IBM Forms Experience Builder 8.6
Standalone Installation with Oracle

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1 Information

This document will help with the installation of IBM Forms Experience Builder 8.6.

Before IBM Forms Experience Builder 8.6 can be installed, IBM Installation Manager, and WebSphere Application Server is required. The document will help with the installation of both software.

IBM Forms Experience Builder 8.6 supports multiple types of databases such as DB2, Oracle and Derby. Oracle will be the database focus for this document. Oracle must be pre-installed and configured before the IBM Forms Experience Builder installation.

The images in the document were captured from a Linux installation

Useful links:

- IBM Forms Experience Builder 8.6 Infocenter
  http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/Welcome/FEB_Welcome.html

- IBM Forms Experience Builder 8.6.X Detailed System Requirements
  http://www-01.ibm.com/support/docview.wss?uid=swg27044505

- WebSphere Application Server 8.5.5 Infocenter
  http://www-01.ibm.com/support/knowledgecenter/?lang=en#!/SSAW57_8.5.5/as_ditamaps/was855_welcome_ndmp.html

- Installation Manager Documentation
  http://pic.dhe.ibm.com/infocenter/install/v1r7/index.jsp?topic=%2Fcom.ibm.cic.agent.ui.doc%2Fhelpindex_imic.html

This document is not written or supported by IBM Support

Name	Date	Version	Description
Loc Dang	01/31/17	V1	IBM Forms Experience Builder 8.6 Installation with Oracle

2 Media

The assemply media used in this document is…
IBM Forms Experience Builder V8.6 Multiplatform Multilingual eAssembly (CRU63ML)

2.1 IBM Forms Experience Builder 8.6

1. Download the IBM Forms Experience Builder media file from Passport advantage. Save the file to a temporary media location <*MEDIA*>

   MEDIA = _____

Example:

```
WIN     F:\Media
LINUX   /opt/tmp/Media
AIX     /usr/tmp/Media
```

Media	File Name	Description
CN68BML	FormsExpBuilder_8.6.0.1_Win.exe	IBM Forms Experience Builder V8.6.0.1 Windows Multilingual
CN68CML	FormsExpBuilder_8.6.0.1_Linux.tar.gz	IBM Forms Experience Builder V8.6.0.1 Linux Multilingual
CN68DML	FormsExpBuilder_8.6.0.1_AIX.tar.gz	IBM Forms Experience Builder V8.6.0.1 AIX Multilingual

NOTE: IBM Forms Experience Build also supports Linux for System z (CN68EML) but the instructions in this document has not been reviewed for the operating system

2. Create a directory where the extracted files of the IBM Forms Experience Builder will be extracted to <*MFEB*>

   MFEB = _____

   Example:

```
WIN     F:\MFEB
LINUX   /opt/tmp/MFEB
AIX     /usr/tmp/MFEB
```

3. Extract the file to the following directory <*MFEB*>

Example: WINDOWS

```
        <MFEB>/documentation/…
        <MFEB>/FormsImage/…
        <MFEB>/IIM/…
```

```
        <MFEB>/launchpad/…
        <MFEB>/autorun.inf
        <MFEB>/launchpad.exe
        <MFEB>/launchpad.ini
        <MFEB>/launchpad64.exe
        <MFEB>/launchpad64.ini
```

Example: UNIX

```
        <MFEB>/documentation/…
        <MFEB>/FormsImage/…
        <MFEB>/IIM/…
        <MFEB>/launchpad/…
        <MFEB>/launchpad.sh
        <MFEB>/autorun.inf
```

2.2 WebSphere Application Server

1. Download the following WebSphere Application Server media files from Passport advantage. Save the files to a temporary media location <*MEDIA*>

   MEDIA = _____

Example:

```
WIN     F:\Media
LINUX   /opt/tmp/Media
AIX     /usr/tmp/Media
```

Media	File Name	Description
CIK2HML	WASND_v8.5.5_1of3.zip	IBM WebSphere Application Server Network Deployment V8.5.5 (1 of 3) for Multiplatform Multilingual
CIK2IML	WASND_v8.5.5_2of3.zip	IBM WebSphere Application Server Network Deployment V8.5.5 (2 of 3) for Multiplatform Multilingual
CIK2JML	WASND_v8.5.5_3of3.zip	IBM WebSphere Application Server Network Deployment V8.5.5 (3 of 3) for Multiplatform Multilingual

2. Create a directory where the extracted files of the WebSphere Application Server media will be extracted to <*MWASND*>

   MWASND = _____

   Example:

```
WIN     F:\MWASND
UNIX    /opt/tmp/MWASND
```

3. Extract all files to the same directory <*MWASND*>

Example:

```
<MWASND>/disk1/…
<MWASND>/disk2/…
<MWASND>/disk3/…
<MWASND>/lafiles/…
<MWASND>/readme/…
<MWASND>/Remote_Installation_Tool_for_IBM_i/…
<MWASND>/responsefiles/…
<MWASND>/Copyright.txt
<MWASND>/repository.config
```

2.3 WebSphere Supplements (Optional)

The WebSphere Supplements contains the IBM HTTP Server, WebSphere Plugins and WebSphere Customization tool installation media files.

1. Download the following WebSphere Suppliment media files from Passport advantage. Save the files to a temporary media location <*MEDIA*>

   MEDIA = _____

Example:

```
WIN     F:\Media
LINUX   /opt/tmp/Media
AIX     /usr/tmp/Media
```

Media	File Name	Description
CIK1VML	WAS_V8.5.5_SUPP_1_OF_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (1 of 3) for Multiplatform Multilingual
CIK1WML	WAS_V8.5.5_SUPP_2_OF_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (2 of 3) for Multiplatform Multilingual
CIK1XML	WAS_V8.5.5_SUPP_3_OF_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (3 of 3) for Multiplatform Multilingual

2. Create a directory where the extracted files of the WebSphere Application Server media will be extracted to <*MWASSUP*>

   MWASND = _____

   Example:

```
WIN     F:\MWASSUPP
LINUX   /opt/tmp/MWASSUPP
AIX     /usr/tmp/MWASSUPP
```

3. Extract all files to the same directory <*MWASSUPP*>

Example:

```
<MWASSUPP>/disk1/…
<MWASSUPP>/disk2/…
<MWASSUPP>/disk3/…
<MWASSUPP>/lafiles/…
<MWASSUPP>/readme_appclient/…
<MWASSUPP>/readme_ihs/…
<MWASSUPP>/readme_plugclient/…
<MWASSUPP>/readme_plugins/…
<MWASSUPP>/readme_wct/…
<MWASSUPP>/Remote_Installation_Tool_for_IBM_i/…
<MWASSUPP>/responsefiles/…
<MWASSUPP>/Copyright.txt
<MWASSUPP>/repository.config
```

3 Pre-requisite

1. Verify the Operating System used for IBM Forms Experience Builder is supported. (Operating Systems)

http://www-01.ibm.com/support/docview.wss?uid=swg27044505

2. If you are not using the Installation Manager that comes with IBM Forms, verify the version is supported. (Prerequisites)

http://www-01.ibm.com/support/docview.wss?uid=swg27044505

3. If you are not using the WebSphere Application Server that comes with IBM Forms, verify the version is supported. (Prerequisites)

http://www-01.ibm.com/support/docview.wss?uid=swg27044505

4. Verify the Database used with IBM Forms Experience Builder is supported (Prerequisites)

http://www-01.ibm.com/support/docview.wss?uid=swg27044505

4 Database

An external database is required for a production environment. The following section will help with the creation and configuration of the Oracle database for an IBM Forms Experience Builder installation.

4.1 Create Database

Follow the Oracle documentation to create an Oracle database. There are no IBM Forms Experience Builder requirements for the creation of the database.

ORADB = _____

Example: `FEBDB`

4.2 Configure Database User

Only one of the following section needs to be followed for creating an Oracle User and giving it the corect permissions.

- Full Administrative Permission
- Limited Permission

4.2.1 Full Administrative Permission

https://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/in_oracle_creating_db.html

1. Login to the Oracle Database Server
2. Login to Oracle SQLPlus using the SYS DBA role sysdba

```
sqlplus <SYS_USER>/<PASSWORD>@<FEBDB> as sysdba
```

Example:

```
sqlplus sys/XXXX@FEBDB as sysdba
```

3. Create the following 3 users

```
CREATE USER FREEDOM IDENTIFIED BY <PASSWORD>;
CREATE USER IF_CMIS IDENTIFIED BY <PASSWORD>;
CREATE USER APP_DATA IDENTIFIED BY <PASSWORD>;
```

4. Set table space quotas for the users

```
GRANT UNLIMITED TABLESPACE TO FREEDOM;
GRANT UNLIMITED TABLESPACE TO IF_CMIS;
```

```
GRANT UNLIMITED TABLESPACE TO APP_DATA;
```

5. Create and administrative user

```
CREATE USER <FEBDB_ADMIN> IDENTIFIED BY <PASSWORD>;
```

Example:

```
CREATE USER ORAFORM IDENTIFIED BY XXXX;
```

6. Set the following permission for the Oracle Forms Database Admin

```
GRANT ALL PRIVILEGES TO <FEBDB_ADMIN>;
GRANT EXECUTE ANY PROCEDURE TO <FEBDB_ADMIN>;
```

Example:

```
GRANT ALL PRIVILEGES TO ORAFORM;
GRANT EXECUTE ANY PROCEDURE TO ORAFORM;
```

4.2.2 Limited Permission

https://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/in_oracle_creating_db.html

1. Login to the Oracle Database Server
2. Login to Oracle SQLPlus using the SYS DBA role sysdba

```
sqlplus <SYS_USER>/<PASSWORD>@<FEBDB> as sysdba
```

Example:

```
sqlplus sys/XXXX@FEBDB as sysdba
```

3. Create the following 3 users

```
CREATE USER FREEDOM IDENTIFIED BY <PASSWORD>;
CREATE USER IF_CMIS IDENTIFIED BY <PASSWORD>;
CREATE USER APP_DATA IDENTIFIED BY <PASSWORD>;
```

4. Set table space quotas for the users

```
GRANT UNLIMITED TABLESPACE TO FREEDOM;
GRANT UNLIMITED TABLESPACE TO IF_CMIS;
GRANT UNLIMITED TABLESPACE TO APP_DATA;
```

5. Create and administrative user

```
CREATE USER <FEBDB_ADMIN> IDENTIFIED BY <PASSWORD>;
```

Example:

```
CREATE USER ORAFORM IDENTIFIED BY XXXX;
```

6. Set the following permission for the Oracle Forms Database Admin

```
GRANT CREATE SESSION TO <FEBDB_ADMIN>;
```

Example:

```
GRANT CREATE SESSION TO ORAFORM;
```

7. Create Oracle Role with the following permission

```
CREATE ROLE <FEBDB_ROLE>;

GRANT CREATE ANY TABLE, ALTER ANY TABLE, DROP ANY TABLE TO
<FEBDB_ROLE>;

GRANT SELECT ANY TABLE, INSERT ANY TABLE, UPDATE ANY TABLE, DELETE ANY
TABLE  TO <FEBDB_ROLE>;

GRANT CREATE ANY TRIGGER, ALTER ANY TRIGGER, DROP ANY TRIGGER TO
<FEBDB_ROLE>;

GRANT CREATE ANY SEQUENCE, ALTER ANY SEQUENCE, DROP ANY SEQUENCE TO
<FEBDB_ROLE>;

GRANT SELECT ANY SEQUENCE TO <FEBDB_ROLE>;

GRANT CREATE ANY INDEX, ALTER ANY INDEX, DROP ANY INDEX TO
<FEBDB_ROLE>;

GRANT CREATE ANY PROCEDURE TO <FEBDB_ROLE>;
```

Example:

```
CREATE ROLE ORAFORM_ROLE;

GRANT CREATE ANY TABLE, ALTER ANY TABLE, DROP ANY TABLE TO
ORAFORM_ROLE;

GRANT SELECT ANY TABLE, INSERT ANY TABLE, UPDATE ANY TABLE, DELETE ANY
TABLE TO ORAFORM_ROLE;

GRANT CREATE ANY TRIGGER, ALTER ANY TRIGGER, DROP ANY TRIGGER TO
ORAFORM_ROLE;

GRANT CREATE ANY SEQUENCE, ALTER ANY SEQUENCE, DROP ANY SEQUENCE TO
ORAFORM_ROLE;

GRANT SELECT ANY SEQUENCE TO ORAFORM_ROLE;

GRANT CREATE ANY INDEX, ALTER ANY INDEX, DROP ANY INDEX TO
ORAFORM_ROLE;

GRANT CREATE ANY PROCEDURE TO ORAFORM_ROLE;
```

8. Add the Forms Experience Builder database administrator to the Forms Experience Builder database role

```
GRANT <FEBDB_ROLE> to <FEBDB_ADMIN>;
```

Example:

```
GRANT ORAFORM_ROLE to ORAFORM;
```

4.3 JDBC Driver

1. Login to the IBM Forms Experience Builder file system as an administrator

2. Create a directory to store the JDBC driver for the database

   JDBC_DRIVER = _____

   Example:

```
WIN     E:\JDBC\
LINUX   /opt/JDBC/
AIX     /usr/JDBC
```

3. Copy the Database Driver to the <*JDBC_DRIVER*> directory

   From:

```
<ORACLE_HOME>/products/<ORACLE_VERSION>/dbhome_1/jdbc/lib/ojdbc6.jar
```

   To:

```
<JDBC_DRIVER>/ojdbc6.jar
```

5 Mail Server

During the installation of IBM Forms Experience Builder, the mail server information is required. The mail information can be changed in the WebSphere Application Server administrative console after the installation is complete if required.

Gather the following mail server information.
Mail Server name: _____
Protocol (smtp): _____
Mail server user ID: _____
Mail server user password: _____
Return email address: _____

Example:

```
Mail Server name: mailserver.ibm.com
Protocol (smtp): smtp
Mail server user ID: mailuser
Mail server user password: XXXX
Return email address: form@ibm.com
```

6 IBM Installation Manager

If the Installation Manager is already installed, this step may be skipped. Verify the version of Installation Manager is supported by IBM Forms Experience Builder

1. Login to the IBM Forms Experience Builder file system as an administrator/root

2. Navigate to the IIM directory of the Forms Media

```
# cd <MFEB>/IIM/
```

Example:

```
WIN     # cd F:\MFEB\IIM
UNIX    # cd /opt/tmp/MFEB/IIM
```

3. Navigate to the OS directory

```
WIN32           Win32
WIN64           WinX64
LINUX           Linux
LINUX 64        LinuxX64
AIX             AIX
```

Example:

```
WIN32           F:\MFEB\IIM\Win32
WIN64           F:\MFEB\IIM\WinX64
LINUX           /opt/tmp/MFEB/IIM/Linux
LINUX 64        /opt/tmp/MFEB/IIM/LinuxX64
AIX             /opt/tmp/MFEB/IIM/AIX
```

4. Run the following command on one line to install the IBM Installation Manager

```
installc.(exe)
 -installationDirectory "<IIM_ECLIPSE_DIR>"
 -log <LOGLOCATION and LOGFILE> -acceptLicense
```

Example: WINDOWS

```
installc.exe
 -installationDirectory E:\IBM\InstallationManager\eclipse
 -log E:\IBM\IIM_Install.log -acceptLicense
```

Example: LINUX

```
./installc
 -installationDirectory /opt/IBM/InstallationManager/eclipse
 -log /opt/IBM/IIM_Install.log -acceptLicense
```

Example: AIX

```
./installc
 -installationDirectory /usr/IBM/InstallationManager/eclipse
 -log /usr/IBM/IIM_Install.log -acceptLicense
```

5. Verify the following message is returned

```
Installed com.ibm.cic.agent_1.8.0.20140902_1503 to <IIM_ECLIPSE_DIR>
directory.
```

Example: WINDOWS

```
Installed com.ibm.cic.agent_1.8.0.20140902_1503 to
E:\IBM\InstallationManager\eclipse directory.
```

Example: LINUX

```
Installed com.ibm.cic.agent_1.8.0.20140902_1503 to
/opt/IBM/InstallationManager/eclipse directory.
```

Example: AIX

```
Installed com.ibm.cic.agent 1.8.0.20140902 1503 to
/usr/IBM/InstallationManager/eclipse directory.
```

7 WebSphere Application Server

7.1 Install

If WebSpere Application Server has already been installed this step can be skipped as long as the version is supported with IBM Forms Experience Builder. Only one installation method is required.

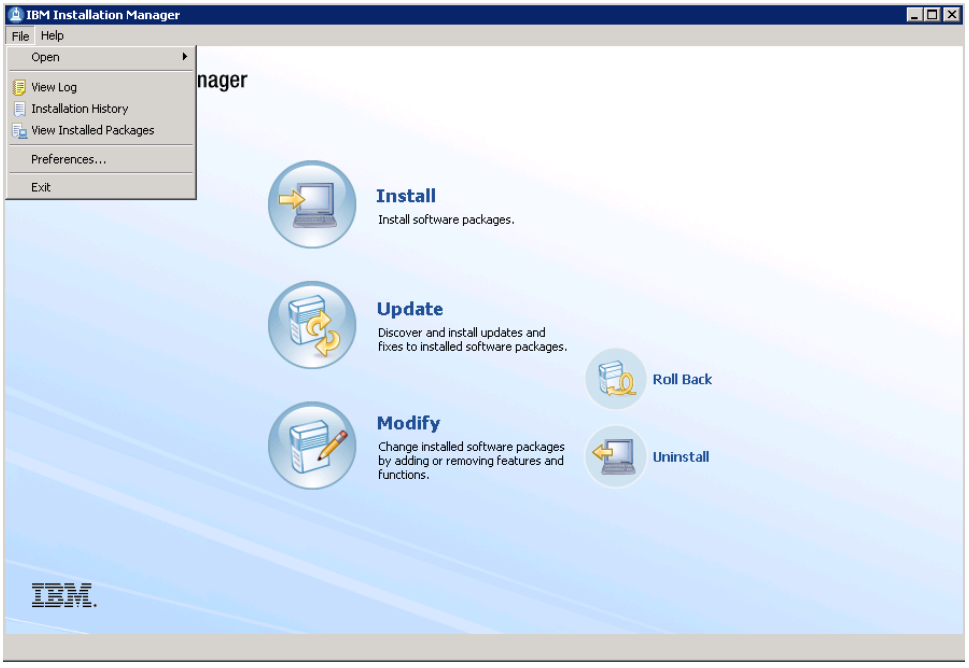
7.1.1 Graphical User Interface

If you are using the graphical user interface to install on a UNIX environment, verify the UNIX environment is configured to display a remote graphical user interface.

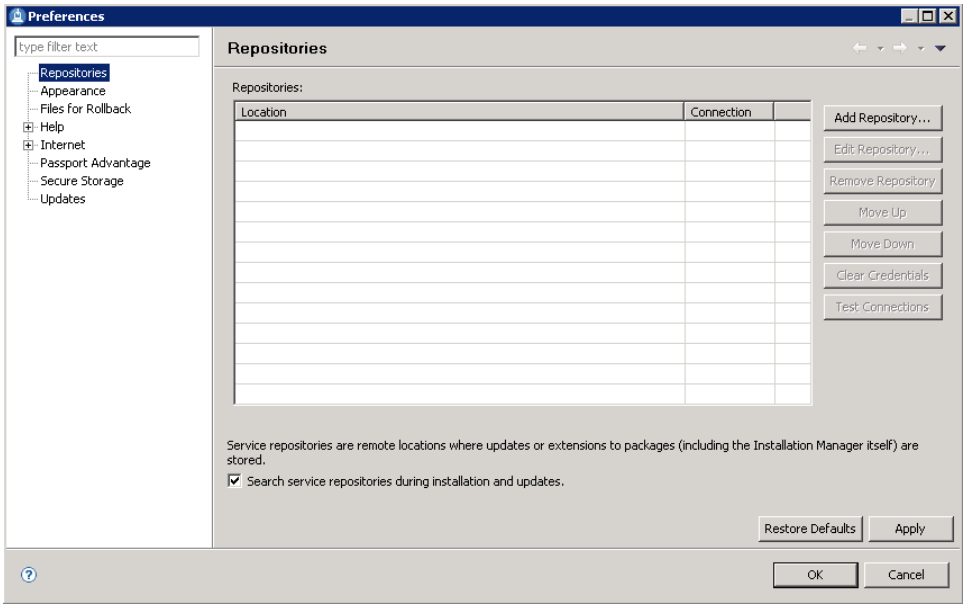
1. Login to the IBM Forms Experience Builder file system as an administrator/root
2. Run the **IBMIM** command to start the IBM Installation Manager

   Example:

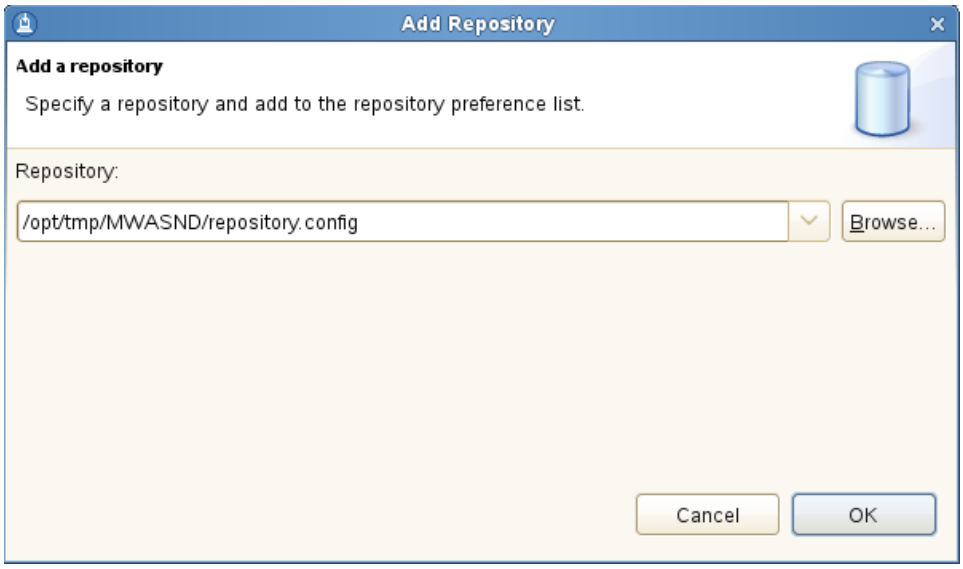
```
WIN     E:\IBM\InstallationManager\eclipse\IBMIM.exe
LINUX   /opt/IBM/InstallationManager/eclipse/IBMIM
AIX     /usr/IBM/InstallationManager/eclipse/IBMIM
```



3. Click Files > Preferences…



4. In the left menu, click Repositories
5. On the right side, click Add Repository…

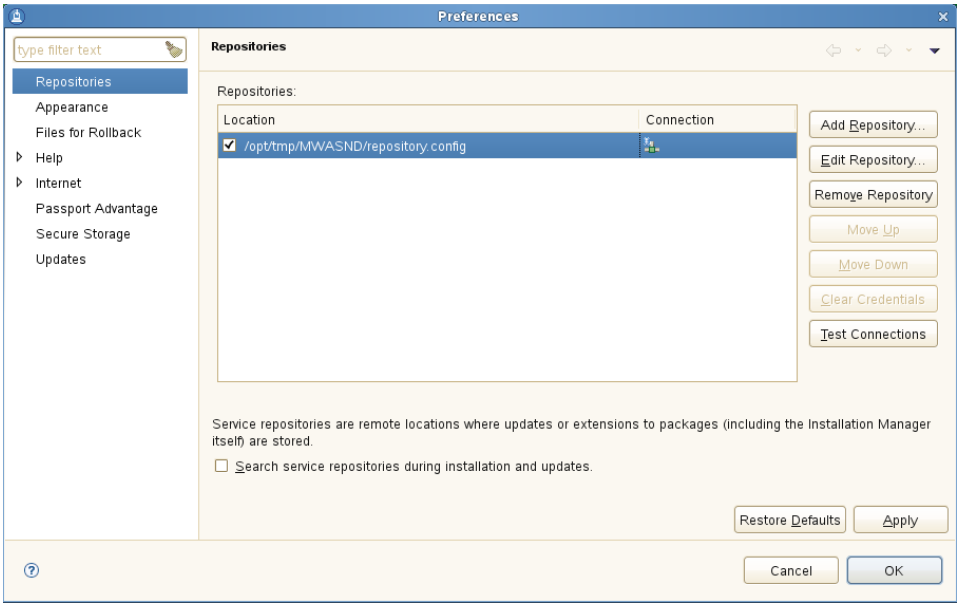


6. Browse-to/Enter the repository.config in the WebSphere Application Server media

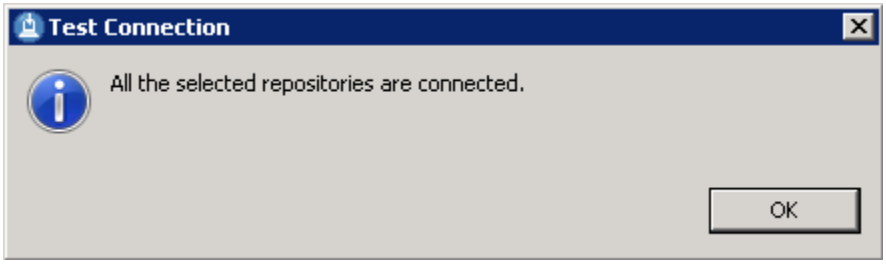
   Example:

```
WIN     F:\temp\MWASND\repository.config
LINUX   /opt/tmp/MWASND/repository.config
AIX     /usr/tmp/MWASND/repository.config
```

7. Click OK

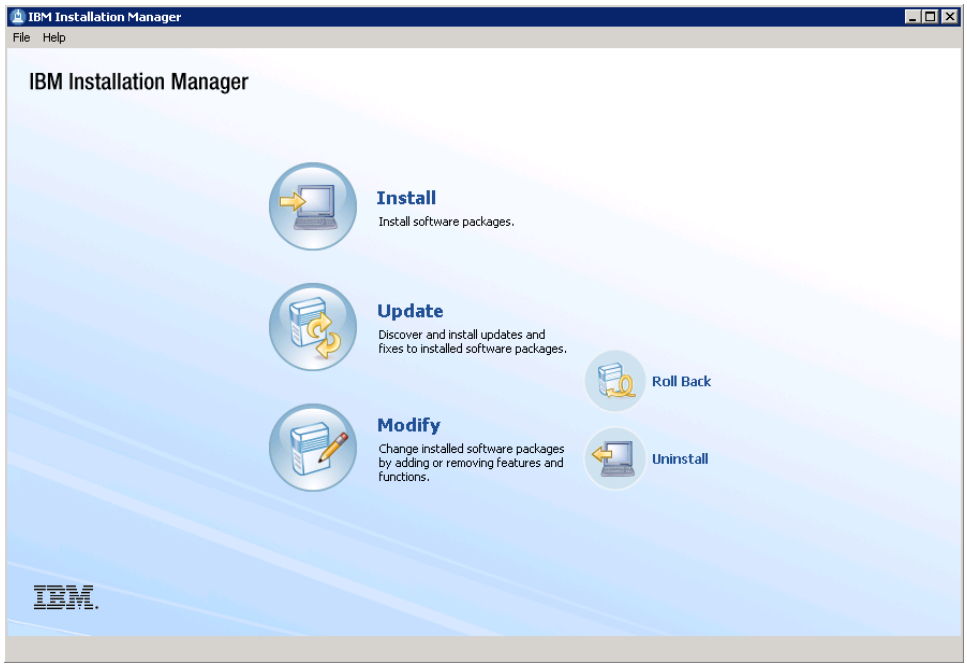


8. Click Test Connections

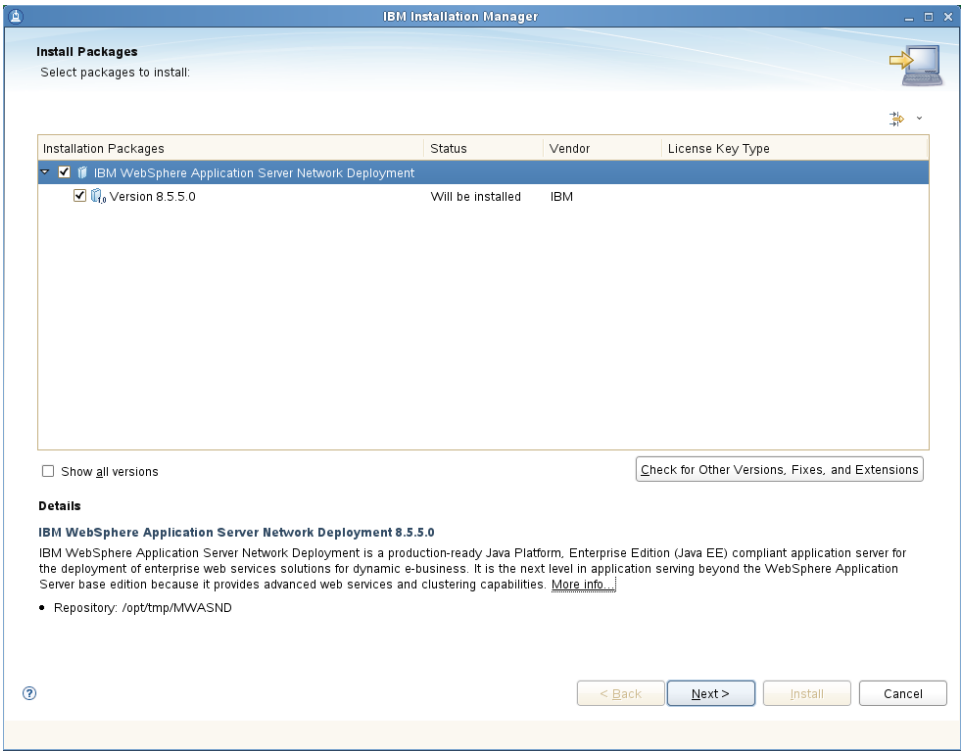


9. Verify the pop-up message “All the selected repositories are connected.” If the repositories can not be connected, update the repository locations and try again.

10. Click OK to close the message
11. Uncheck “Search service repositories during installation and updates.”
12. Click OK

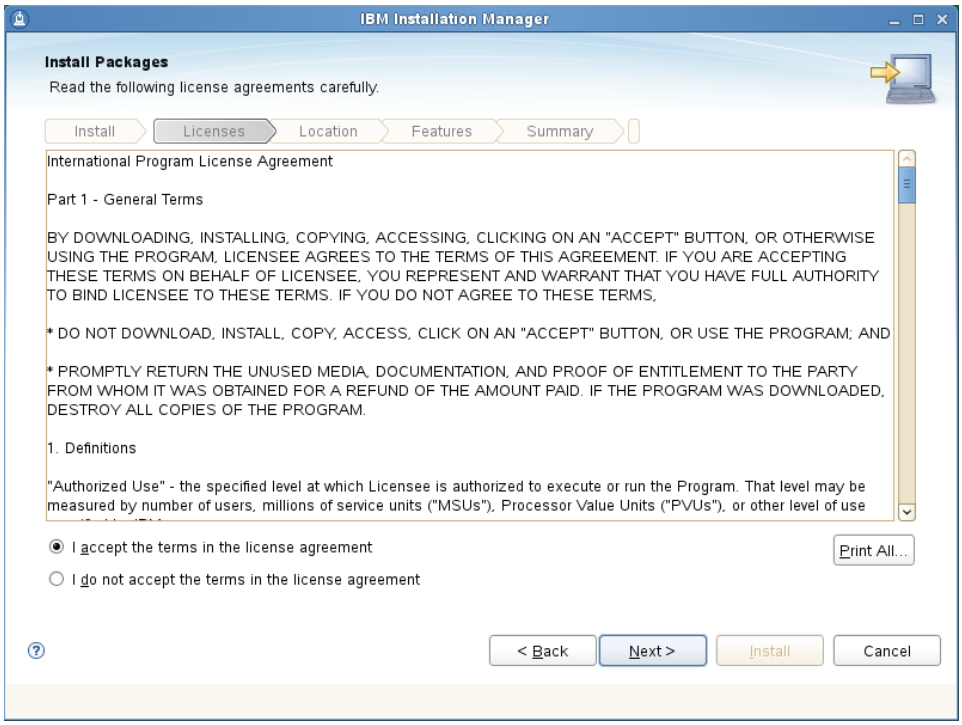


13. Click Install

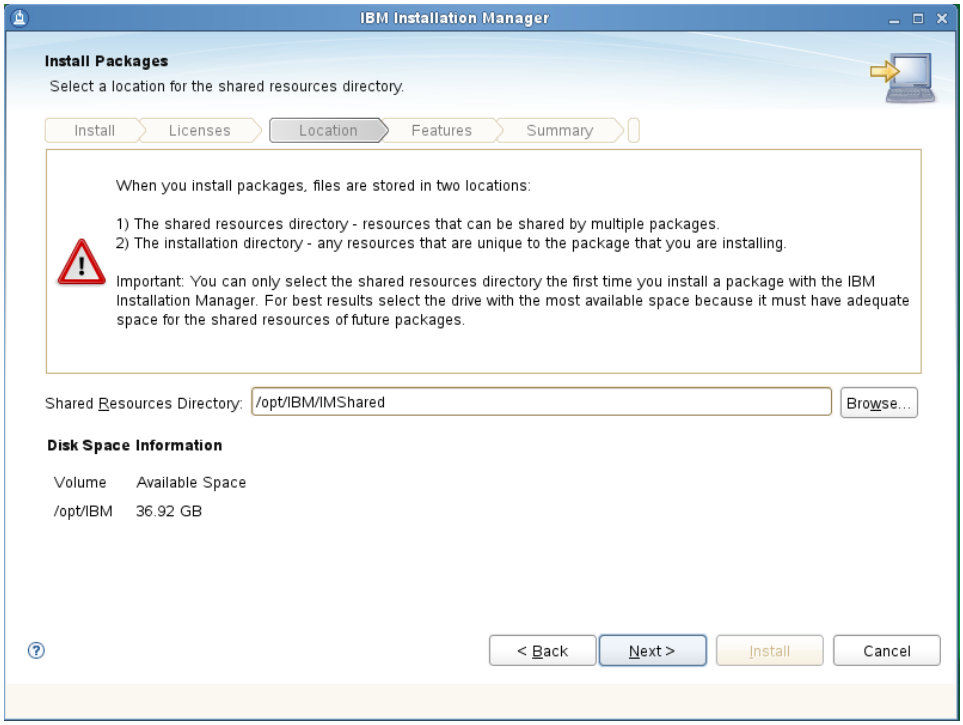


14. Check the checkbox by “IBM WebSphere Application Server Network Deployment”

15. Click Next



16. Review the International Program License Agreement
17. Select “I accept the terms in the license agreement”
18. Click Next



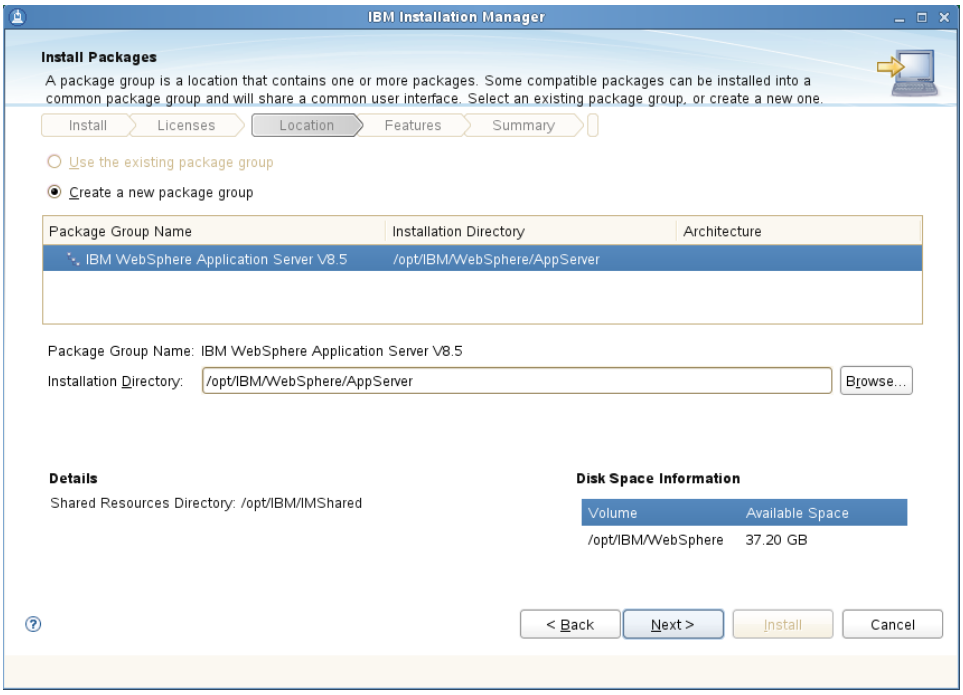
19. Browse-to/Enter the location of the Shared resource directory

SHARED_DIR = _____

Example:

```
WIN     E:\IBM\IMShared
LINUX   /opt/IBM/IMShared
AIX     /usr/IBM/IMShared
```

20. Click Next



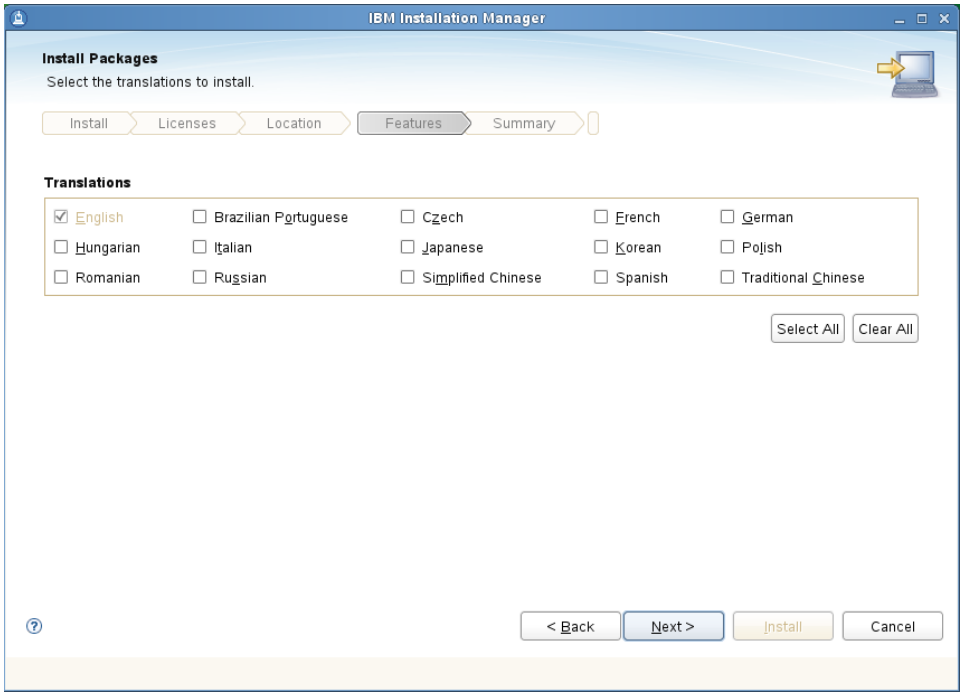
21. Under Package Group Name, click IBM WebSphere Application Server V8.5
22. Verify/Update the Installation Directory

WAS_HOME = _____

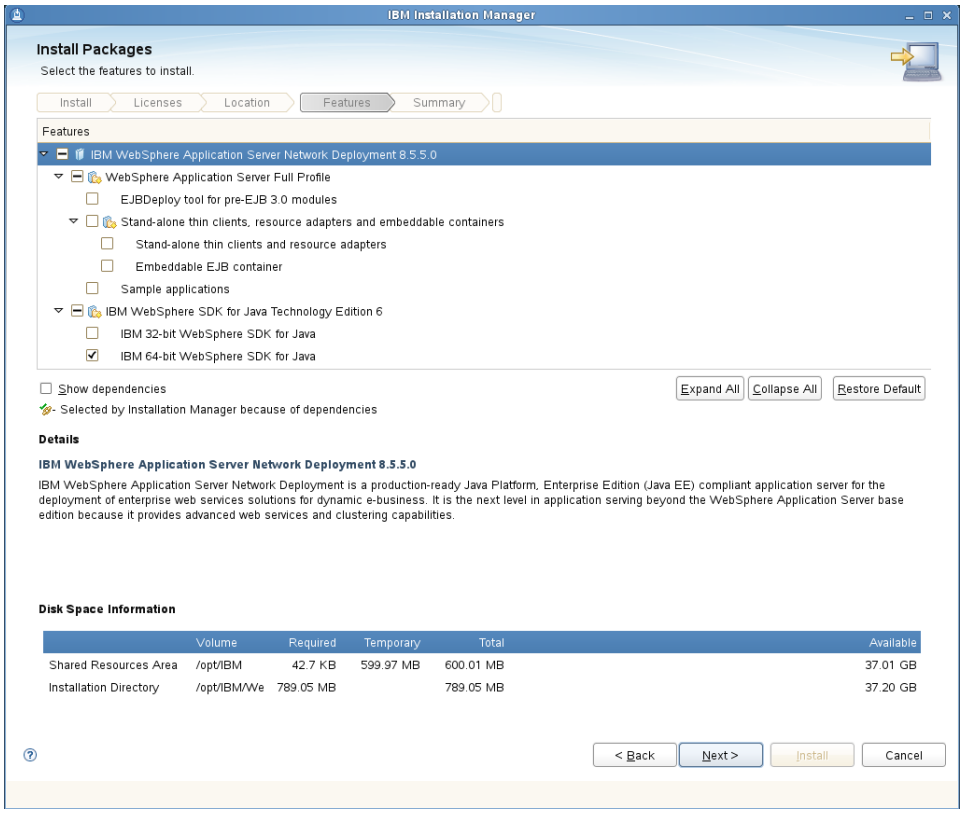
Example:

```
WIN     E:\IBM\WebSphere\AppServer
LINUX   /opt/IBM/WebSphere/AppServer
AIX     /usr/IBM/WebSphere/AppServer
```

23. Click Next



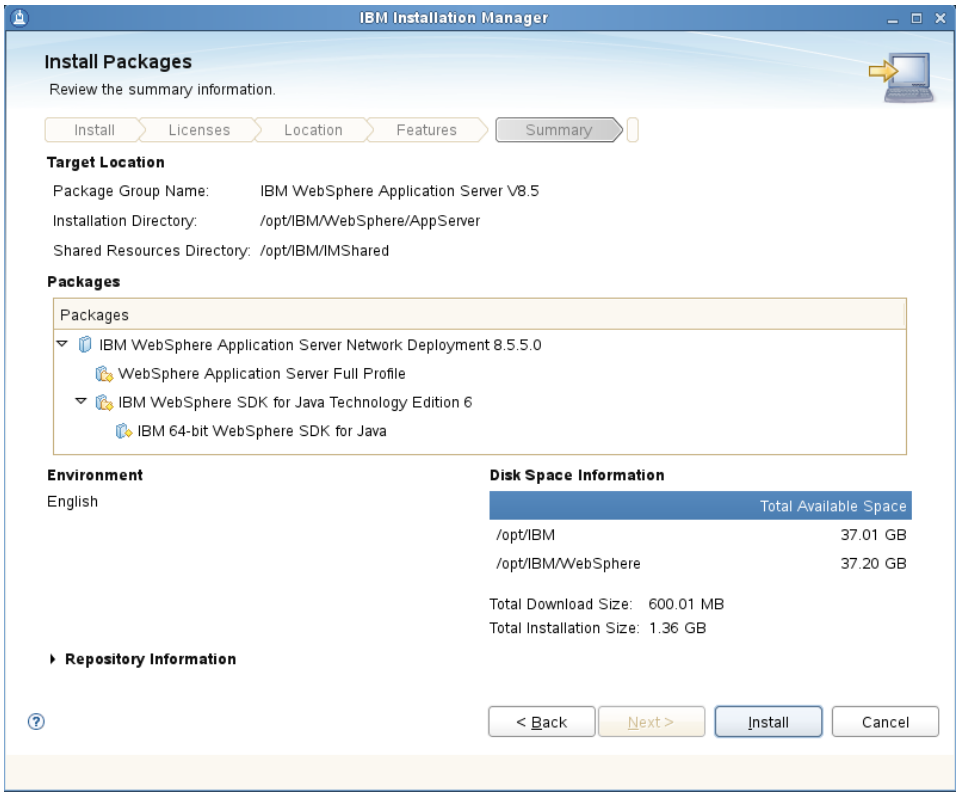
24. Click Next



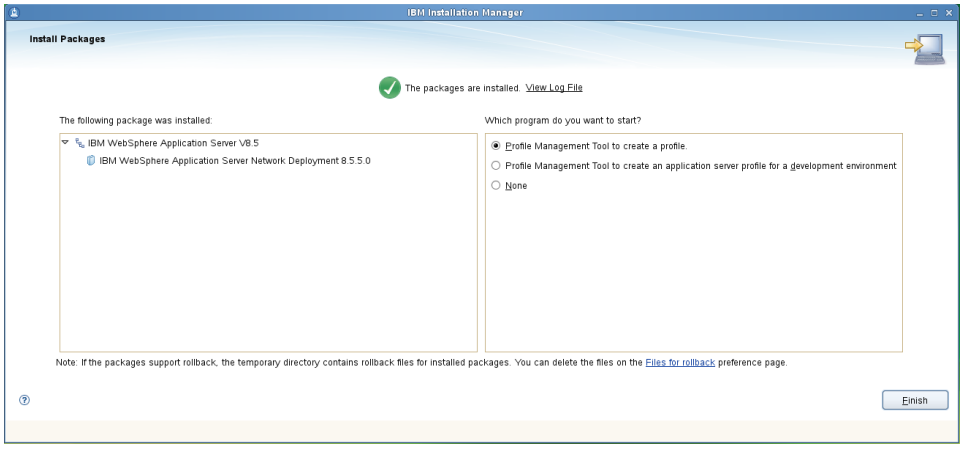
25. Verify “WebSphere Application Server Full Profile” is selected. The other features under “WebSphere Application Server Full Profile” is optional.

26. Verify the SDK for your specific platform bit installation is selected. In the example, “IBM 64-bit WebSphere SDK for Java” was selected.
    - On a 32-bit, select “IBM 32-bit WebSphere SDK for Java
    - On a 64-bit, select “IBM 64-bit WebSphere SDK for Java

27. Click Next



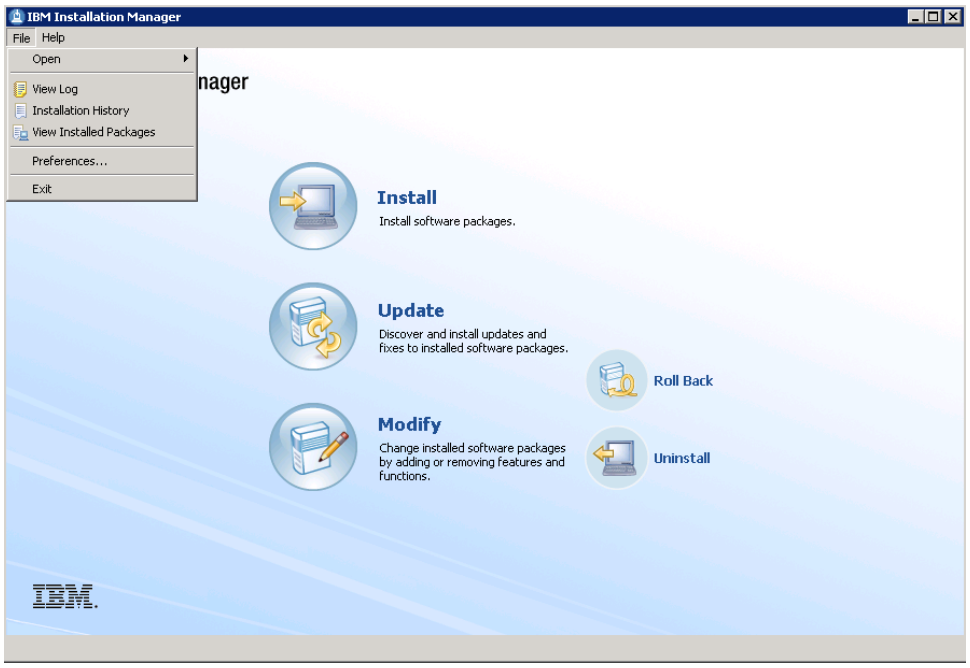
28. Review the summary information
29. Click Install



30. Verify there is a green check circle.

31. Select “None” if you want to create a profile at another time, other wise select “Profile Management Tool to create a profile”.

32. Click Finish



33. Click File
34. Click Exit

7.1.2 Command Line

1. Login to the IBM Forms Experience Builder file system as an administrator/root

2. Run the following command to install WebSphere Application Server

```
<IIM_HOME>/eclipse/tools/imcl install com.ibm.websphere.ND.v85 -
repositories <MWASND>/repository.config -installationDirectory
<WAS_HOME> -sharedResourcesDirectory <IMSHARED> -acceptLicense
```

Example WINDOWS:

```
E:\IBM\InstallationManager\eclipse\tools\imcl install
com.ibm.websphere.ND.v85 -repositories F:\temp\MWASND\repository.config
-installationDirectory E:\IBM\WebSphere\AppServer -
sharedResourcesDirectory E:\IBM\IMShared -acceptLicense
```

Example LINUX:

```
/opt/IBM/InstallationManager/eclipse/tools/imcl install
com.ibm.websphere.ND.v85 -repositories
/opt/tmp/MWASND/repository.config -installationDirectory
/opt/IBM/WebSphere/AppServer -sharedResourcesDirectory
/opt/IBM/IMShared -acceptLicense -sP
```

Example AIX:

```
/usr/IBM/InstallationManager/eclipse/tools/imcl install
com.ibm.websphere.ND.v85 -repositories
/usr/tmp/MWASND/repository.config -installationDirectory
/usr/IBM/WebSphere/AppServer -sharedResourcesDirectory
/usr/IBM/IMShared -acceptLicense
```

NOTE: Add -sP to the end of the command to display the progress of the installation.

```
                25%                50%                75%                100%
------------------|------------------|------------------|------------------|
..........................
```

3. Validate the Installation results

```
Installed com.ibm.websphere.ND.v85_8.5.5000.201305014_1044 to the
<WAS_HOME> directory.
```

Example WINDOWS:

```
Installed com.ibm.websphere.ND. v85_8.5.5000.201305014_1044 to the
E:\IBM\WebSphere\AppServer directory.
```

Example LINUX:

```
Installed com.ibm.websphere.ND. v85_8.5.5000.201305014_1044 to the
/opt/IBM/WebSphere/AppServer directory.
```

Example AIX:

```
Installed com.ibm.websphere.ND. v85_8.5.5000.201305014_1044 to the
/usr/IBM/WebSphere/AppServer directory.
```

7.2 Create Profile

Only one profile creation method is required

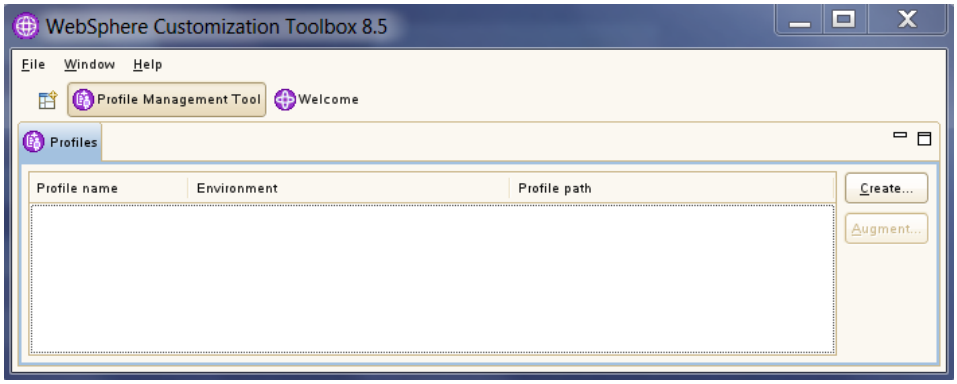
7.2.1 Graphical User Interface

If you are using the graphical user interface to install on a UNIX environment, verify the UNIX environment is configured to display a remote graphical user interface.

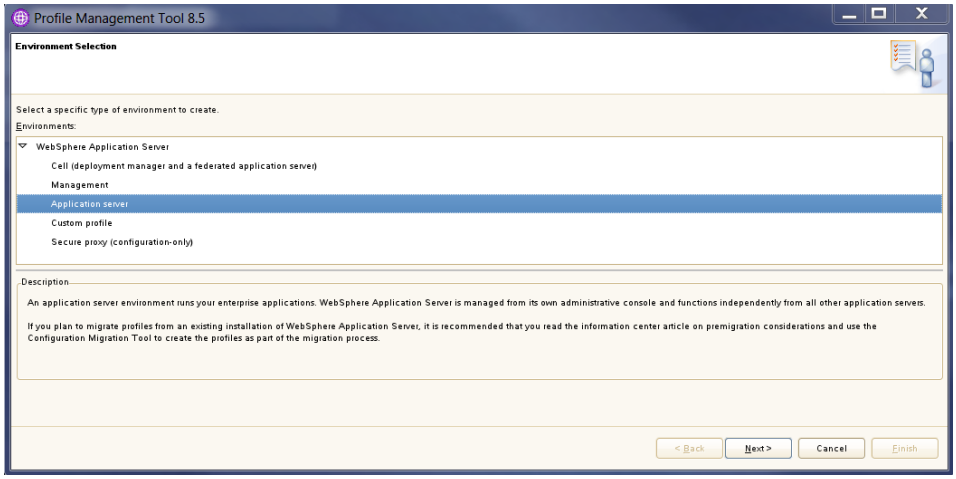
1. Start the Profile Manager Tool from the following options
   - Select “Profile Management Tool to create a profile” after the installation of WebSphere Application Server when using a GUI
   - pmt.exe or pmt.sh from the file system
     - WIN <*WAS_HOME*>\bin\ProfileManagement\pmt.bat
     - UNIX <*WAS_HOME*>/bin/ProfileManagement/pmt.sh

   Example:

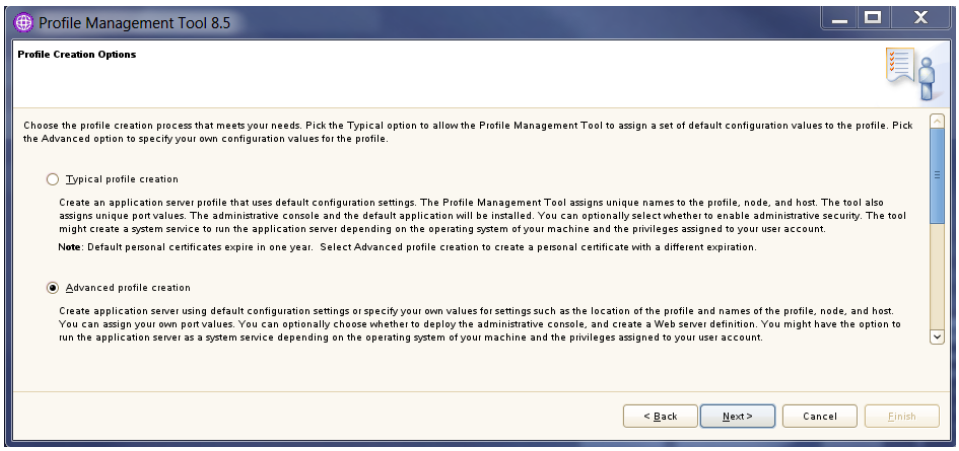
```
WIN     E:\IBM\WebSphere\AppServer\bin\ProfileManagement\pmt.bat
LINUX   /opt/IBM/WebSphere/AppServer/bin/ProfileManagement/pmt.sh
AIX     /usr/IBM/WebSphere/AppServer/bin/ProfileManagement/pmt.sh
```



2. Click Create

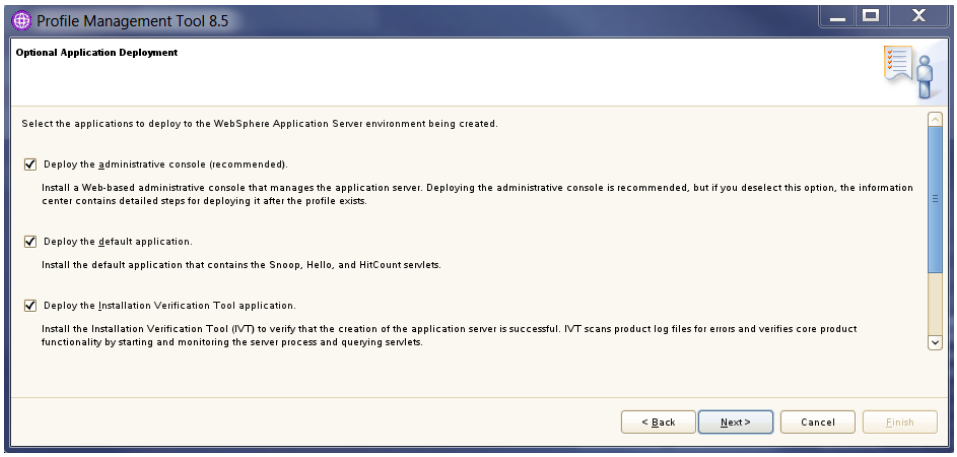


3. Select Application server
4. Click Next



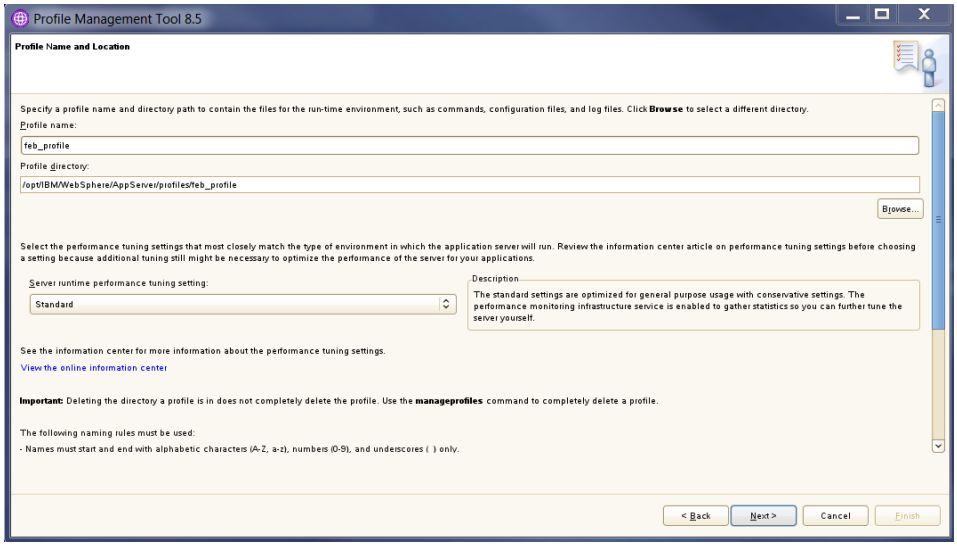
5. Select a type of profile creation. When selecting the "Typical profile creation", this will give the default settings. When selecting the "Advanced profile creation", this will give the ability for customization. In the example, "Advanced profile creation" was chosen.

6. Click Next



7. Verify "Deploy the administrative console" is checked. All other options are optional. In the example, the options were left by default.

8. Click Next



9. Verify/Enter the Profile name.

   Profile name: _____

   Example: `feb_profile`

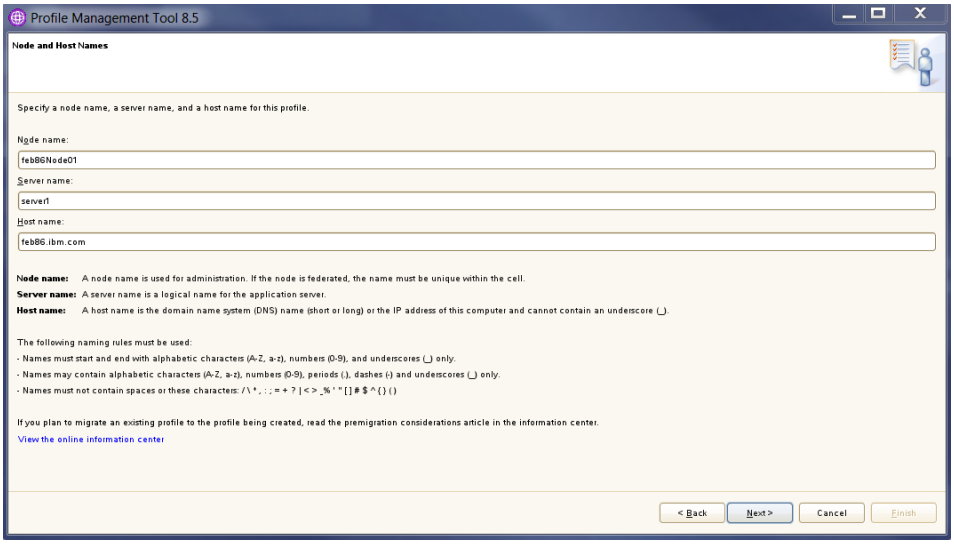
10. Verify/Enter the Profile directory.

    Profile directory: _____

    Example:

```
WIN     E:\IBM\WebSphere\AppServer\profiles\feb_profile
LINUX   /opt/IBM/WebSphere/AppServer/profiles/feb_profile
AIX     /usr/IBM/WebSphere/AppServer/profiles/feb_profile
```

11. Click Next



12. Enter/Verify the Node name for the environment. The recommendation is to have the nodename as short as possible.

    Node name: _____

    Example: `feb86Node01`

13. Enter/Verify the Server name for the environment.

    Server name: _____

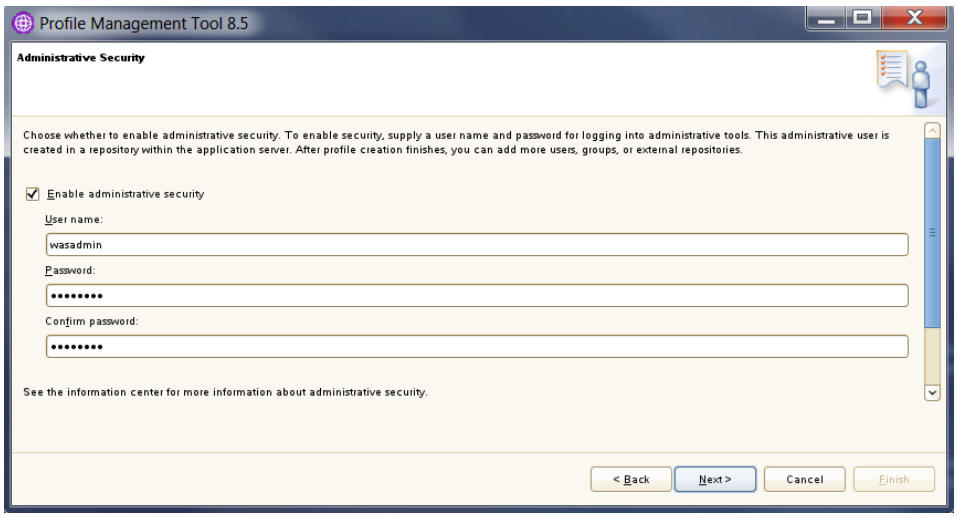
    Example: `server1`

14. Enter/verify the fully qualified host name for the environment.

    Host name: _____

    Example: `feb86.ibm.com`

15. Click Next



16. IBM Forms Experience Builder requires the WebSphere Application Server to be secured. Security does not have to be set during the profile creation. It can be secured to an external user repository after the profile is created. In the example, "Enable admistrative security" is enabled and a file base user repository will be created and configured to the WebSphere Application Server profile.

17. If "Enable administrative security" was checked, enter a User name used for the WebSphere Application administrator user. If a LDAP user repository will be configured to the WebSphere Application Server in the future, make sure the User name entered does not match a user id in the ldap.

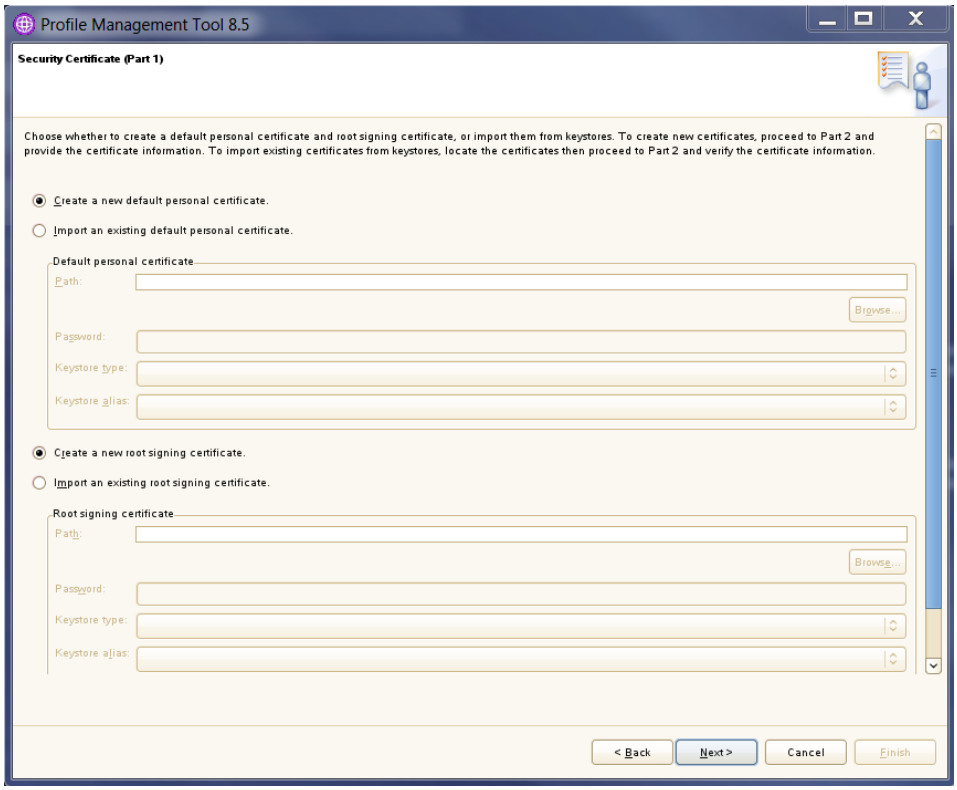
User name: _____

Example: `wasadmin`

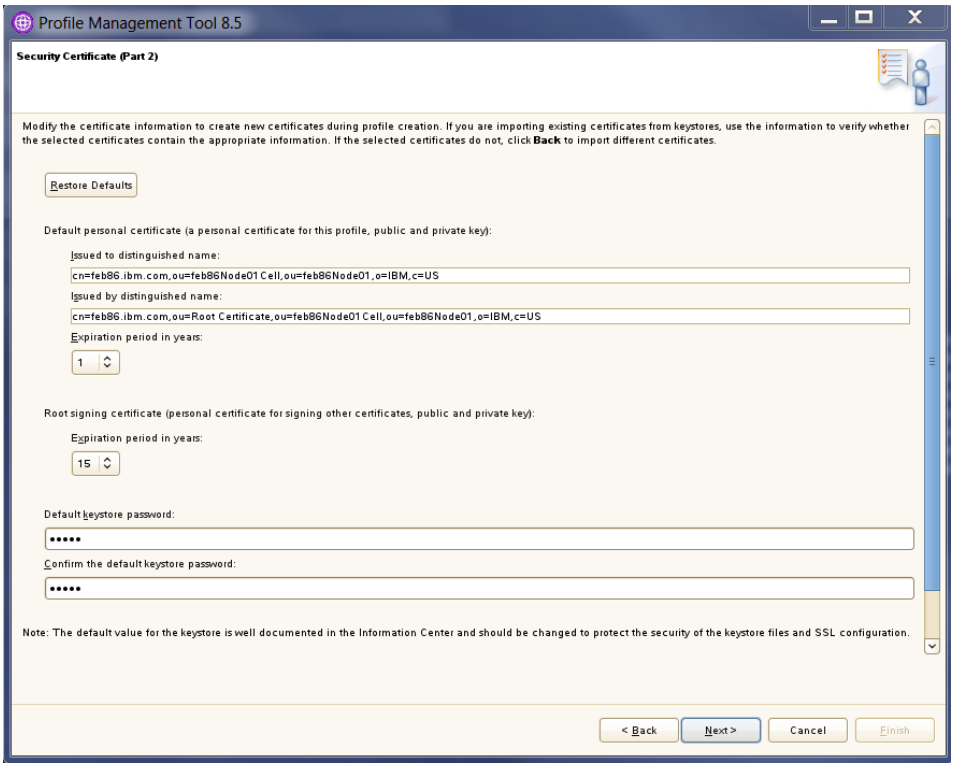
18. If “Enable administrative security” was checked, enter the password for the User name in the “Password” and “Confirm password” field.

    Password: _____

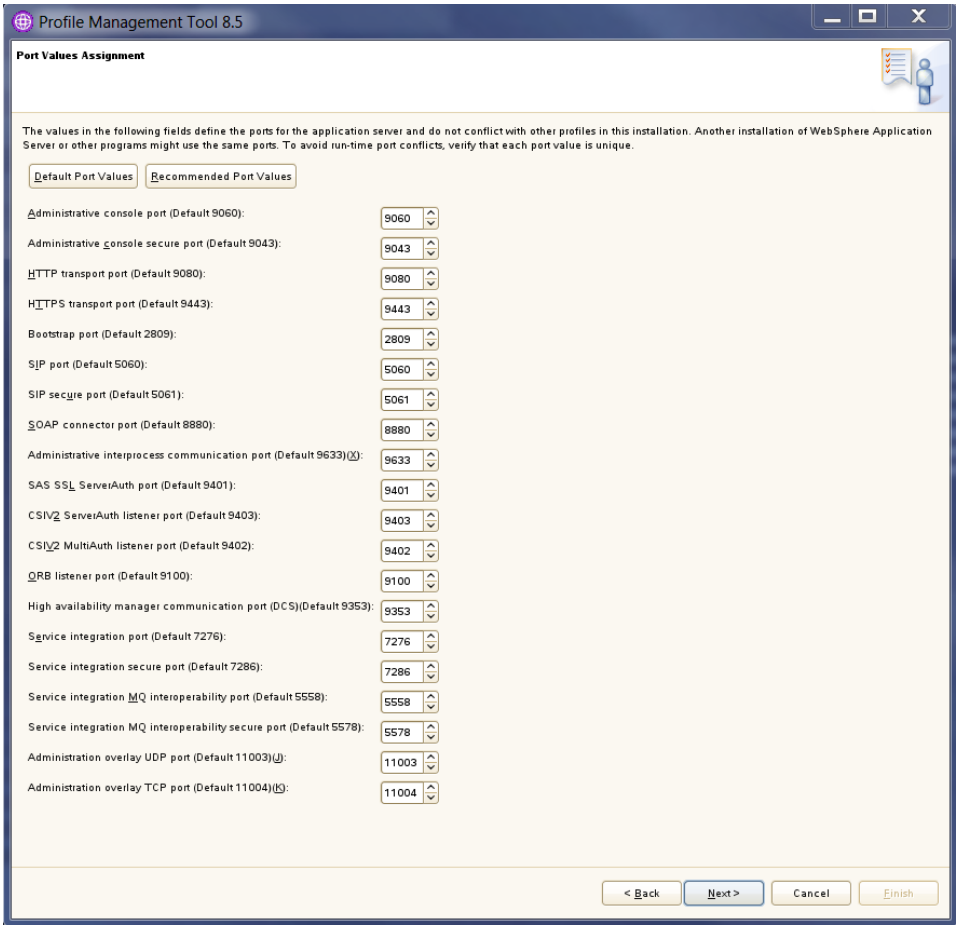
19. Click Next



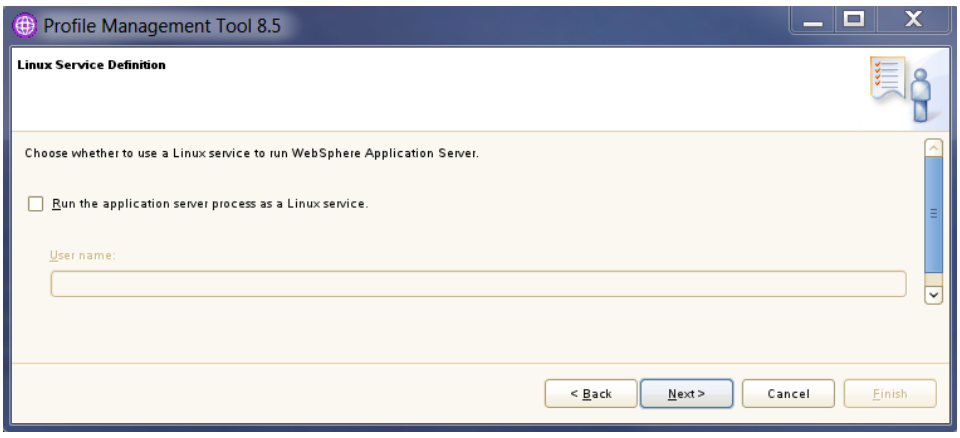
20. Signing certificates can be imported for the profile if this is a requirement. Otherwise, Click Next



21. The certificate information can be updated at this time if required.
22. Click Next

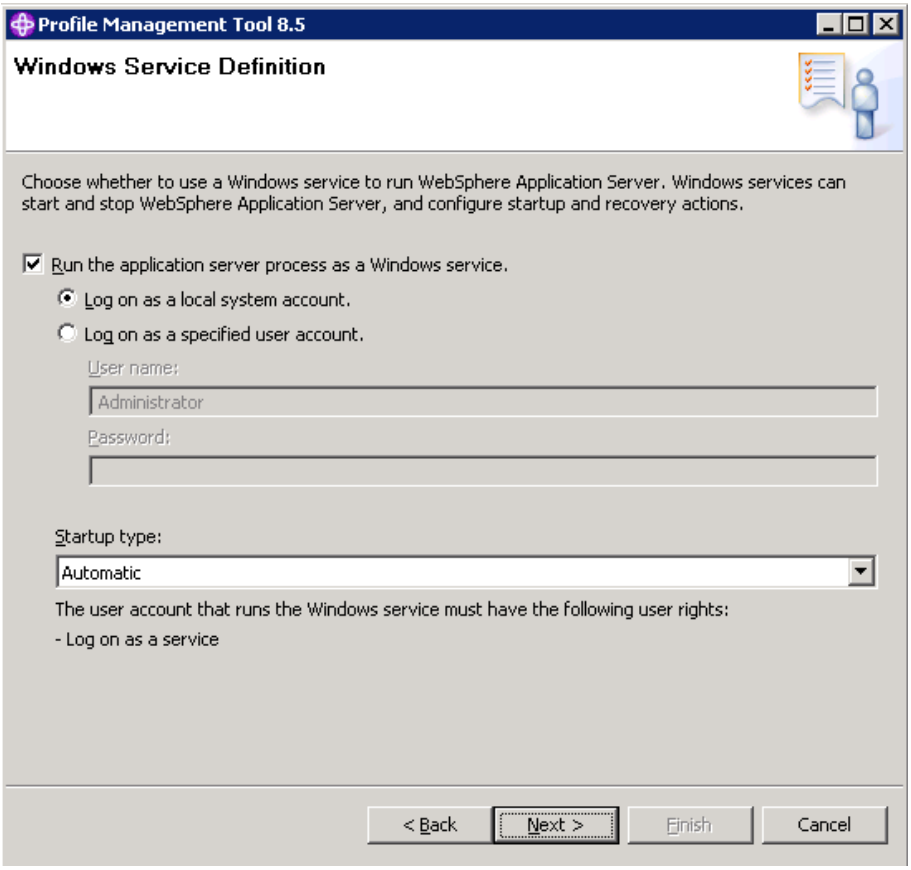


23. If there are any requirements for ports, the ports can be updated at this time.
24. Click Next



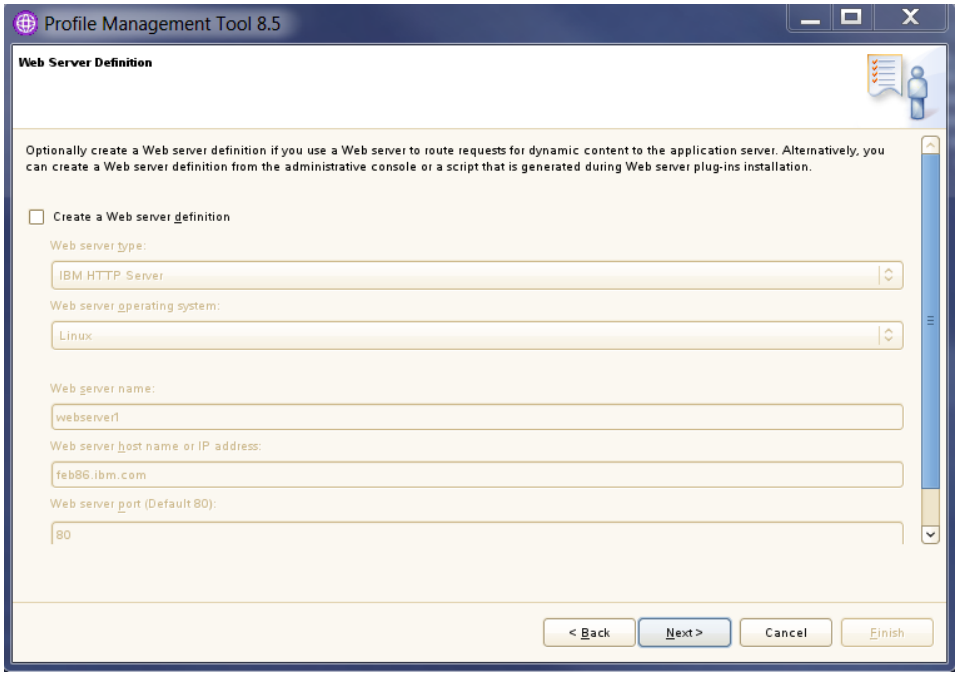
25. If installing on Linux, by default the “Run the application server process as a Linux service” is unchecked. This is optional if checked/unchecked.
    - If security is not enabled on the profile.
    - If the WebSphere Application Server administrator user or password will be changed.

26. Click Next



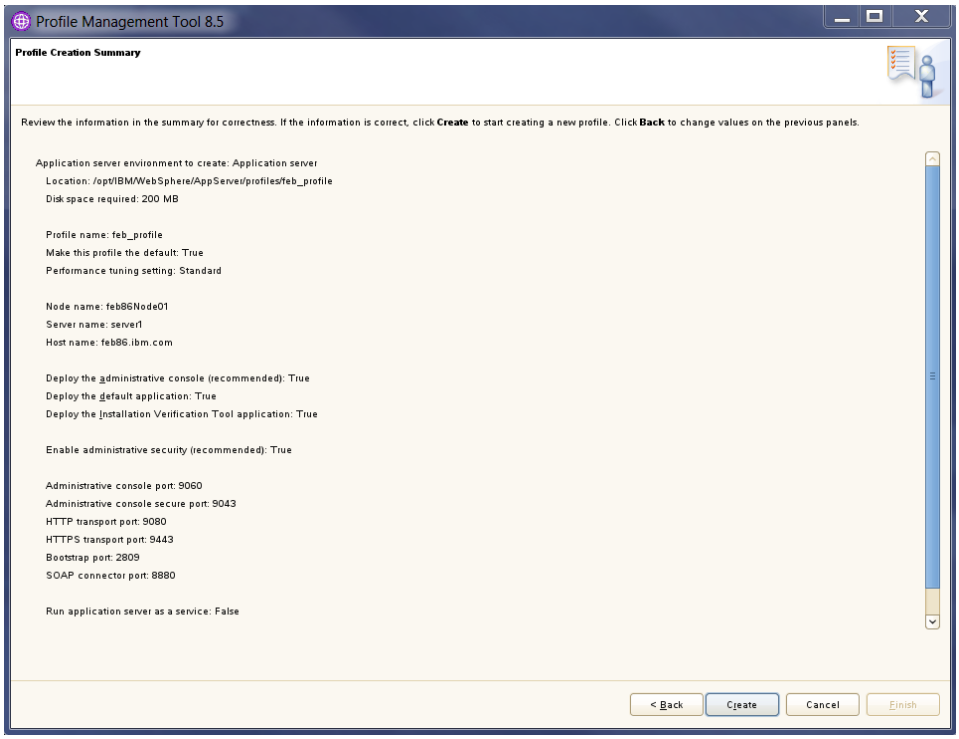
27. If installing on Windows, by default the "Run the application server process as a Windows service" is checked. Leaving it checked will start the WebSphere Application Server server after a restart of the operating system. Uncheck "Run the application server process as a Window servcice" if any of the following is met.
    - If security is not enabled on the profile.
    - If the WebSphere Application Server administrator user or password will be changed.

28. Click Next



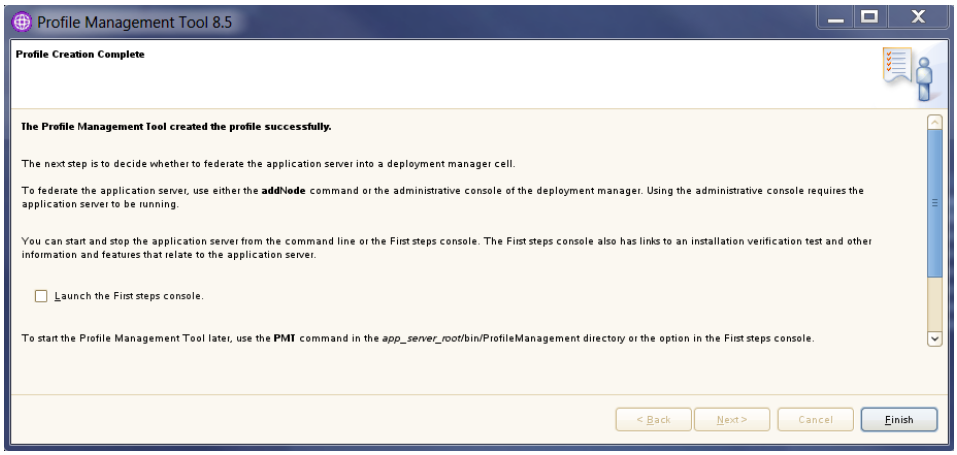
29. By default, “Create a Web server definition” is unchecked. If a webserver is already installed, checking “Create a Web server definition” can be set with the correct information. There may be other required steps needed to complete the WebServer Definition that will not be covered in this document. A webserver can be installed and setup at another time if required.

30. Click Next



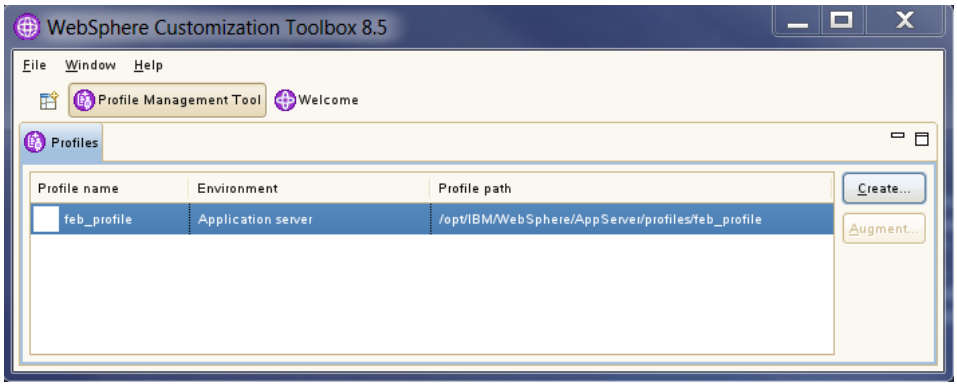
31. Review the Summary information. If anything is incorrect, click back and fix the problem.

32. If everything is correct, click Create



33. By default, “Launch the First steps console” were checked. In the example, uncheck “Launch the First steps console” was done because it was not required for the completion of the profile.

34. Click Finish



7.2.2 Command Line

1. Login to the IBM Forms Experience Builder file system
2. Run the following command to create a standalone profile

```
<WAS_HOME>/bin/manageprofiles.(bat/sh) -create -templatePath
<WAS_HOME>/profileTemplates/default -profileName <PROFILE_NAME>  -
profilePath <PROFILE_PATH> -enableAdminSecurity true -adminUserName
<WASADMIN> -adminPassword <WASPWD>
```

NOTE: Other options can be used to customize the profile

```
        -cellName <CellName>
        -nodeName <NodeName>
        -enableAdminSecurity true
                -adminUserName <WASADMIN>
                -adminPassword <WASPWD>
```

IBM Forms Experience Builder requires the WebSphere Application Server to be secured. Security does not have to be set during the profile creation but will be required before installing IBM Forms experience Builder. It can be secured to an external user repository after the profile is created. In the example below, enabling security will be set during profile creation.

Example: WINDOWS

```
E:\IBM\WebSphere\AppServer\bin\manageprofiles.bat -create -templatePath
E:\IBM\WebSphere\AppServer\profileTemplates\default -profileName
feb_profile -profilePath
E:\IBM\WebSphere\AppServer\profiles\feb_profile -enableAdminSecurity
true -adminUserName wasadmin -adminPassword XXXX
```

Example: LINUX

```
/opt/IBM/WebSphere/AppServer/bin/manageprofiles.sh -create -
templatePath /opt/IBM/WebSphere/AppServer/profileTemplates/default -
profileName feb_profile -profilePath
/opt/IBM/WebSphere/AppServer/profiles/feb_profile -enableAdminSecurity
true -adminUserName wasadmin -adminPassword XXXX
```

Example: AIX

```
/usr/IBM/WebSphere/AppServer/bin/manageprofiles.sh -create -
templatePath /usr/IBM/WebSphere/AppServer/profileTemplates/default -
profileName feb_profile -profilePath
/usr/IBM/WebSphere/AppServer/profiles/feb_profile -enableAdminSecurity
true -adminUserName wasadmin -adminPassword XXXX
```

3. Verify the results

```
INSTCONFSUCCESS: Success: Profile feb_profile now exists. Please
consult <WAS_HOME>/profiles/feb_profile/logs/AboutThisProfile.txt for
more information about this profile.
```

Example: WINDOWS

```
INSTCONFSUCCESS: Success: Profile feb_profile now exists. Please
consult
E:\IBM\WebSphere\AppServer\profiles\feb_profile\logs\AboutThisProfile.t
xt for more information about this profile.
```

Example: LINUX

```
INSTCONFSUCCESS: Success: Profile feb_profile now exists. Please
consult
/opt/IBM/WebSphere/AppServer/profiles/feb_profile/logs/AboutThisProfile
.txt for more information about this profile.
```

Example: AIX

```
INSTCONFSUCCESS: Success: Profile Afeb_profile now exists. Please
consult
/usr/IBM/WebSphere/AppServer/profiles/feb_profile/logs/AboutThisProfile
.txt for more information about this profile.
```

8 IBM Forms Experience Builder

8.1 Install

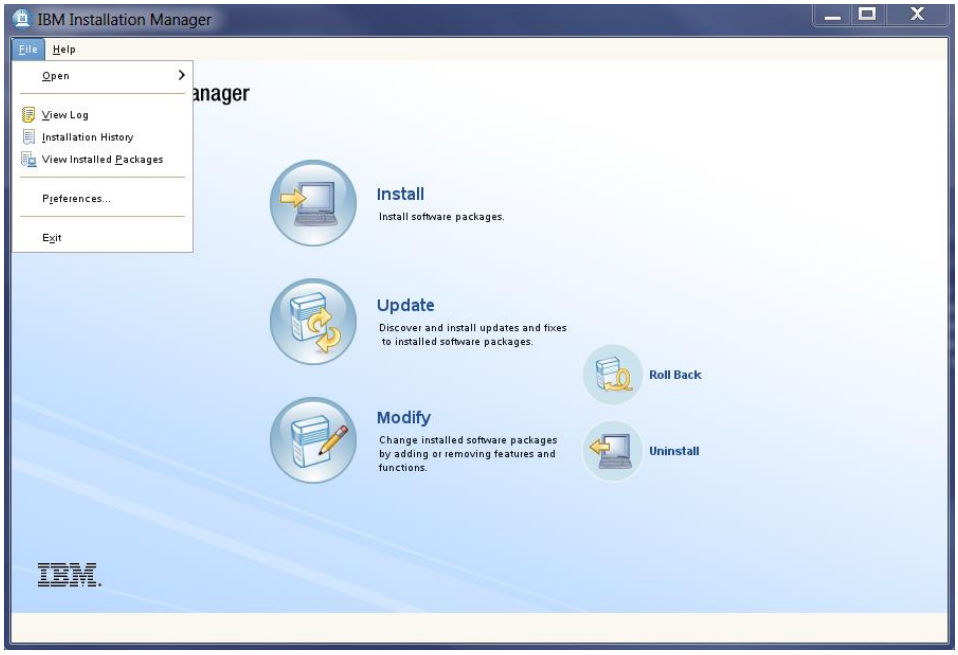
If you are using the graphical user interface to install on a UNIX environment, verify the UNIX environment is configured to display a remote graphical user interface.

1. Login to the IBM Forms Experience Builder file system as an administrator/root
2. Start the Installation Manager

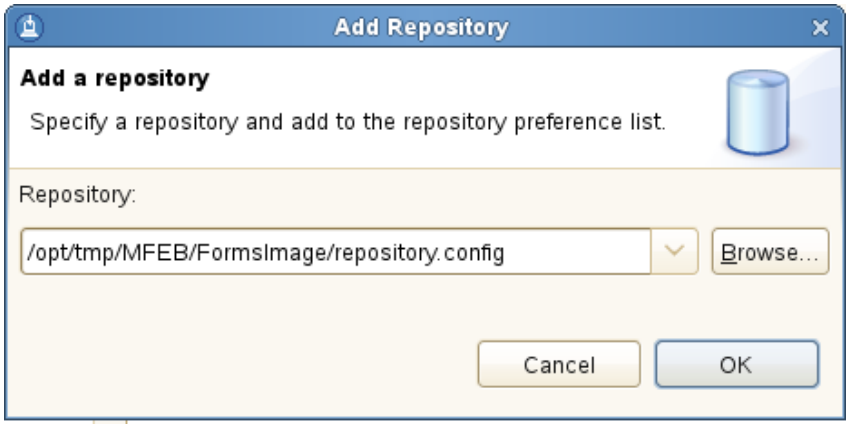
```
<IIM>/eclipse/IBMIM
```

Example:

```
WIN     E:\IBM\InstallationManager\eclipse\IBMIM
LINUX   /opt/IBM/InstallationManager/eclipse/IBMIM
AIX     /usr/IBM/InstallationManager/eclipse/IBMIM
```



3. Select File > Preferences…
4. Remove or uncheck all Repository
5. Click Add Repository…



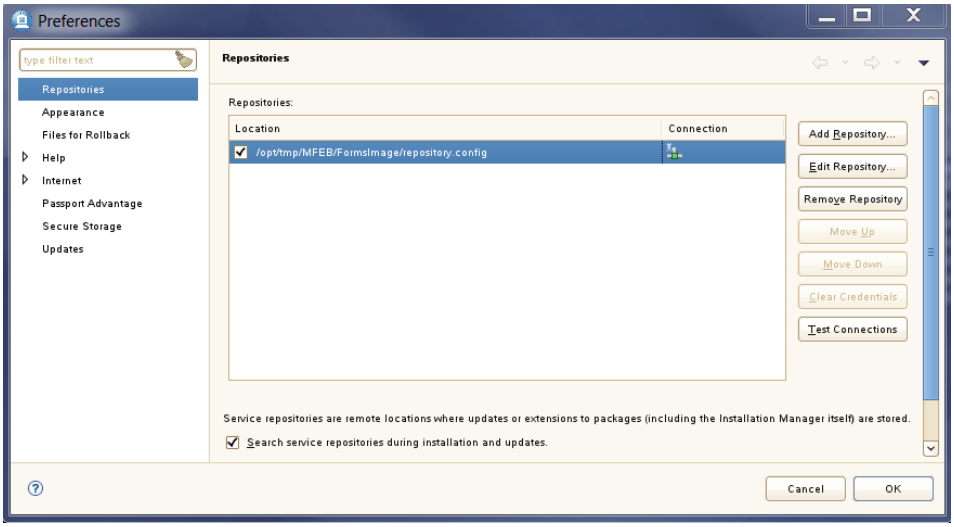
6. Enter/Browse to the repository.config of the IBM Forms Experience Builder located in the FormsImage of the media files

```
<MFEB>/FormsImage/repository.config
```

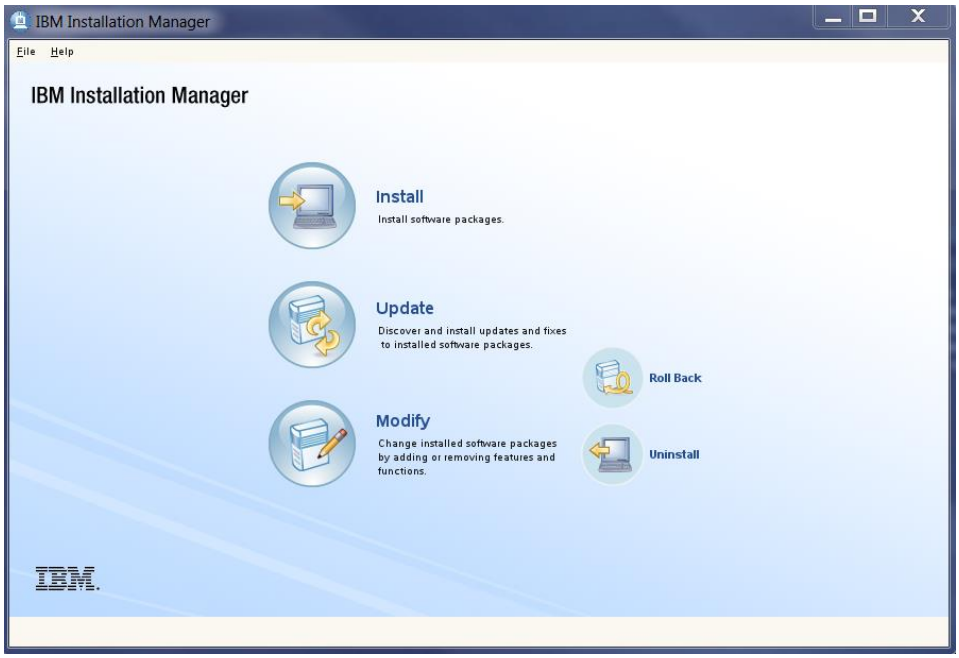
Example

```
WIN     F:\MFEB\FormsImage\repository.config
LINUX   /opt/tmp/MFEB/FormsImage/repository.config
AIX     /usr/tmp/MFEB/FormsImage/repository.config
```

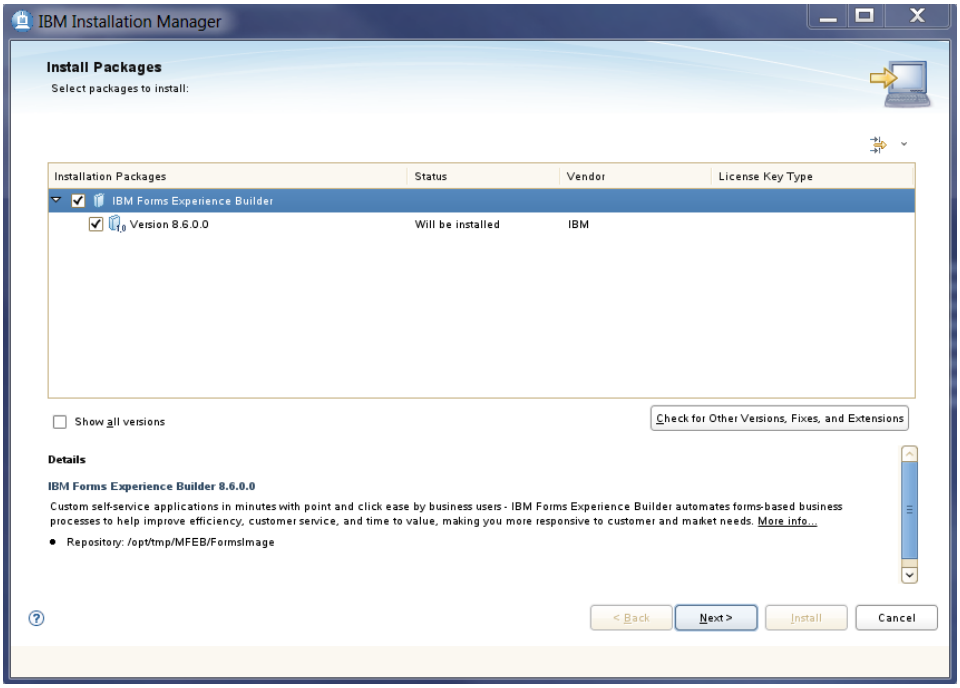
7. Click OK



8. Click OK



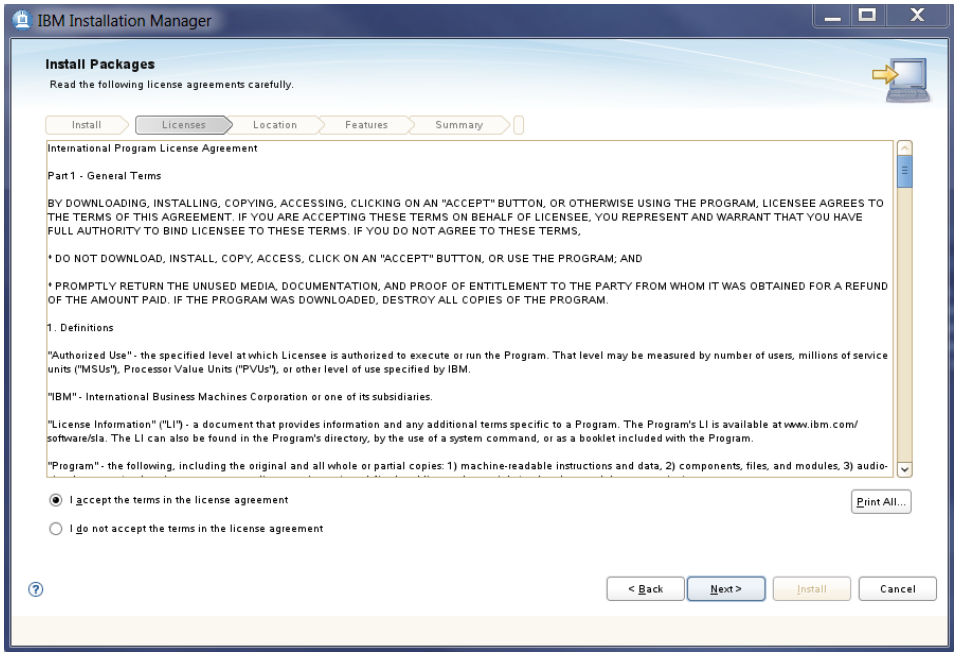
9. Click Install



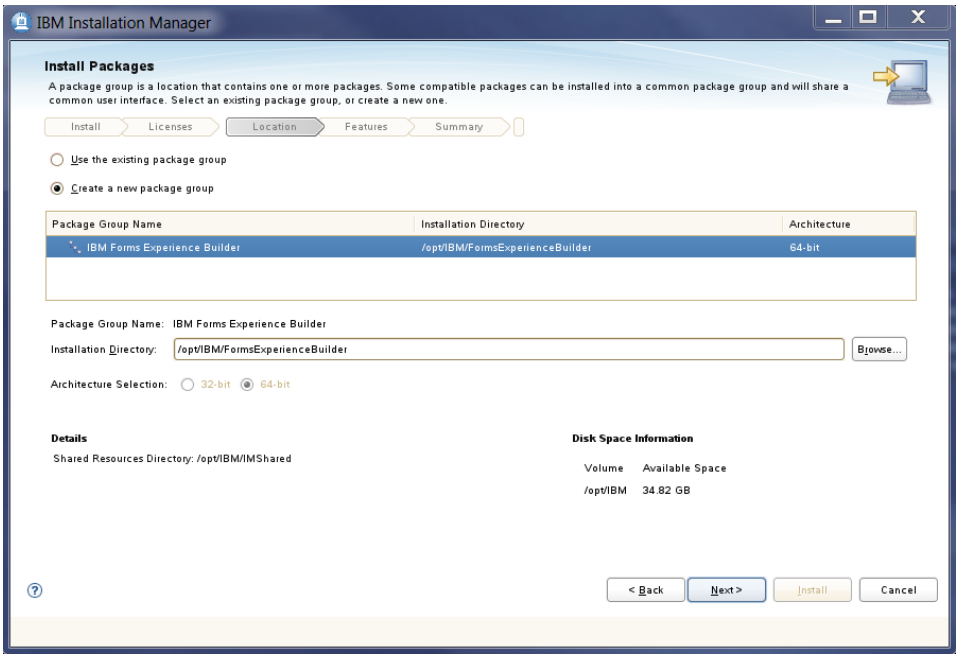
10. Under Installation Packages, check the following

```
IBM Forms Experience Builder
   Version 8.6.0.0
```

11. Click Next



12. Review the “International Program License Agreement”
13. Select “I accept the terms in the license agreement”
14. Click Next



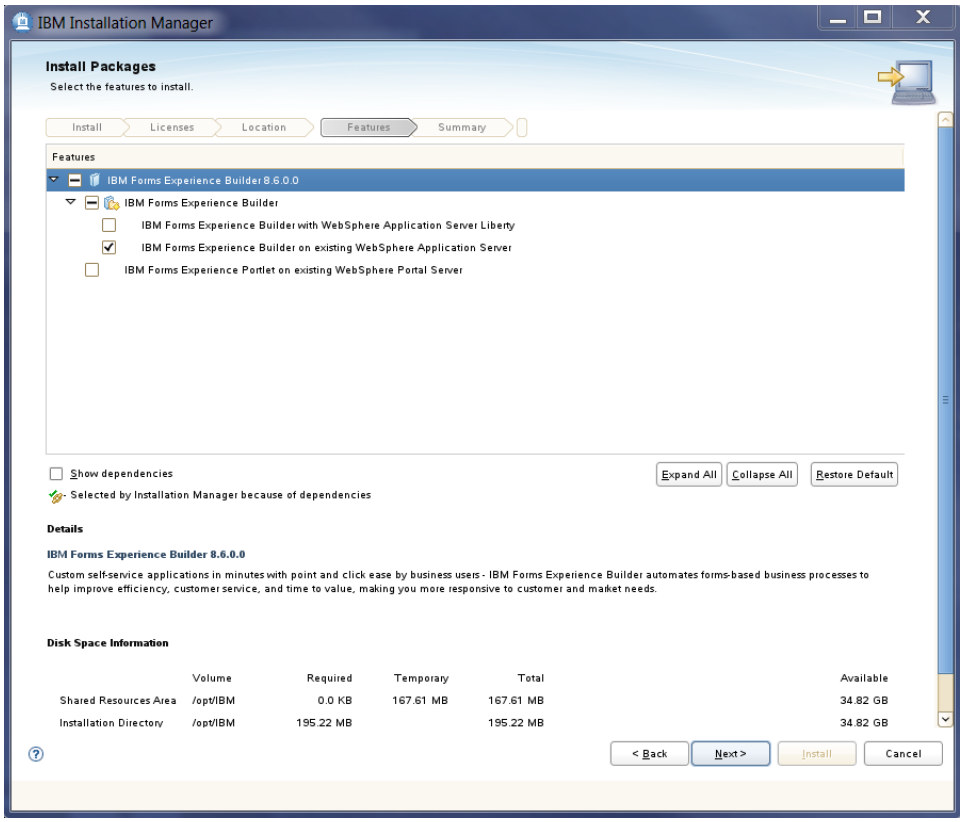
15. Under “Package Group Name”, select “IBM Forms Experience Builder”
16. Enter/Verify the installation directory for the IBM Forms Experience Builder

Installation Directory: _____

Example:

```
WIN     E:\IBM\FormsExperienceBuilder
LINUX   /opt/IBM/FormsExperienceBuilder
AIX     /usr/IBM/FormsExperienceBuilder
```

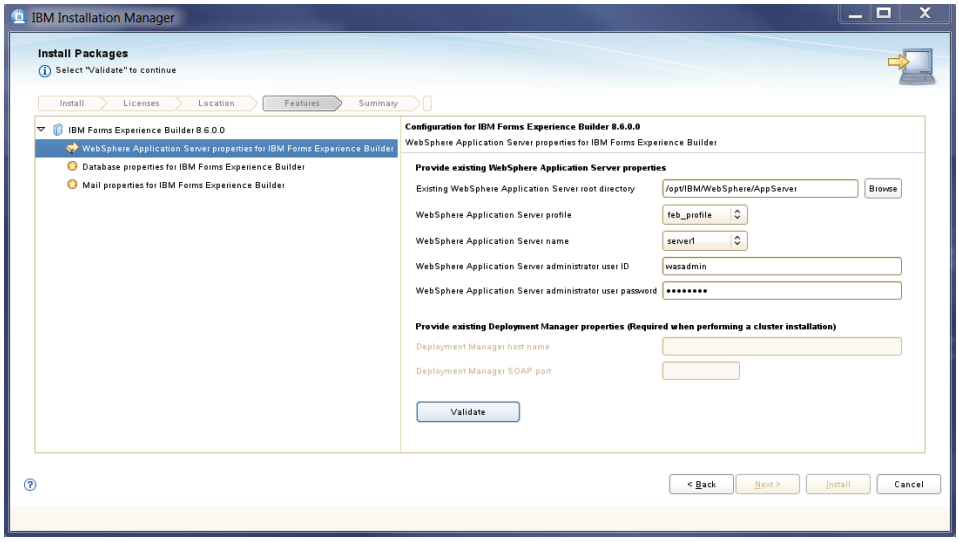
17. Click Next



18. Check/Verify the following Features

```
IBM Forms Experience Builder 8.6.0.0
   IBM Forms Experience Builder
      IBM Forms Experience Builder on existing WebSphere Application
      Server
```

19. Click Next



20. Verify/Browse to the WebSphere Application Server root directory

    Example:

```
WIN     E:\IBM\WebSphere\Appserver
LINUX   /opt/IBM/WebSphere/AppServer
AIX     /usr/IBM/WebSphere/AppServer
```

21. Select the WebSphere Application Server profile. This was created during the profile creation

    Example: `feb_profile`

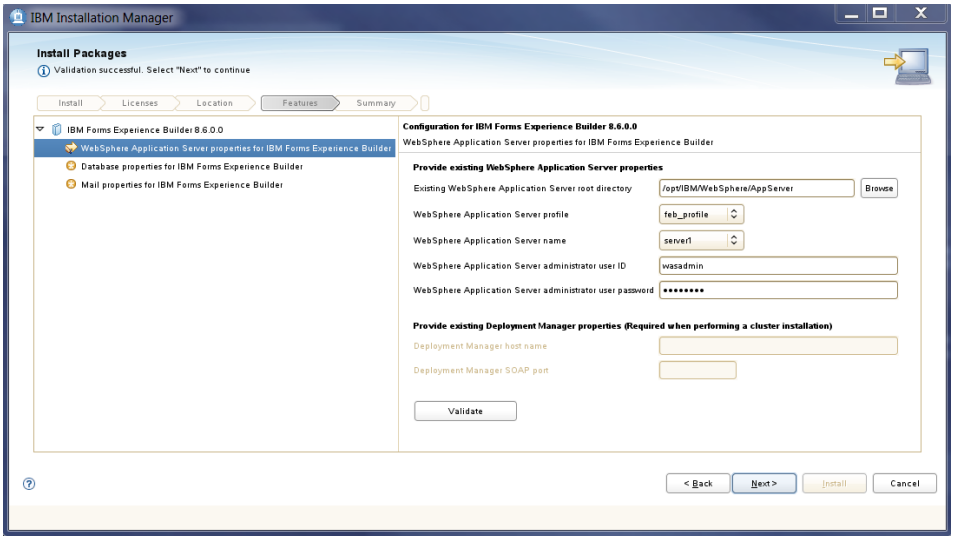
22. Select the WebSphere Application Server name. This was created during the profile creation

    Example: `server1`

23. Enter the WebSphere Application Server Administrator User ID and password

    Example: `wasadmin/XXXX`

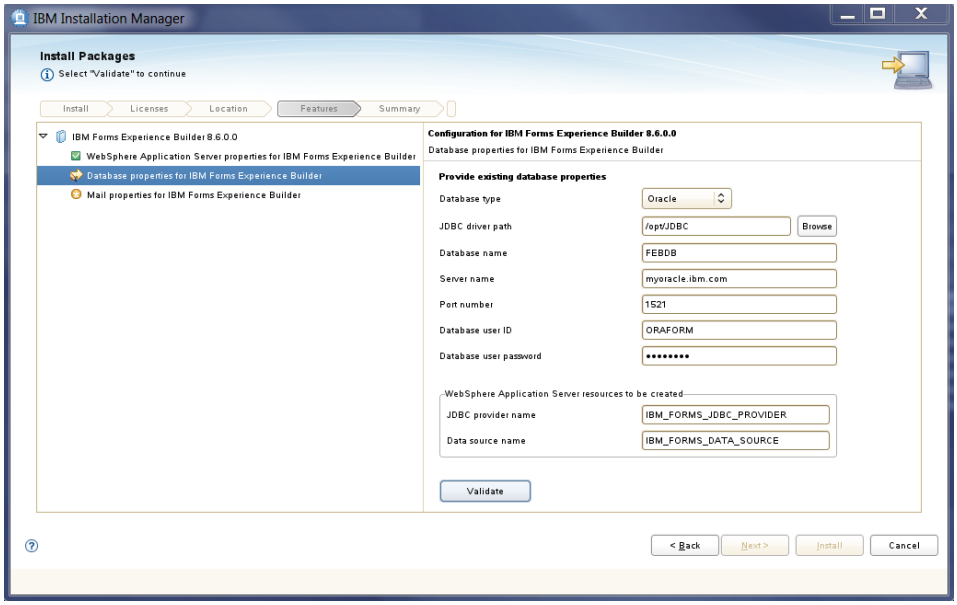
24. Click Validate



25. After the Validate is complete, the following message will appear under the "Install Packages" title

```
Validation successful. Select "Next" to continue
```

26. Click Next



27. Database type, select Oracle

28. JDBC driver path, Browse to the Oracle driver directory

    Example:

```
WIN     E:\JDBC
LINUX   /opt/JDBC
AIX     /usr/JDBC
```

29. Database name, enter the database name

    Example: `FEBDB`

30. Server name, enter the Oracle database server name

    Example: `myoracle.ibm.com`

31. Port number, enter the Oracle port. By default it is 1521.

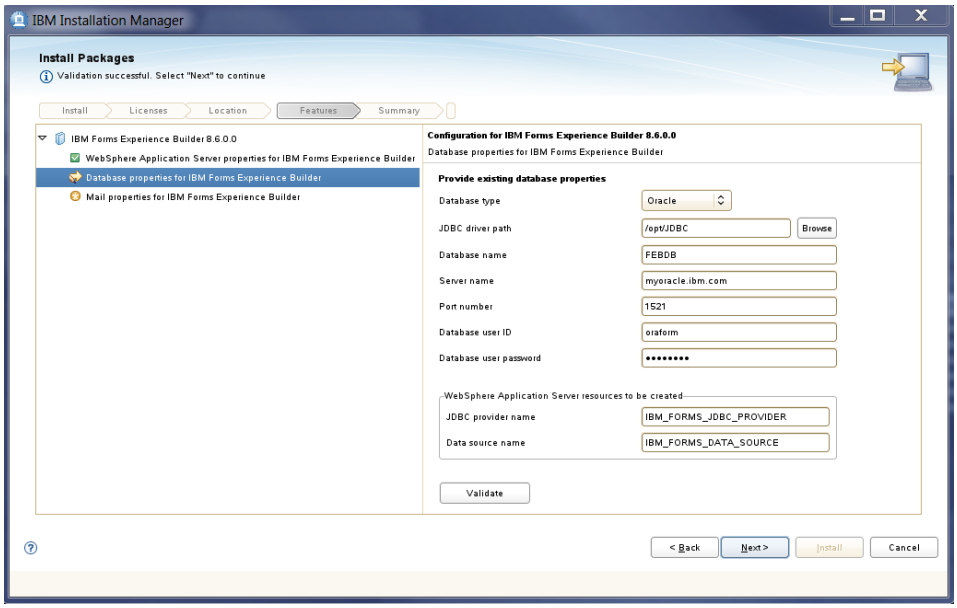
    Example: `1521`

32. Database user ID, enter the Oracle Database user

    Example: `ORAFORM`

33. Database user password, enter the Oracle database password

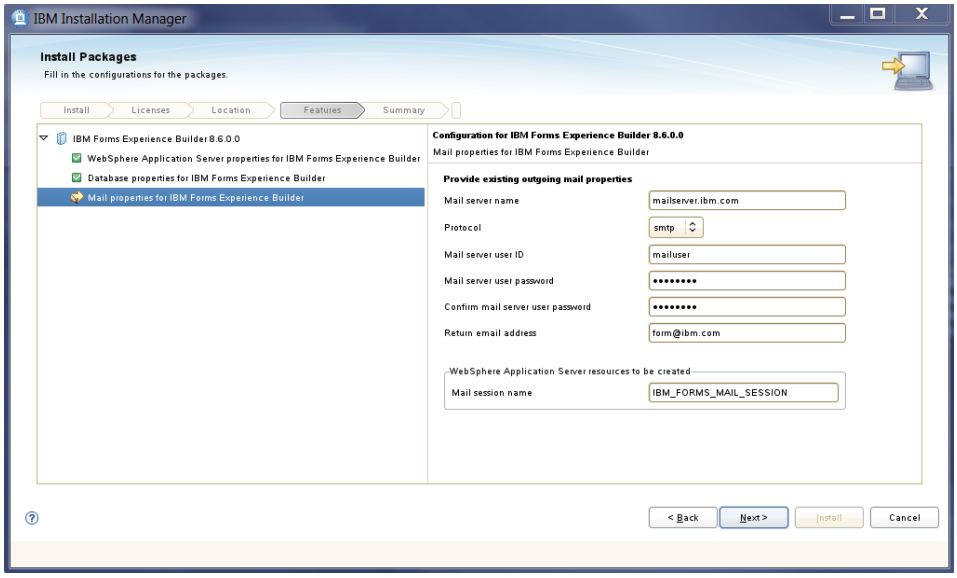
34. Click Validate



35. After the Validate is complete, the following message will appear under the Install Package title:

    `Validation successful.  Select "Next" to continue`

36. Click Next



37. Enter the Mail server hostname

    Example: `mailserver.ibm.com`

38. Select the mail server protocol

    Example: `smtp`

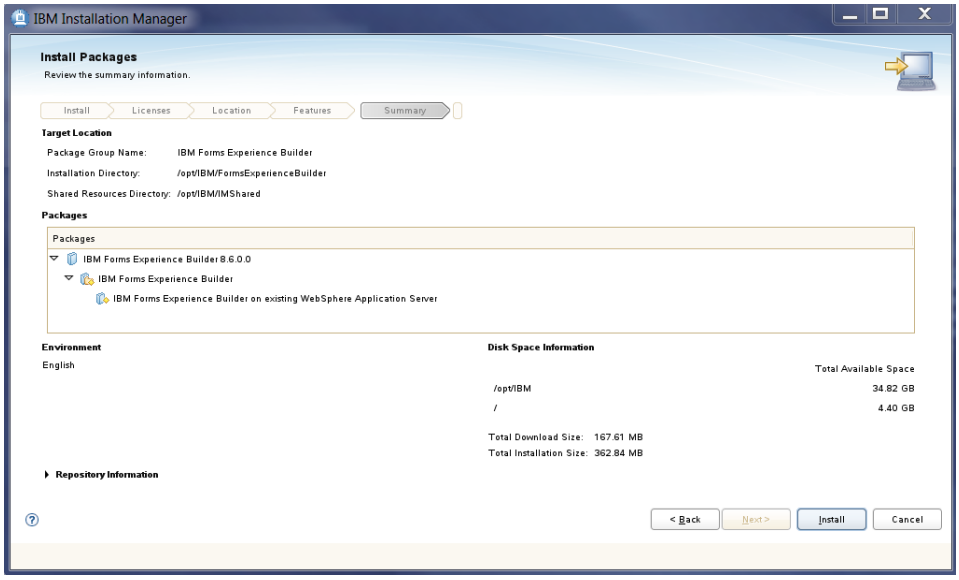
39. Enter the Mail server user ID and password

    Example: `mailuser/XXXX`

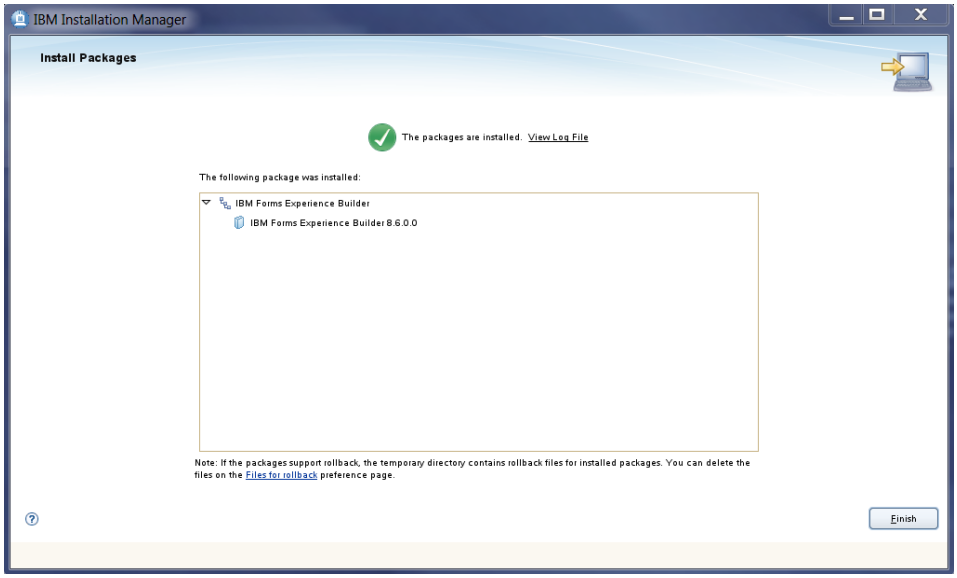
40. Enter the “Return email address”

    Example: `form@us.ibm.com`

41. Click Next



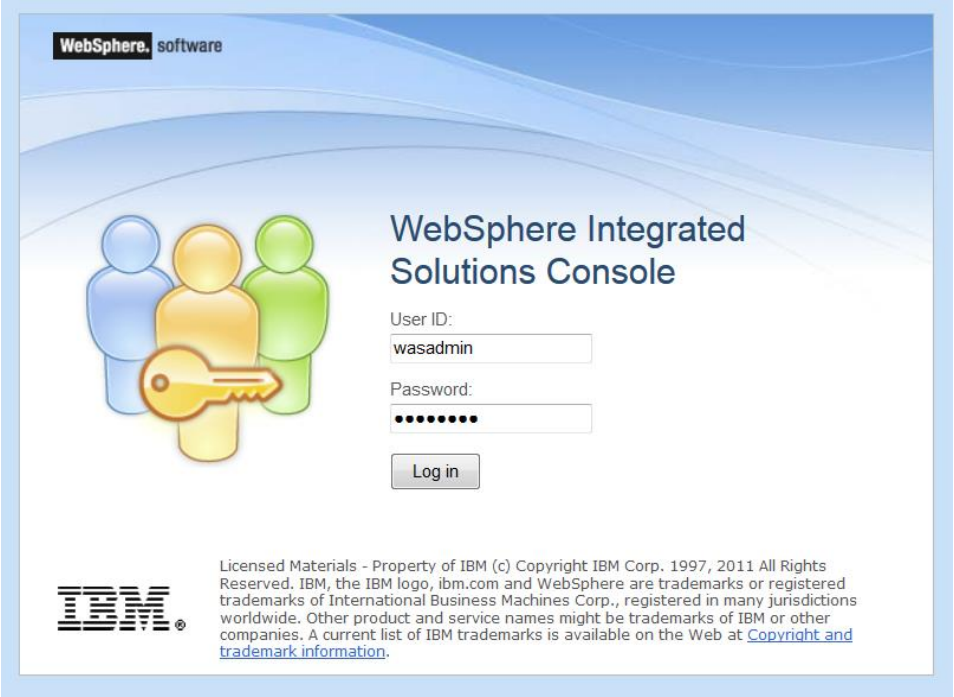
42. Click Install



43. Click Finish

8.2 Configuration

8.2.1 Forms Experience Builder AdminAlias

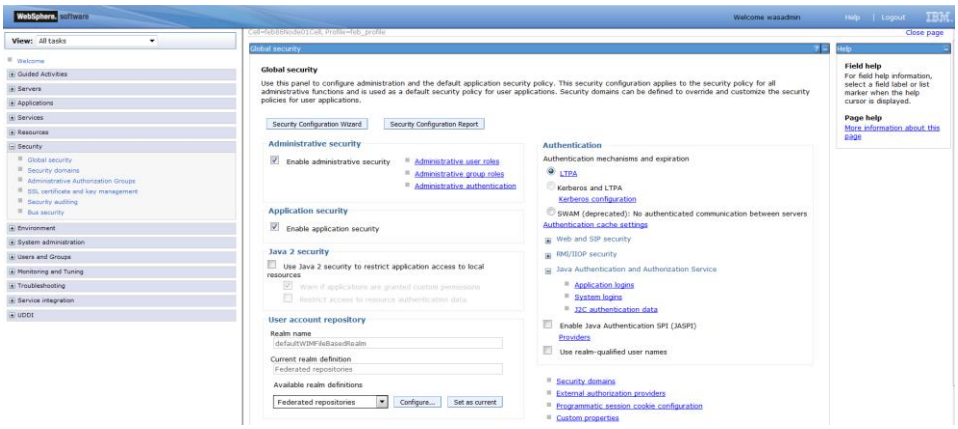


1. Open a browser and set the url to the WebSphere Application Server console

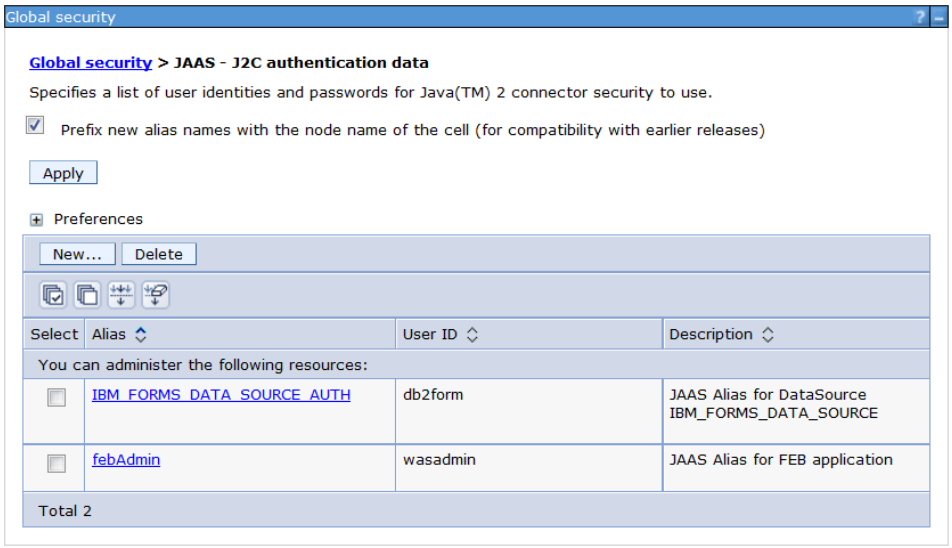
```
https://<HOSTNAME>:<PORT>/ibm/console
```

Example:

```
https://feb86.ibm.com:9043/ibm/console
```



2. Navigate to Security > Global security
3. Under Authentication, expand “Java Authentication and Authorization Service”
4. Click J2C authentication data



5. Verify the setting for the adminAlias (febAdmin) is created and set

8.2.2 Builder_config.properties

http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/co_configuring_the_properties_file.html

1. Login to the IBM Forms Experience Builder file system
2. Open the Builder_config.properties file with an editor

```
<FEB_DEFAULT>/extensions/Builder_config.properites
```

Example:

```
WIN     C:\ibm\Forms\extensions\Builder_config.properties
UNIX    /opt/ibm/Forms/extensions/Builder_config.properties
```

3. Verify the Forms Experience Builder admin alias. The admin alias should match what is located in the WebSphere Application Server console

```
ibm.was.MemberManager.adminAlias = febAdmin
```

NOTE: Use the following link below to review other optional changes to the configuration file
https://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/co_configuration_properties.html

4. If the extensions directory needs to be moved to a different location, update the fsp.properties file using the following instructions in the link below. If the fsp.properties file is updated, the update will need to be done everytime IBM Forms Experience Builder application is updated

https://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/co_configuring_the_properties_file.html

8.2.3 Service Catalog

1. Login to the IBM Forms Experience Builder file system
2. Create the Service Catalog directory in the Forms default location

```
<FEB_DEFAULT>/ServiceCatalog
```

Example:

```
WIN     C:\ibm\Forms\ServiceCatalog
UNIX    /opt/ibm/Forms/ServiceCatalog
```

3. Create a "1" directory located in the ServiceCatalog directory

```
<FEB_DEFAULT>/ServiceCatalog/1
```

Example:

```
WIN     C:\ibm\Forms\ServiceCatalog\1
UNIX    /opt/ibm/Forms/ServiceCatalog\1
```

8.3 Post Installation – Browser

http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/in_setting_up_feb_environment.html

1. Open a browser and set the URL to the Forms Experience Builder URL

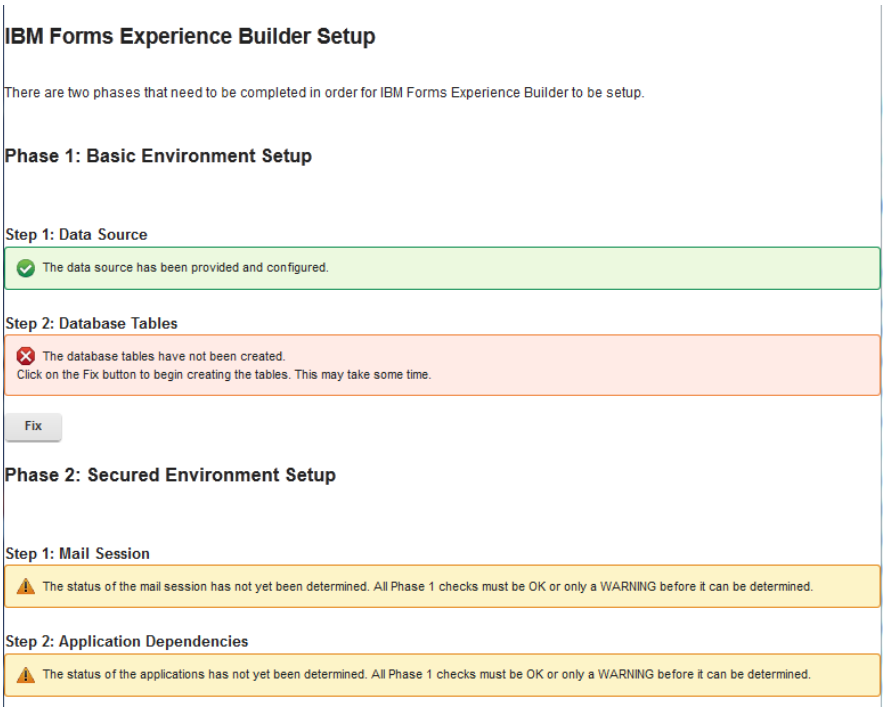
```
http://<HOSTNAME>:<PORT>/forms
```

Example:

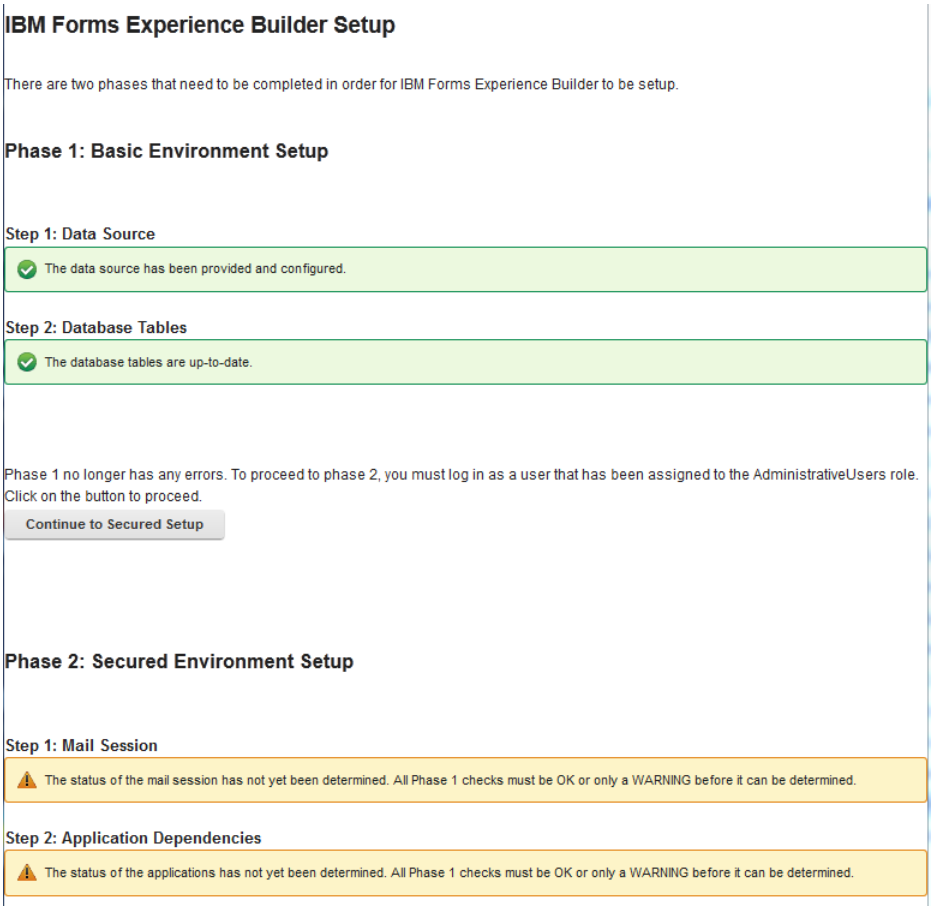
```
http://feb86.ibm.com:9080/forms
```

2. If the post steps have not been ran, the following message below will occur. Click Setup to start the post steps.

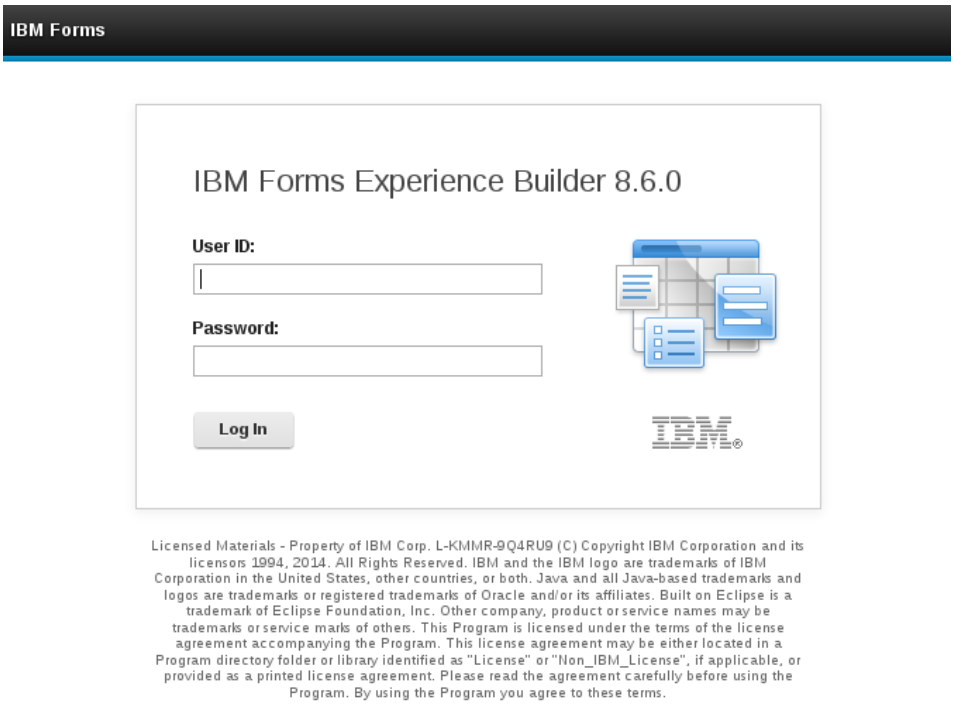
```
IBM Forms Experience Builder is not completely setup.  Until that
occurs, all normal requests are disabled.

Click on Setup to start the setup process.
```


IBM Forms Experience Builder Setup
There are two phases that need to be completed in order for IBM Forms Experience Builder to be setup.
Phase 1: Basic Environment Setup
Step 1: Data Source
The data source has been provided and configured.
Step 2: Database Tables
The database tables have not been created.
Click on the Fix button to begin creating the tables. This may take some time.
Fix
Phase 2: Secured Environment Setup
Step 1: Mail Session
The status of the mail session has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.
Step 2: Application Dependencies
The status of the applications has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.

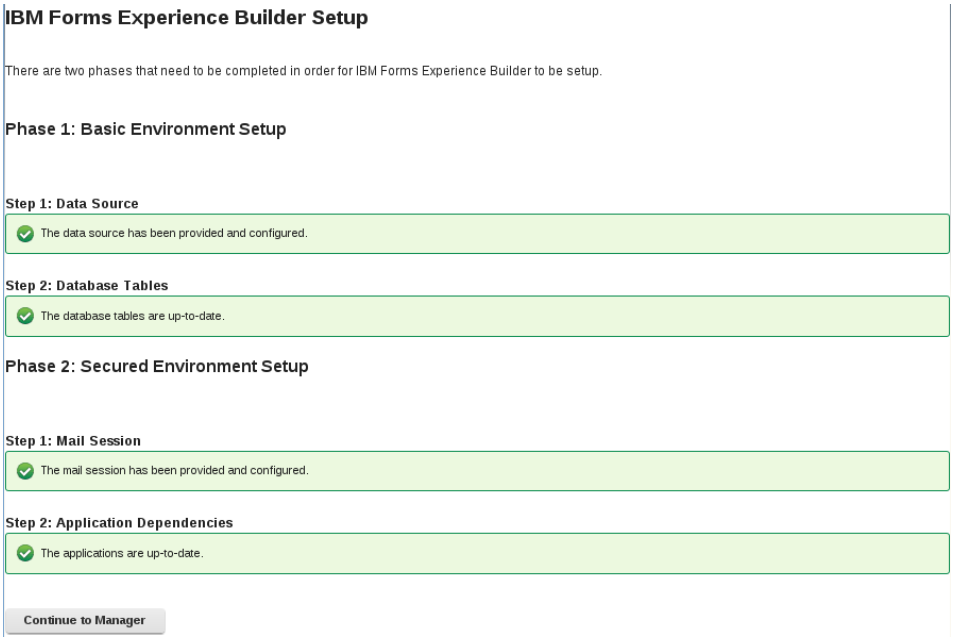
3. Click Fix


IBM Forms Experience Builder Setup
There are two phases that need to be completed in order for IBM Forms Experience Builder to be setup.
Phase 1: Basic Environment Setup
Step 1: Data Source
The data source has been provided and configured.
Step 2: Database Tables
The database tables are up-to-date.
Phase 1 no longer has any errors. To proceed to phase 2, you must log in as a user that has been assigned to the AdministrativeUsers role.
Click on the button to proceed.
Continue to Secured Setup
Phase 2: Secured Environment Setup
Step 1: Mail Session
The status of the mail session has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.
Step 2: Application Dependencies
The status of the applications has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.

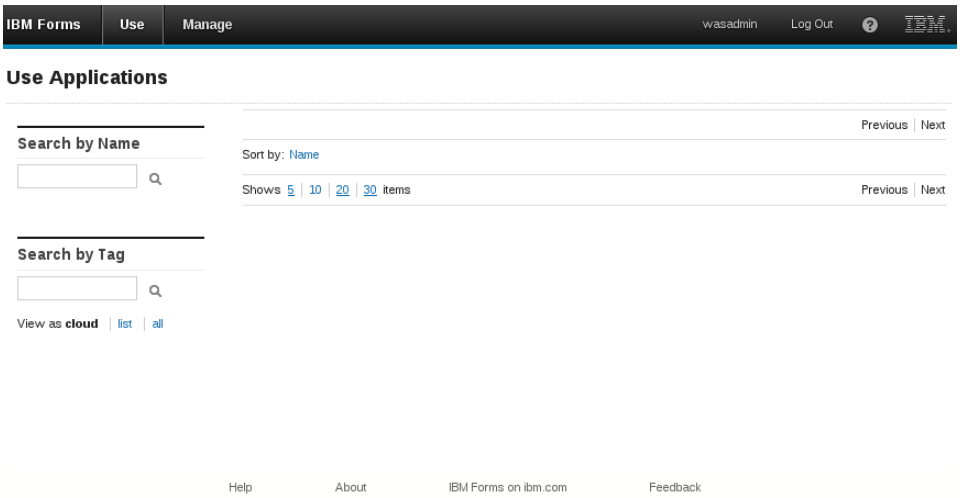
4. After the Fix task is complete, click “Continue to Secured Setup”



5. Login with the WebSphere Application Server Administrative user and password that was created during the creation of the profile



6. Click “Continue to Manager”



8.4 Post Installation – Database

https://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/in_oracle_creating_db.html

This step is only needed when creating an Oracle user ith Limited Permission

1. Login to the Oracle Database Server
2. Login to Oracle SQLPlus using the SYS DBA role sysdba

```
sqlplus <SYS_USER>/<PASSWORD>@<FEBDB> as sysdba
```

Example:

```
sqlplus sys/XXXX@FEBDB as sysdba
```

3. Run the following commands

```
REVOKE CREATE ANY PROCEDURE FROM <FEBDB_ROLE>;
GRANT EXECUTE ON FREEDOM.EXECUTEDDL_PRO TO <FEBDB_ROLE>;
```

Example:

```
REVOKE CREATE ANY PROCEDURE FROM ORAFORM_ROLE;
GRANT EXECUTE ON FREEDOM.EXECUTEDDL_PRO TO ORAFORM_ROLE;
```

9 WebServer (Optional)

A WebServer is not required but if a webserver is preferred the following section will help with the installation and configuration of the IBM HTTP Server, WebSphere Pluginm and WebSphere Customization Tool.

9.1 Install

1. Login to the IBM HTTP Server file system

2. Run the following command to install IBM HTTP Server

```
<IIM_HOME>/eclipse/tools/imcl install com.ibm.websphere.IHS.v85_8.5.5 -
silent -acceptLicense -installationDirectory <IHS_HOME> -repositories
<MWASSUPP>/repository.config –properties
user.ihs.httpPort=<PORT_NUMBER> –sharedResourcesDirectory <IMSHARED> -
log <LOGFILE>
```

Example: WINDOWS

```
E:\IBM\InstallationManager\eclipse\tools\imcl install
com.ibm.websphere.IHS.v85 -silent -acceptLicense -installationDirectory
E:\IBM\HTTPServer -repositories F:\MWASSUPP\repository.config -
properties user.ihs.httpPort=80 -sharedResourcesDirectory
E:\IBM\IMShared -log E:\IBM\IHS_Install.log
```

Example: LINUX

```
/opt/IBM/InstallationManager/eclipse/tools/imcl install
com.ibm.websphere.IHS.v85 -silent -acceptLicense -installationDirectory
/opt/IBM/HTTPServer -repositories /opt/tmp/MWASSUPP/repository.config -
properties user.ihs.httpPort=80 -sharedResourcesDirectory
/opt/IBM/IMShared -log /opt/IBM/IHS_Install.log
```

Example: AIX

```
/usr/IBM/InstallationManager/eclipse/tools/imcl install
com.ibm.websphere.IHS.v85 -silent -acceptLicense -installationDirectory
/usr/IBM/HTTPServer -repositories /usr/tmp/MWASSUPP/repository.config -
properties user.ihs.httpPort=80 -sharedResourcesDirectory
/usr/IBM/IMShared -log /usr/IBM/IHS_Install.log
```

3. Verify the installed message

```
Installed com.ibm.websphere.IHS.v85_8.5.5000.20130514_1044 to the
/opt/IBM/HTTPServer directory.
```

Example: WINDOWS

```
Installed com.ibm.websphere.IHS.v85_8.5.5000.20130514_1044 to the
E:\IBM\HTTPServer directory.
```

Example: LINUX

```
Installed com.ibm.websphere.IHS.v85_8.5.5000.20130514_1044 to the
/opt/IBM/HTTPServer directory.
```

Example: AIX

```
Installed com.ibm.websphere.IHS.v85_8.5.5000.20130514_1044 to the
/usr/IBM/HTTPServer directory.
```

4. Run the following command to install WebSphere Plugin

```
<IIM_HOME>/eclipse/tools/imcl install com.ibm.websphere.PLG.v85 -silent
-acceptLicense -installationDirectory <PLG_HOME> -repositories
<MWASSUPP>/repository.config –sharedResourcesDirectory <IMSHARED> -log
<LOGFILE>
```

Example: WINDOWS

```
E:\IBM\InstallationManager\eclipse\tools\imcl install
com.ibm.websphere.PLG.v85 -silent -acceptLicense -installationDirectory
E:\IBM\WebSphere\Plugins -repositories F:\MWASSUPP\repository.config -
sharedResourcesDirectory E:\IBM\IMShared -log E:\IBM\PLG_install.log
```

Example: LINUX

```
/opt/IBM/InstallationManager/eclipse/tools/imcl install
com.ibm.websphere.PLG.v85 -silent -acceptLicense -installationDirectory
/opt/IBM/WebSphere/Plugins -repositories
/opt/tmp/MWASSUPP/repository.config -sharedResourcesDirectory
/opt/IBM/IMShared -log /opt/IBM/PLG_install.log
```

Example: AIX

```
/opt/IBM/InstallationManager/eclipse/tools/imcl install
com.ibm.websphere.PLG.v85 -silent -acceptLicense -installationDirectory
/opt/IBM/WebSphere/Plugins -repositories
/opt/tmp/MWASSUPP/repository.config -sharedResourcesDirectory
/opt/IBM/IMShared -log /opt/IBM/PLG_install.log
```

5. Verify the installed message

```
Installed com.ibm.websphere.PLG.v85_8.5.5000.20130514_1044 to the
<PLUGINS_HOME> directory
```

Example: WINDOWS

```
Installed com.ibm.websphere.PLG.v85_8.5.5000.20130514_1044 to the
/opt/IBM/WebSphere/Plugins directory
```

Example: LINUX

```
Installed com.ibm.websphere.PLG.v85_8.5.5000.20130514_1044 to the
/opt/IBM/WebSphere/Plugins directory
```

Example: AIX

```
Installed com.ibm.websphere.PLG.v85_8.5.5000.20130514_1044 to the
/usr/IBM/WebSphere/Plugins directory
```

6. Run the following command to install WebSphere Customization Tool

```
<IIM_HOME>/eclipse/tools/imcl install com.ibm.websphere.WCT.v85 -silent
-acceptLicense -installationDirectory <WCT_HOME> -repositories
<MWASSUPP>/repository.config -sharedResourcesDirectory <IMSHARED> -log
<LOGFILE>
```

Example: WINDOWS

```
E:\IBM\InstallationManager\eclipse\tools\imcl install
com.ibm.websphere.WCT.v85 -silent -acceptLicense -installationDirectory
E:\IBM\WebSphere\Tools -repositories F:\MWASSUPP\repository.config -
sharedResourcesDirectory E:\IBM\IMShared -log E:\IBM\WCT_install.log
```

Example: LINUX

```
/opt/IBM/InstallationManager/eclipse/tools/imcl install
com.ibm.websphere.WCT.v85 -silent -acceptLicense -installationDirectory
/opt/IBM/WebSphere/Tools -repositories
/opt/tmp/MWASSUPP/repository.config -sharedResourcesDirectory
/opt/IBM/IMShared -log /opt/IBM/WCT_install.log
```

Example: AIX

```
/usr/IBM/InstallationManager/eclipse/tools/imcl install
com.ibm.websphere.WCT.v85 -silent -acceptLicense -installationDirectory
/usr/IBM/WebSphere/Tools -repositories
/usr/tmp/MWASSUPP/repository.config -sharedResourcesDirectory
/usr/IBM/IMShared -log /usr/IBM/WCT_install.log
```

7. Verify the installed message

```
Installed com.ibm.websphere.WCT.v85_8.5.5000.20130514_1044 to the
<WCT_HOME> directory
```

Example: WINDOWS

```
Installed com.ibm.websphere.WCT.v85_8.5.5000.20130514_1044 to the
E:\IBM\WebSphere\Tools directory.
```

Example: LINUX

```
Installed com.ibm.websphere.WCT.v85_8.5.5000.20130514_1044 to the
/opt/IBM/WebSphere/Tools directory.
```

Example: AIX

```
Installed com.ibm.websphere.WCT.v85_8.5.5000.20130514_1044 to the
/usr/IBM/WebSphere/Tools directory.
```

9.2 Plugin Script

https://www.ibm.com/support/knowledgecenter/SSEQTP_8.5.5/com.ibm.websphere.nd.doc/ae/tins_pctcl_using.html

9.2.1 Windows

1. Login to the web server file system
2. Create a response file for the plugin definition (webserver.rsp)

```
WIN     F:\tmp\webserver.rsp
```

3. Open the responsfile (webserver.rsp) with an editor
4. Add the following information

```
configType=remote
enableAdminServerSupport=true
enableUserAndPass=true
enableWinService=true
ihsAdminPassword=<IHS_ADMINPWD>
ihsAdminPort=8008
ihsAdminUserID=<IHS_ADMINID>
ihsWindowsPassword=<IHS_WINPWD>
ihsWindowsStartupType=auto
ihsWindowsUserID=<IHS_WINID>
mapWebServerToApplications=true
wasMachineHostname=<FORM_HOSTNAME>
webServerConfigFile1=<IHS_HOME>\conf\httpd.conf
webServerDefinition=<WEB_DEF>
webServerHostName=<WEBSERVER_HOSTNAME>
webServerInstallArch=<BIT_VERSION>
webServerOS=windows
webServerPortNumber=80
webServerSelected=ihs
```

Example: WINDOW

```
configType=remote
enableAdminServerSupport=true
enableUserAndPass=true
enableWinService=true
ihsAdminPassword=XXXX
ihsAdminPort=8008
ihsAdminUserID=IHSADMIN
ihsWindowsPassword=XXXX
ihsWindowsStartupType=auto
ihsWindowsUserID=Administrator
mapWebServerToApplications=true
wasMachineHostname=feb86.ibm.com
webServerConfigFile1=E:\IBM\HTTPServer\conf\httpd.conf
webServerDefinition=webserver1
webServerHostName=myihs.ibm.com
webServerInstallArch=64
webServerOS=windows
webServerPortNumber=80
webServerSelected=ihs
```

5. Run the following command to create the Plugin Script

```
<WCT_HOME>\wct855\WCT\wctcmd.sh -tool pct -defLocPathname <PLUGIN_HOME>
-defLocName <PLUGIN_NAME> -createDefinition -response <RESPONSEFILE>
```

```
E:\IBM\WebSphere\Tools\WCT\wctcmd.bat -tool pct -defLocPathname
E:\IBM\WebSphere\Plugins -defLocName webplugin -createDefinition -
response F:\tmp\webserver.rsp
```

6. Verify the response

```
Importing definition location...

Definition location successfully imported

Launching tool pct ...

Tool execution completed successfully.
```

7. Copy the plugin script to the bin directory of the WebSphere Application Server home on the IBM Forms Experience Builder file system

```
Before: <PLUGIN_HOME>\bin\configure<WEB_DEF>.bat
After:  <WAS_HOME>\bin\configure<WEB_DEF>.bat
```

Example:

```
Before: E:\IBM\WebSphere\Plugins\bin\configurewebserver1.bat
After:  E:\IBM\WebSphere\AppServer\bin\configurewebserver1.bat
```

8. Login to the IBM Forms Experience Builder file system
9. Start the IBM Forms Experience Builder

```
<FORMS_PROFILE>\bin\startServer.bat <FORM_SERVER>
```

Example:

```
E:\IBM\WebSphere\AppServer\profiles\feb_profile\bin\
                                                startServer.bat feb01
```

10. Change to the bin directory of the WebSphere Application Server home

Example:

```
  E:\IBM\WebSphere\AppServer\bin
```

11. Run configurewebserver1.bat

9.2.2 UNIX

1. Login to the web server file system
2. Create a response file for the plugin definition (webserver.rsp)

```
LINUX   /opt/tmp/webserver.rsp
AIX     /usr/tmp/webserver.rsp
```

3. Open the responsfile (webserver.rsp) with an editor
4. Add the following information

```
configType=remote
enableAdminServerSupport=true
enableUserAndPass=true
enableWinService=false
ihsAdminCreateUserAndGroup=true
ihsAdminPassword=<IHS_ADMINPWD>
ihsAdminPort=8008
ihsAdminUnixUserGroup=<IHS_GROUP>
ihsAdminUnixUserID=<IHS_ADMINID>
mapWebServerToApplications=true
wasMachineHostname=<FORM_HOSTNAME>
webServerConfigFile1=<IHS_HOME>/conf/httpd.conf
webServerDefinition=<WEB_DEF>
webServerHostName=<WEBSERVER_HOSTNAME>
webServerOS=<OS>
webServerPortNumber=80
webServerSelected=ihs
```

Example: LINUX

```
configType=remote
enableAdminServerSupport=true
enableUserAndPass=true
enableWinService=false
ihsAdminCreateUserAndGroup=true
ihsAdminPassword=XXXX
ihsAdminPort=8008
ihsAdminUnixUserGroup=ihsgrp
ihsAdminUnixUserID=ihsadmin
mapWebServerToApplications=true
wasMachineHostname=feb86.ibm.com
webServerConfigFile1=/opt/IBM/HTTPServer/conf/httpd.conf
webServerDefinition=webserver1
webServerHostName=myihs.ibm.com
webServerOS=Linux
webServerPortNumber=80
webServerSelected=ihs
```

Example: AIX

```
configType=remote
enableAdminServerSupport=true
enableUserAndPass=true
enableWinService=false
ihsAdminCreateUserAndGroup=true
ihsAdminPassword=XXXX
ihsAdminPort=8008
ihsAdminUnixUserGroup=ihsgrp
ihsAdminUnixUserID=ihsadmin
mapWebServerToApplications=true
wasMachineHostname=feb86.ibm.com
webServerConfigFile1=/usr/IBM/HTTPServer/conf/httpd.conf
webServerDefinition=webserver1
webServerHostName=myihs.ibm.com
webServerOS=Aix
webServerPortNumber=80
webServerSelected=ihs
```

5. Run the following command to create the Plugin Script

```
<WCT_HOME>\wct855\WCT\wctcmd.sh -tool pct -defLocPathname <PLUGIN_HOME>
-defLocName <PLUGIN_NAME> -createDefinition -response <RESPONSEFILE>
```

```
/opt/IBM/WebSphere/Tools/WCT/wctcmd.sh -tool pct -defLocPathname
/opt/IBM/WebSphere/Plugins -defLocName webplugin -createDefinition -
response /opt/tmp/webserver.rsp
```

6. Verify the response

```
Importing definition location...

Definition location successfully imported

Launching tool pct ...

Tool execution completed successfully.
```

7. Copy the plugin script to the bin directory of the WebSphere Application Server home on the IBM Forms Experience Builder file system

```
Before: <PLUGIN_HOME>/bin/configure<WEB_DEF>.bat
After:  <WAS_HOME>/bin/configure<WEB_DEF>.bat
```

Example: LINUX

```
Before: /opt/IBM/WebSphere/Plugins/bin/configurewebserver1.sh
After:  /opt/IBM/WebSphere/AppServer/bin/configurewebserver1.sh
```

Example: AIX

```
Before: /usr/IBM/WebSphere/Plugins/bin/configurewebserver1.sh
After:  /usr/IBM/WebSphere/AppServer/bin/configurewebserver1.sh
```

8. Login to the IBM Forms Experience Builder file system
9. Start the IBM Forms Experience Builder

```
<FORMS_PROFILE>/bin/startServer.bat <FORM_SERVER>
```

Example: LINUX

```
/opt/IBM/WebSphere/AppServer/profiles/feb_profile/bin/
                                                startServer.sh feb01
```

Example: AIX

```
/usr/IBM/WebSphere/AppServer/profiles/feb_profile/bin/
                                                startServer.sh feb01
```

10. Change to the bin directory of the WebSphere Application Server home

Example:

```
LINUX   /opt/IBM/WebSphere/AppServer/bin
AIX     /opt/IBM/WebSphere/AppServer/bin
```

11. Run the following command to execute the script

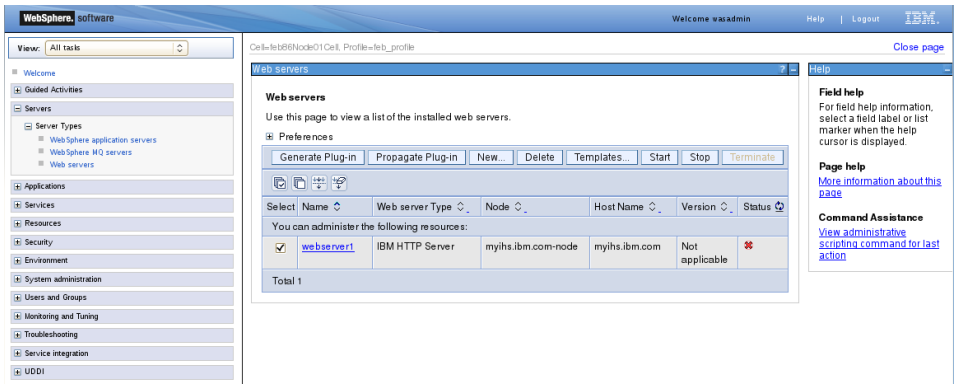
```
configurewebserver1.bat -user <WASADMIN> -password <WASPWD>
```

12. Verify the results

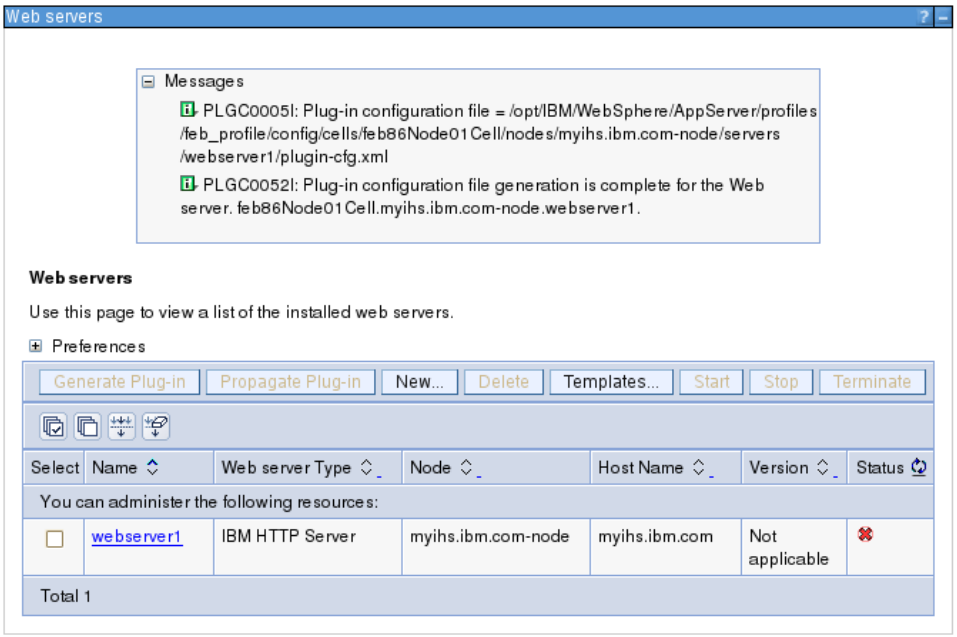
```
Target mapping is updated for the application query.

Start saving the configuration.

Configuration save is complete.
```

9.3 Generate/Propagate Plugin

1. Login to the WebSphere Application Server console



2. Navigate to Servers > Server Types > Web servers
3. Check the box by the webserver definition (webserver1)
4. Click Generate Plug-in



5. Copy all generated files to the Web Server

```
plugin-cfg.xml
plugin-key.kdb
plugin-key.sth
```

FROM:
<*FORMS_PROFILE*>/config/cells/<*CELL_NAME*>/nodes/<*WEBSERVER_NODENAME*>/servers/<*WEBSERVER_DEFINITION*>/*

TO:
<*PLUGIN_HOME*>/config/<*WEBSERVER_DEFINITION*>/*

Example: WINDOWS

FROM:
E:\IBM\WebSphere\AppServer\profiles\feb_profile\config\cells\feb86Node01Cell\nodes\myihs.ibm.com-node\servers\webserver1*

TO:
E:\IBM\WebSphere\Plugins\config\webserver1*

Example: LINUX

FROM:
/opt/IBM/WebSphere/AppServer/profiles/feb_profile/config/cells/feb86Node01Cell/nodes/myihs.ibm.com-node/servers/webserver1/*

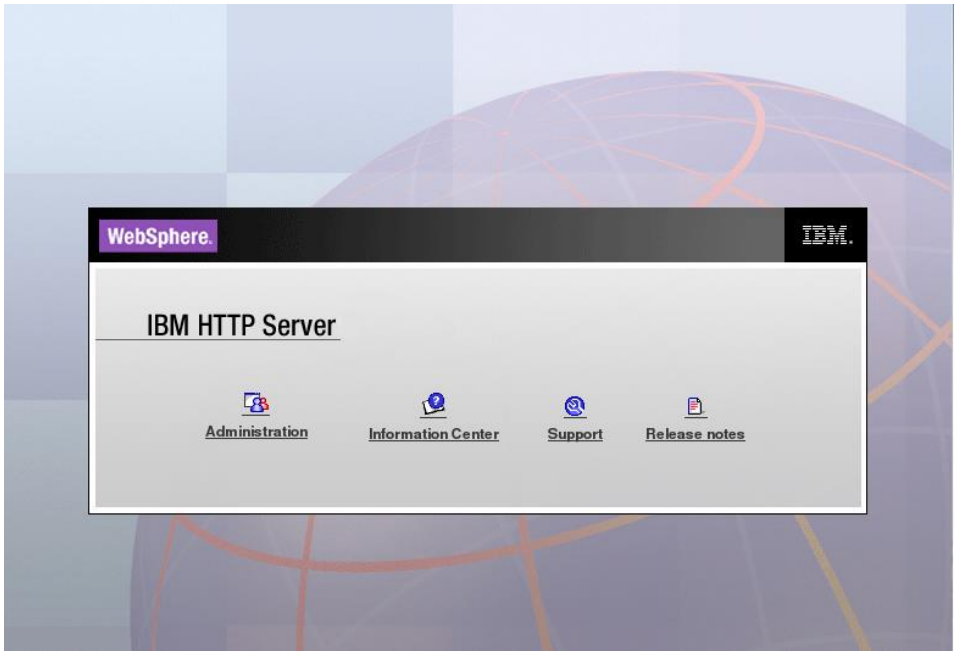
TO:
/opt/IBM/WebSphere/Plugins/config/webserver1/*

Example: AIX

FROM:
/usr/IBM/WebSphere/AppServer/profiles/feb_profile/config/cells/feb86Node01Cell/nodes/myihs.ibm.com-node/servers/webserver1/*

```
TO:
/usr/IBM/WebSphere/Plugins/config/webserver1/*
```

6. Restart/Start the WebServer

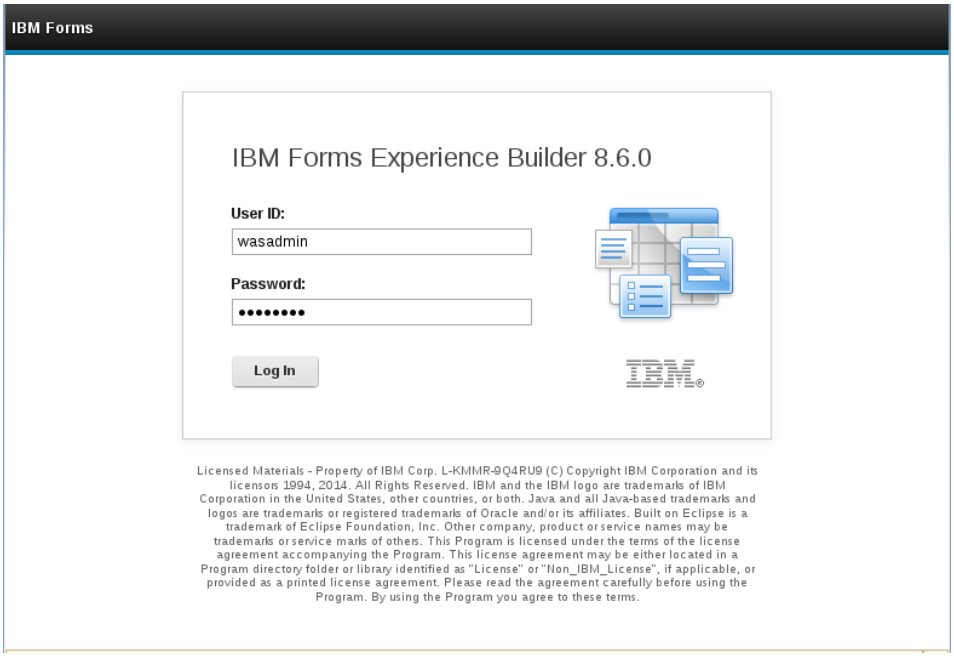


7. Open a browser and set the url to the web server hostname

```
http://<WEBSERVER_HOSTNAME>:<PORT>
```

Example:

```
http://myihs.ibm.com
```



8. Open a browser and set the url to the web server hostname and the forms context root

```
http://<WEBSERVER_HOSTNAME>:<PORT>/forms
```

Example:

```
http://myihs.ibm.com:80/forms
```

10 Whats Next…

10.1 Upgrade IBM Forms Experience Builder

1. Download the latest IBM Forms Experience Builder media files from fix central.
2. Follow the following steps to upgrade the IBM Forms Experience Builder.

http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.4/FEB/in_upgrading_feb.html

10.2 Enable Security

This step is only required if adding an LDAP User repository to the WebSphere Application Server is needed. IBM Forms experience Builder requires security enabled and security is required before installation of IBM Forms Experience Builder This step will not show how to enable security but where to enable security. There are different types of user repositories and this document can not cover all of them.

1. Start the WebSphere Application Server

```
<PROFILE_HOME>/bin/startServer.(bat/sh) <APPSERVER_NAME>
```

Example: WINDOWS

```
E:\IBM\WebSphere\AppServer\profiles\feb_profile\bin\startServer feb01
```

Example: LINUX

```
/opt/IBM/WebSphere/AppServer/profiles/feb_profile/bin/startServer.sh
feb01
```

Example: AIX

```
/usr/IBM/WebSphere/AppServer/profiles/feb_profile/bin/startServer.sh
feb01
```

NOTE: The location could be different depending on the information entered during the creation of the profile

2. Open a browser and set the URL to the WebSphere Application Server Administrative Console

```
https://<HOSTNAME>:<PORT>/ibm/console
```

Example:

```
https://feb86.ibm.com:9043/ibm/console
```

3. If required, login with the WebSphere Administrative User name and password created during the creation of the profile
4. Navigate to Security > Global security

5. Follow the WebSphere Application knowledge center to enable an external security repository

10.3 Integrating with IBM WebSphere Portal

User the following link to help integrate the IBM Forms Experience Builder with IBM WebSphere Portal

http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/in_portlet_installing_portlet_overview.html

IBM Forms Experience Builder 8.6.4
http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.4/FEB/co_portlet_configuring_portlet_overview.html

Verify the version of WebSphere Portal is supported

http://www-01.ibm.com/support/docview.wss?uid=swg27044505

10.4 Starter Pack

https://www.ibm.com/developerworks/community/wikis/home?lang=en_us#!/wiki/W65fd19fc117a_4d18_87e4_5f7b8a6727cc/page/FEB%20Starter%20Packs

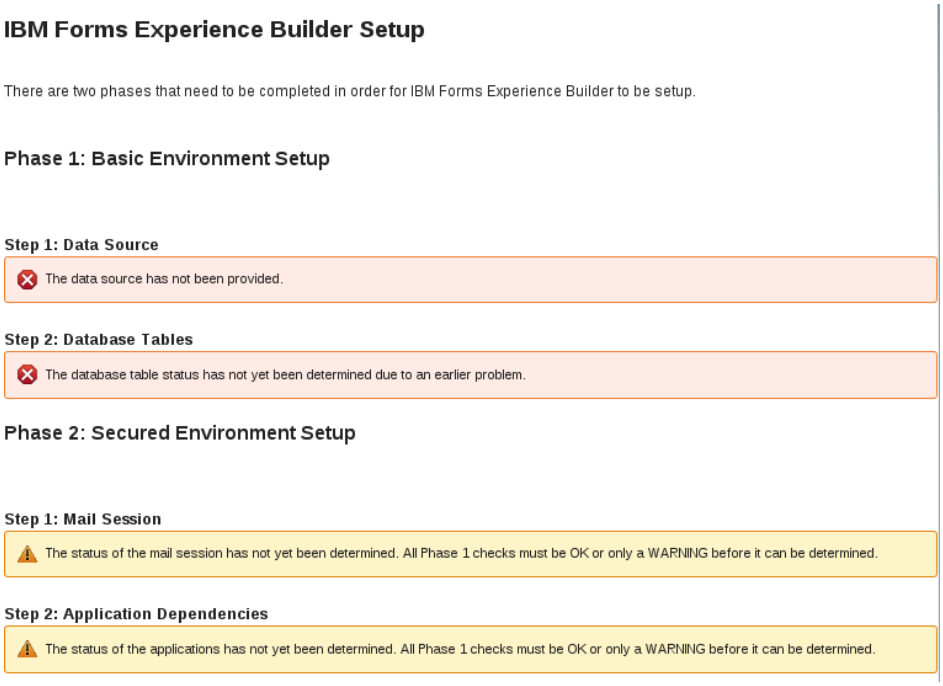
Starter packs are partially built sample forms and instructions designed to help line of business users and IT staff quickly create and deploy data capture solutions.

- Sample forms that accelerate solution construction for specific business needs.
- Quick starting point with best in class capability.
- Easy to learn (how to) form design techniques.
- Pre-built solutions for commonly used forms.
- Customers, Business Partners and IBM Services can customize and extend samples to fit their individual needs.

11 Troubleshoot

11.1 No "Fix" button During Post Installation Step

Problem:



Solution:

Verify the Datasource is correct by doing a Test Connect in the WebSphere Application Server Console. If it fails, fix the problem. Sometimes there is a problem finding the database driver.