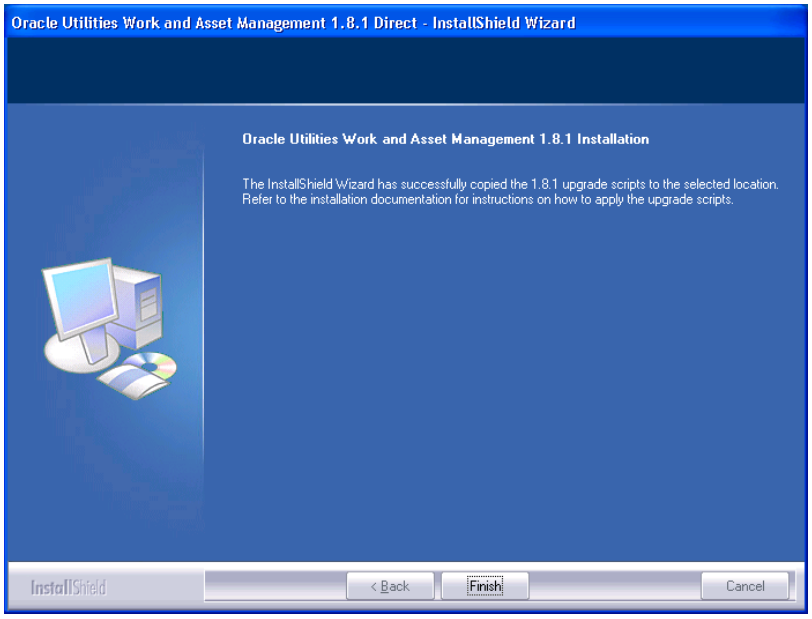


After the install is complete the Install Variable Review screen is presented:



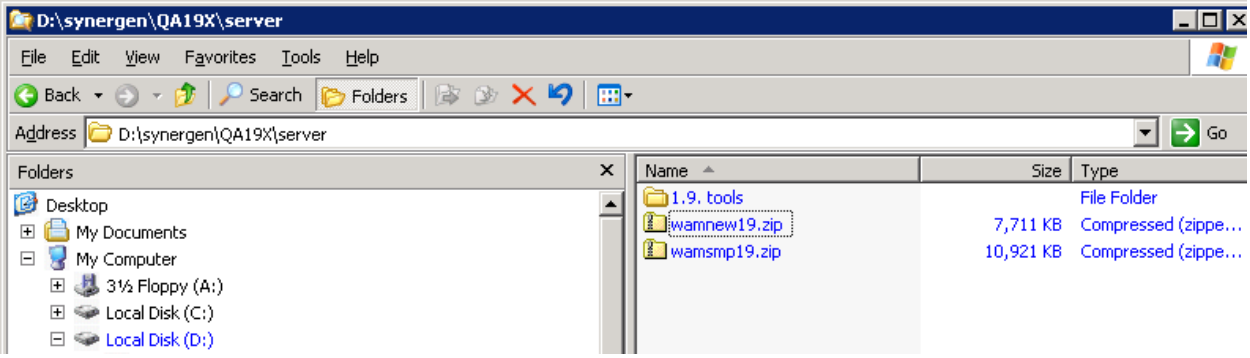
6. Click Next.

7. On the following screen, click Finish to exit the Installshield program:



Load Clean or New Database

After the download of the server components, a directory structure is created in the folder structure defined above. The folder resembles the following:



Navigate to the server folder. In that folder will be a wamnew19.zip file and a wasmp19.zip. The wamsmp19.zip file contains an Oracle Work and Asset Management 1.9 database export that contains sample data. The wamnew19.zip file is essentially an empty database with no sample data. In addition, there is a tools directory that will be used in the steps below.

Import the Database

In order to import this database several steps need to be executed. An assumption is made that the customer has some familiarity with creating databases and running sql scripts:

1. A database will need to be created prior to importing this sample export.
2. An INDX tablespace will need to be created for the database prior to importing this sample export.
3. Run the createuser.sql script, found in the1.9 tools directory, as the system user from a sqlplus session
4. Do a full import of the wamnew19 or wamsmp19 database, depending on your requirements. The file must be uncompressed first.
5. After the import is complete, run the servpk1900.sql script, found in the1.9 tools directory, as the synergen user from a sqlplus session.
6. In the event there are objects like the following: SDBP_MWM_INTEGRATION, PROCEDURE SDBP_CCB_SERVICE_REQ_INTERFACE, SDBP_JOB_ERROR_LOG that have not compiled, execute the jobview.sql script, found in the1.9 tools directory, as the synergen system user from a sqlplus session:
7. In the event there are objects that have the key word PROJECT in them that have not compiled, do the following:
    a. Log into a sqlplusw session as the synergen user
    b. Run the servpk1900.sql script, found in the 1.9 tools directory
    c. At the sql prompt, connect as projuser/<password>@<db name>
    d. At the sql prompt, run the projuser_grantsyn.sql script, found in the 1.9 tools directory
    e. At the sql prompt, connect as synergen<password>@<db name>
    f. At the sql prompt, run the recompile.sql script, found in the 1.9 tools directory

8. Run the cres7syn.sql script, found in the1.9 tools directory, as the synergen user from a sqlplus session
9. Run the cres7grt.sql script, found in the1.9 tools directory, as the synergen user from a sqlplus session.
10. Log into a sqlplus session as the sysdba user and execute the admin_dbms_job.pkg and admin_dbms_job.pkb located in the 1.9 tools\s60obj folder.

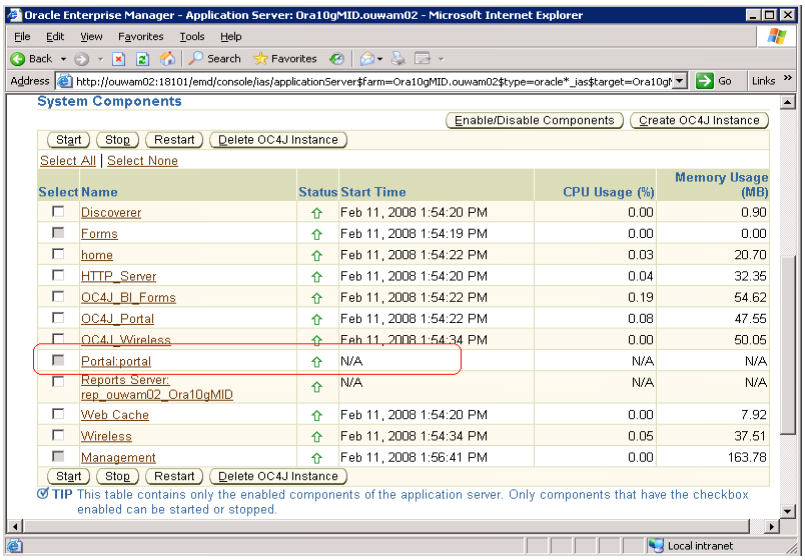
Test the Installation

After the database objects are successfully installed you should be able to log in to the application and open forms.

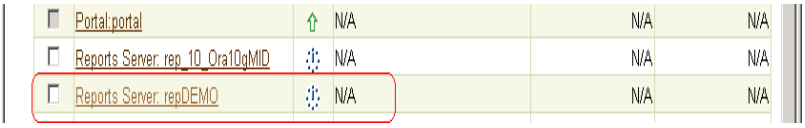
1. Start the OC4J instance and log into the application.
2. Log into the application
3. Navigate to any form module to very forms are working.

Create Reports Service

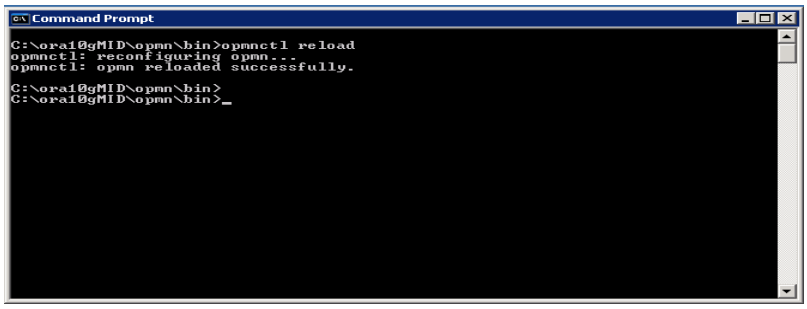
In order to create a reports service the Portal instance on the application server must be up and running:



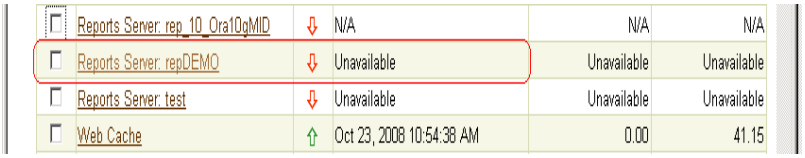
1. On the application server, open a CMD window and navigate to the following folder: <Mid-Tier>\bin.
2. Enter the following command at the prompt: addNewServerTarget <report server name>, where <report server name> is the desired report name that will be configured in the application.
   Note that the CMD will disappear after the command completes:
3. In the Oracle Application Server Enterprise Management Console, the report service instance will be created:



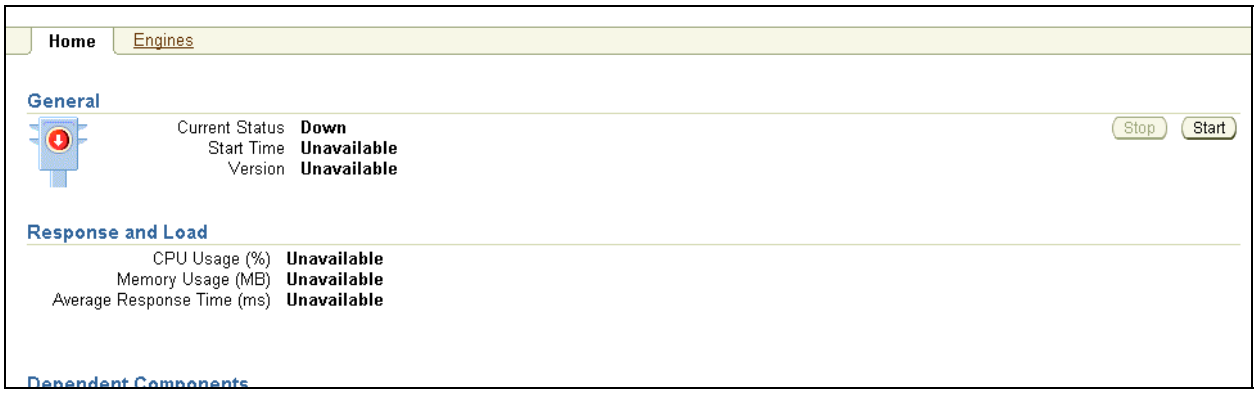
4. On your application server, open a CMD window and navigate to <Mid-Tier>\opmn\bin. Enter the following command at the prompt: opmnctl reload



5. In the Oracle Application Server Enterprise Management Console, the report service instance will be shut down. Click the new report service instance like the one circled below:



6. On the following screen, click the Start button to activate the report service:



7. Navigate to <Oracle Mid-Tier Home>\Apache\Apache\htdocs and create a new folder named ‘repcache’. Make this folder shared and enable the Share Permissions to Full Control. The repcache folder is where report and export files are stored.

Run Manual Scripts

You must run all scripts directly from within the folder containing the scripts; you cannot run the scripts by referencing the scripts using directory paths – for example, you cannot execute "@d:\synergen\Prod6\server\ServicePack19\server\ createPasswordResetUser.sql" – you must set the default directory to d:\synergen\Prod6\server\Release19\server, then run "@createPasswordResetUser.sql" – the reason is that our scripts dynamically generate additional scripts, and these scripts are then launched from within the session, and all scripts need to be in the same directory.

Launch SQL Plus

On the database server, launch the SQL*Plus program and connect to the target instance as the existing Synergen table owner. Use 'File/Open' to navigate to the directory where you copied the upgrade scripts; for example, for 'Prod6', navigate to d:\synergen\Prod6\server\Release19\server and open the file createPasswordResetUser.sql, to set the default file folder for the current session.

createPasswordResetUser.sql

Run this script if you intend to allow Reset Password for your users. (See release notes 8481185). This script creates the database user that will be used to reset the passwords of the application users. The script is not automatically executed in the database since not all clients will take advantage of this new feature. The script prompts for the username and password for this database user. You cannot use an existing username; this must be a new user.

The created database user has roles limited to "CREATE SESSION" and "ALTER USER".

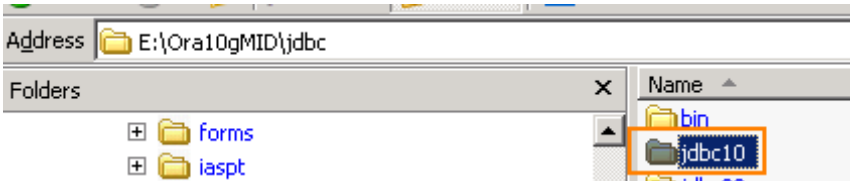
Note: To use reset password you should have also added a new datasource to the OC4J instance during the Data Source Configuration section of this document.

Execute the script

At the SQL> prompt, enter **@createPasswordResetUser.sql**

Configure JDBC Driver

The default driver installed is an older version that does not work well with connection pooling turned on. Use the latest driver provided with the WAM install by making a new folder in the < Mid-Tier>/jdbc directory called jdbc10 (Note: on a Linux install this is automatically created):

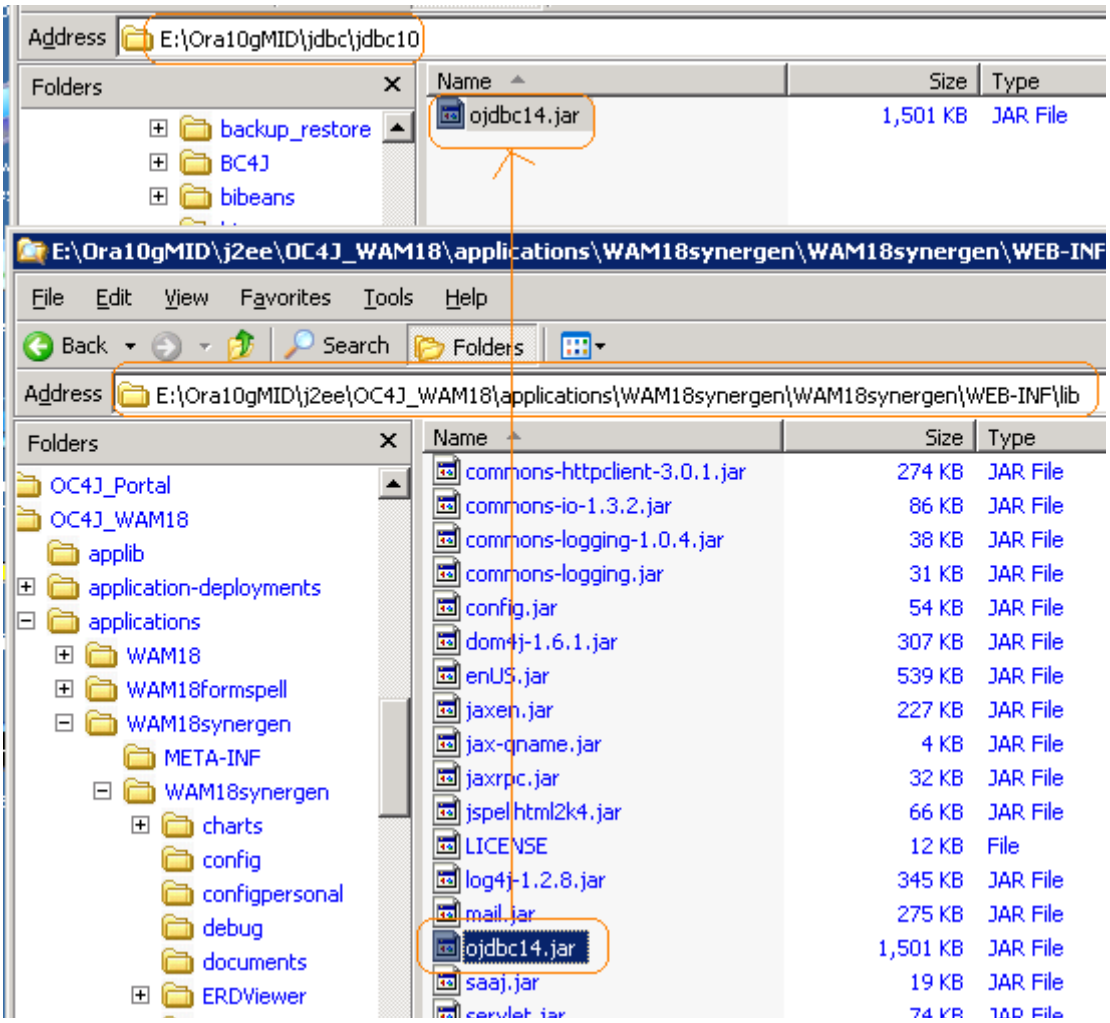


Copy file "ojdbc14.jar" from this directory (Note: on a Linux install this is automatically done):

<Mid-Tier>\j2ee\OC4J_<instance>\<instance>\applications\<instance>synergen\<instance>synergen\WEB-INF\lib

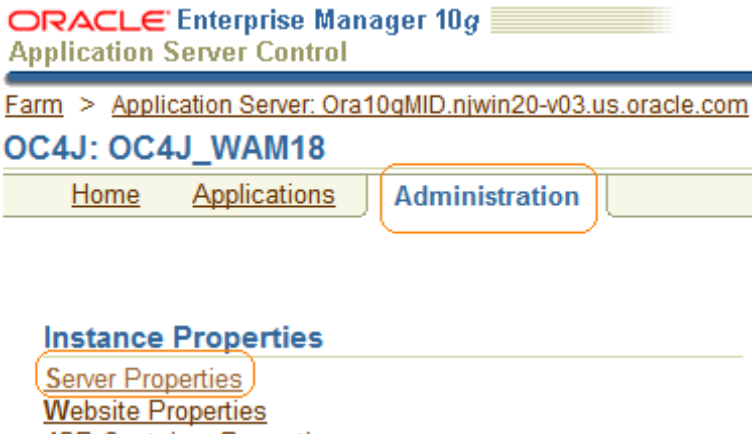
to directory:

<Mid-Tier>\jdbc\jdbc10



In the Enterprise Manage Console, navigate to the instance and click on it:

On the Administration Tab, click on Server Properties:



Scroll down to Command Line Options and enter the following in Java Options:

Enter **-Djava.ext.dirs=<Mid-Tier>\jdbc\jdbc10**
(**Note: Please enter the value manually, DO NOT COPY and PASTE.**)

Click Apply.

Linux Installation

Please follow the guidelines in this section if you are installing Oracle Utilities Work and Asset Management on Linux.

Support Documentation

The following standard Oracle documentation applies for Linux installations:

- List of required packages - Oracle® Application Server Installation Guide 10g Release 2 (10.1.2) for Linux x86 (B19310-03) for a list of required packages.
- Additional information on installation requirements - Doc ID 564174.1 :Oracle Application Server 10g (10.1.2) Installation Requirements for Linux OEL 5 and RHEL 5

Considerations

- You should follow the general installation steps as outlined in the Windows portion of this guide then respond to the various prompts that are presented during the Infrastructure and Mid-Tier component installs that require root privilege.
- Connecting to Oracle's Unbreakable Linux Network and executing 'yum install oracle-validated' will create the oracle user and group as well as install most of the required packages that Oracle Application Server needs.
- In addition to the required packages, you will need to get the latest pdksh package as well as the following versions (or later):

  openmotif21-2.1.30-11.EL5.i386.rpm

  xorg-x11-libs-compat-6.8.2-1.EL.33.0.1.i386.rpm

- You will need to make the following links as the system administrator after deploying the xorg-x11 package:

  ln -s /usr/lib/libgdbm.so.2.0.0 /usr/lib/libdb.so.2

  mv /usr/lib/libXtst.so.6.1.0 /usr/lib/libXtst_so_6_1_0

  mv /usr/lib/libXtst.so.6 /usr/lib/libXtst_so_6

  ln -s /usr/X11R6/lib/libXtst.so.6.1 /usr/lib/libXtst.so

  ln -s /usr/X11R6/lib/libXtst.so.6.1 /usr/lib/libXtst.so.6

  ln -s /usr/X11R6/lib/libXtst.so.6.1 /usr/lib/libXtst.so.6.1.0

- You will need to modify the kernel.sem value to 256 3200 100 142 and reboot the server after making the changes.

- If installing the Oracle Application Server on a Linux x86_64 bit environment, always use 32-bit shell emulation before running the installer and any other Oracle Application Server commands or scripts as follows: # linux32 bash
- The following packages will fail during the Product-specific Prerequisite Checks and can be ignored: openmotif, gnome-libs, xscreensaver
- An error will occur during the Install portion for both the Infrastructure and Mid-Tier that indicates the opmn process is already running. Choose 'Continue' when prompted as this is a known error.
- You do not need to install IIS prior to installing Oracle Application Server 10g on Linux.
- Install of the Oracle Application Server and WAM product needs to be done as the oracle user in Linux.

Linux Specific Installation Steps

Installation steps in the following sections differ from the Windows installation process. Please follow the guidelines indicated below:

- Install Oracle Utilities Work and Asset Management
- Configure Oracle HTTP Server
- Install Application Server Components
- Install Oracle Application Server Components

Install Oracle Utilities Work and Asset Management

The WAM installation for Linux is delivered in a tar file called 19Direct.tar.gz. Extract the contents of 19DIRECT.tar.gz . In the 19DIRECT folder are 4 tar files called formsinstall.tar.gz, siainstall.tar.gz, server19.tar.gz and WAR.tar.gz. Extract those files into the same 19Direct folder.

There are 4 phases to install a fully configured Oracle Utilities Work and Asset Management application:

1. Extract, deploy and configure Oracle Utilities Work and Asset Management web archive (WAR) files.
2. Install Application Server components
3. Install Oracle Application Server components
4. Install Database scripts

When asked to 'Enter the name of the environment you wish to setup during this installation', the name entered here will be used to create a number of items, including directory folder names, Oracle OC4J instances, database alias pointers, etc. The name must match the instance name that was used when creating the OC4J in the Mid-Tier configuration step.

You **must** use the same 'case' when entering the environment name in all four installation types – for example, you must enter 'DEMO' in all four installations, and not mix 'DEMO', demo and Demo – otherwise, you will encounter problems in the application.

Install Application Server Components

Execute WAMSIAInstall.sh and respond to the following prompts:

- Enter the Oracle Mid-Tier directory
- Enter the Instance Forms Name
- Enter the DB Instance Name
- Enter the Report Server Name
- Enter the Mail Server Name

Install Oracle Application Server Components

Execute WAMFormsInstall.sh and respond to the following prompts:

- Enter the Oracle Mid-Tier directory
- Enter the WAM Forms Directory
- Enter the Instance Forms Name
- Enter the DB Instance Name

Non-English Language Support

The following configurations should be managed immediately after installation to support a non-English install of Oracle Utilities Work and Asset Management.

Config Properties

The system uses the locale associated with the plant where users are logged in to determine language and other related settings. With a non-English install there are two additional locale-related settings in config.properties that need to be set for proper operation of the WAM application:

default_locale - Determines the locale used by the WAM application when displaying the logon page, and any other internal locale usage prior to a user logging on. If this is not provided, a default locale of en-us (US English) is assumed.

optional_default_java_locale – Determines which locale the internal Java code will use when the application code does not specify a locale. Normally this value is automatically determined by the Java runtime, based upon server environment settings, so this setting only needs to be modified if you plan to serve one language but the server has been set up as a server in a different language.

If, for example, a site wishes to serve an Argentinean Spanish language version of WAM but their server has been installed as a US English environment server, this property must be set to es-ar. Failure to do so may result in application error.

Locale Codes

Each locale code is composed of a two letter language code, a hyphen and a two letter country code. All represented in lower case. The two letter language code must come from the ISO-639 standardized list and the two letter country code must come from the ISO-3166 standardized list. Both of these standard lists can be found online.

For example:

English = en-us
Argentinean Spanish = es-ar

> Note that WAM only supports the two-letter abbreviations. Later revisions of both of standards use 3 letters.

Sample websites with this information:

http://en.wikipedia.org/wiki/List_of_ISO_639-1_codes
http://en.wikipedia.org/wiki/ISO_3166-1

To modify the config.properties file:

1. Locate the config properties file under the main application folder and open it in any plain text editor.
2. Modify default_locale and optional_default_java_locale with the appropriate locale code.

Additional Localization Settings

Please refer to the Online Help for more information on how to configure additional settings such as localized currency and field labels where needed. Configuration of the Plant module, the Field Localization view of the Modules Administration Forms module, currency codes in the Currency Exchange Rates module and the Unit of Measurement business rule control localized settings.

Phone Number Format: Note that phone number format is determined in the Plant module and should be set to "NO FORMAT" for non-English installations. This will allow the system to accommodate for any phone number format.

Certification Information

The Oracle Utilities Work and Asset Management application is tested with the service packs and patches described below. Oracle occasionally releases cumulative patches for the database and application server. It has been our experience that these patches do not adversely affect the Oracle Utilities Work and Asset Management product. However, exceptions do occur occasionally.

Microsoft occasionally releases cumulative patches for Internet Explorer. Because these cumulative patches have been known to introduce bugs in Oracle Utilities Work and Asset Management, we recommend that you do NOT install cumulative patches unless Oracle Corporation explicitly advises you to apply a patch to remedy a documented problem.

Oracle Corporation understands that it is important to apply those patches that safeguard against documented vulnerabilities. Timing may prevent Oracle Corporation from completely certifying these patches, but Oracle Corporation will make every reasonable attempt to support customers who have applied these. It is always advantageous to call customer support prior to applying an upgrade.

The Oracle Utilities Work and Asset Management application is modified and tested with ESRI ArcMap 9.0 Build 535.

Certified and Supported Platforms

The installation has been certified to operate on many operating system, application server, and database server combinations.

The following table details the operating system and application server combinations on which Oracle Utilities Work and Asset Management V1.9 application has been tested and certified.

Operating System	Chipset	Application Server	Database Server
AIX 5.3 (64-bit) TL11 AIX 6.1 (64-bit) TL4	Power 64-bit	Not Supported	All supported See database server version information below.
HP-UX 11.31 (64-bit)	Itanium	Not Supported	
Oracle Enterprise Linux 5.4 (64-bit) Red Hat Enterprise Linux 5.4 (64-bit)	x86_64	Oracle Application Server v10.1.2.3	
Sun Solaris 10 (64-bit)	SPARC	Not Supported	
Windows 2008 Server Enterprise Edition SP2 (64-bit)	x86_64	Not Supported	
Windows 2003 Server Enterprise Edition SP2 (64-bit and 32-bit)	x86_64 x86_32	Oracle Application Server v10.1.2.3	

Oracle Database Servers

- Supported Oracle Database versions include 10.2.0.4, 11.1.0.7, and **11.2.0.1**, Enterprise or Standard Edition.

Client Operating Systems

- Windows XP x86 SP3
- Windows Vista x86*
- **Windows7 x86**

Browsers

- Internet Explorer 7.x

- **Internet Explorer 8.x**

Java Virtual Machine (JVM)

- Sun Java Plug-in v1.6.0_18

VM Products

- **Oracle VM 2.2**
  Oracle VM may be used for to create a virtual machine for either the database or application server operating system.

Notes

- Any combination of OS and browser is supported.
- Refer to the Oracle VM Release 2.2 documentation for more information about using Oracle VM.
- **Bolded** items are new for this release.
- Barcoding and Mobile are not supported on Linux.
- *Windows Vista to be de-supported in a future release.