

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 assembly 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

<i><MFEB>/documentation/...</i>
<i><MFEB>/FormsImage/...</i>
<i><MFEB>/IIM/...</i>

```

<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 Supplement 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 correct 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 WebSphere 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.

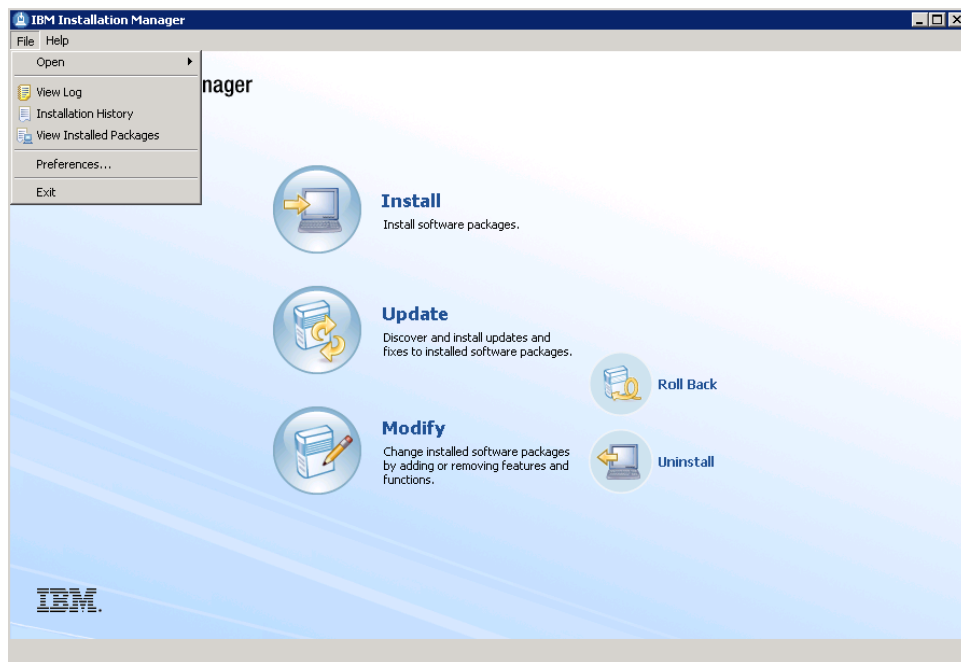
7.1.1 Graphical User Interface

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.

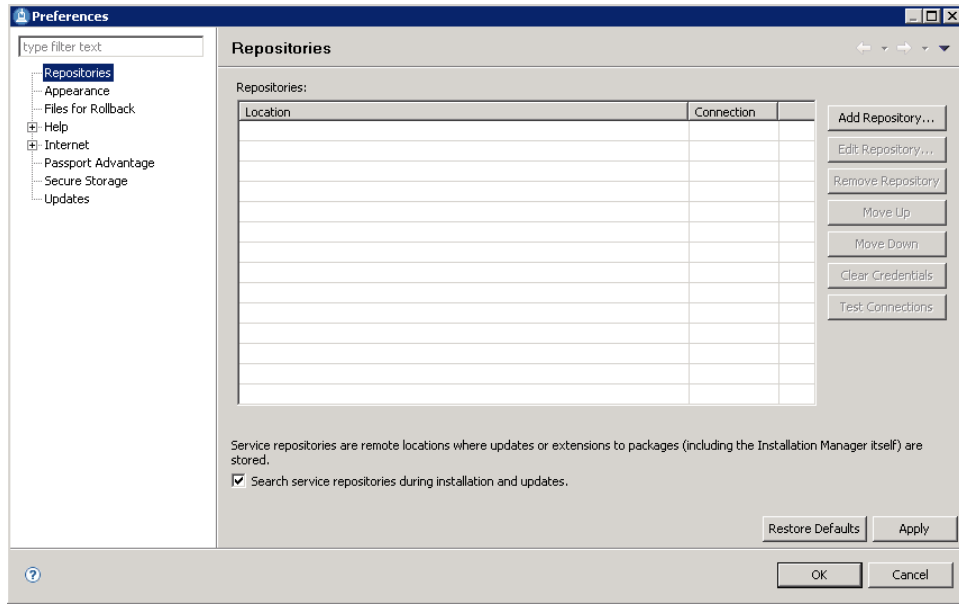
1. Login to the IBM Forms Experience Builder file system as an administrator/root
2. Run the **IBMIM** command to start the IBM Installation Manager

Example:

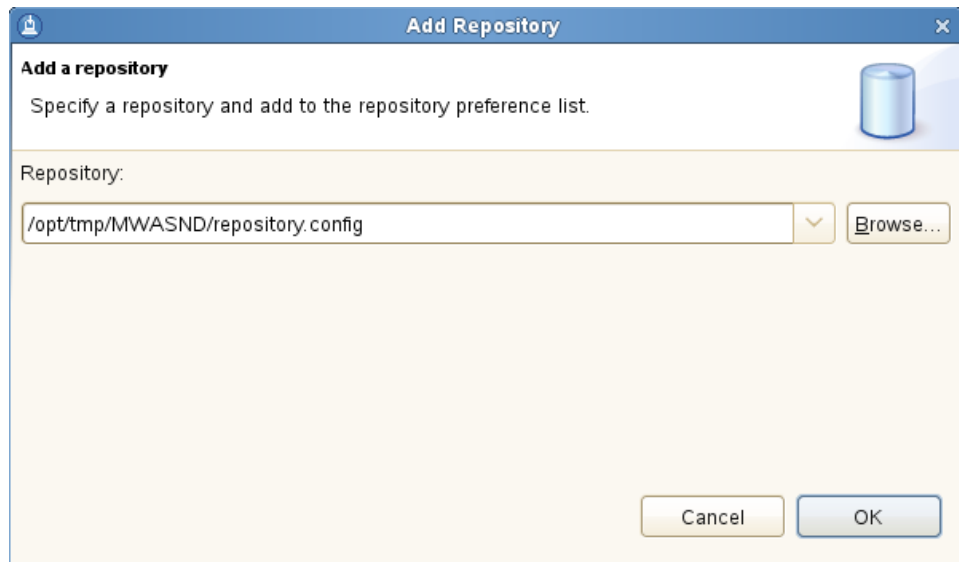
```
WIN      E:\IBM\InstallationManager\eclipse\IBMIM.exe
LINUX    /opt/IBM/InstallationManager/eclipse/IBMIM
AIX      /usr/IBM/InstallationManager/eclipse/IBMIM
```



3. Click Files > Preferences...



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

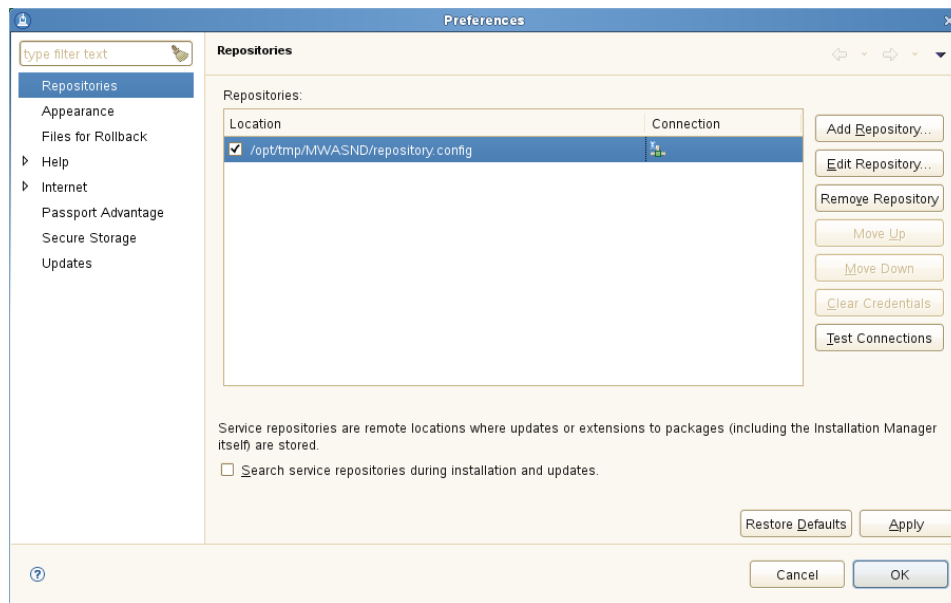


6. Browse-to/Enter the repository.config in the WebSphere Application Server media

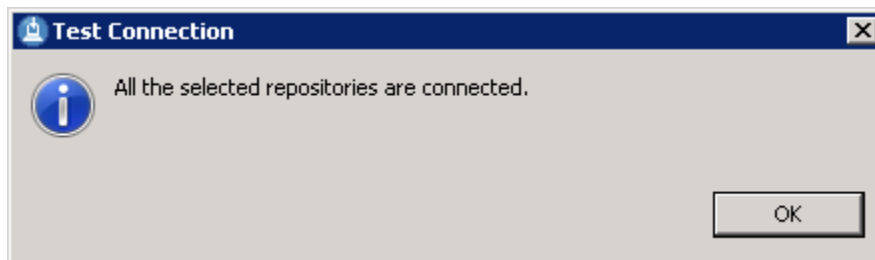
Example:

```
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.

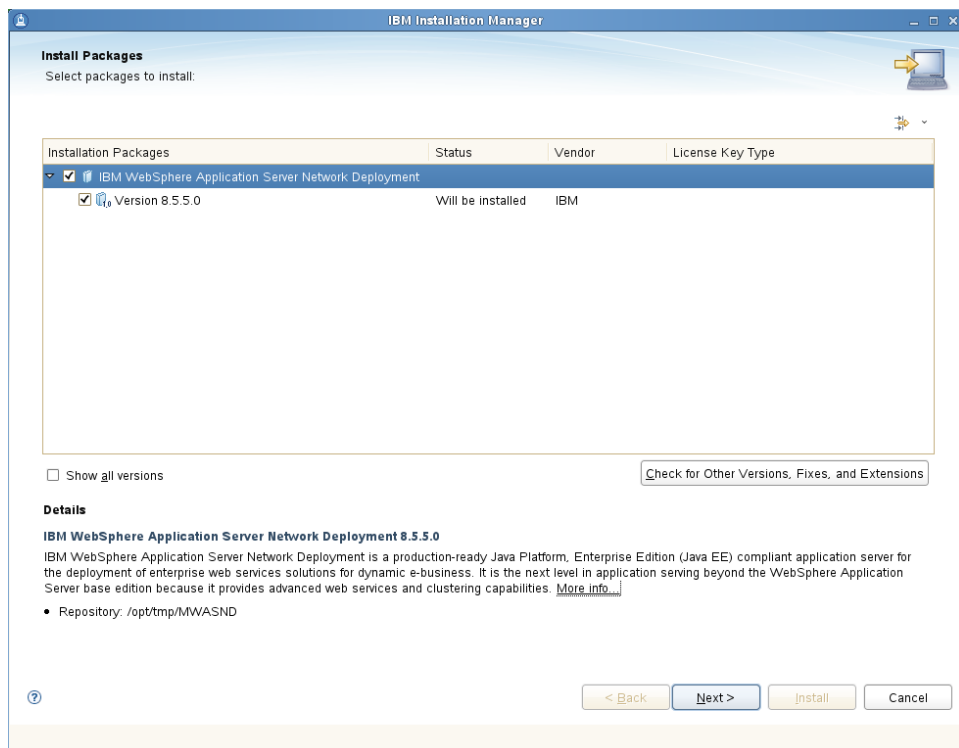
10. Click OK to close the message

11. Uncheck “Search service repositories during installation and updates.”

12. Click OK

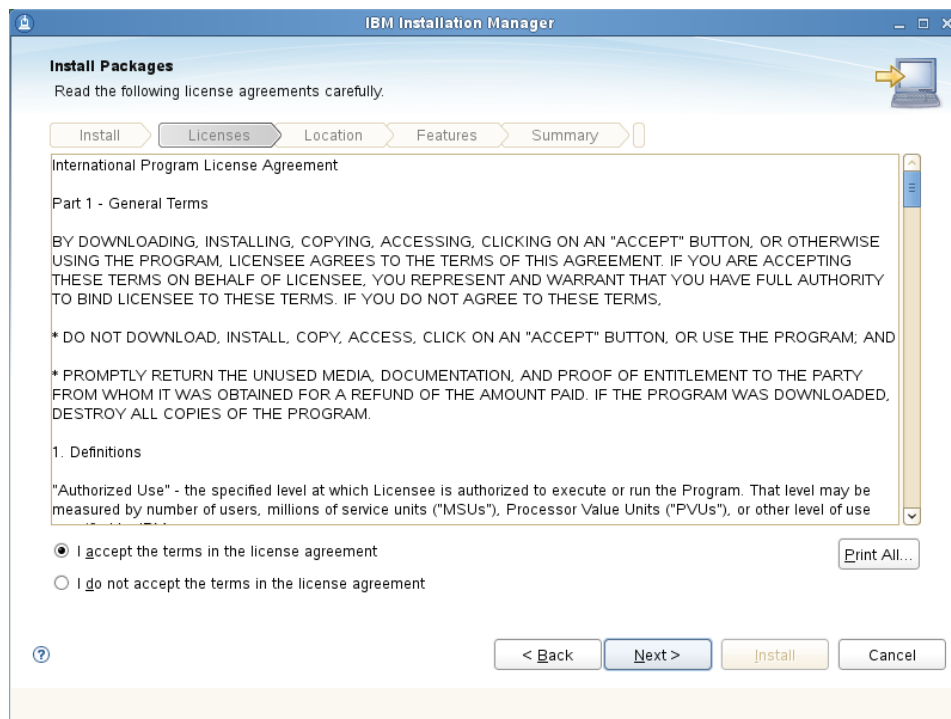


13. Click Install



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

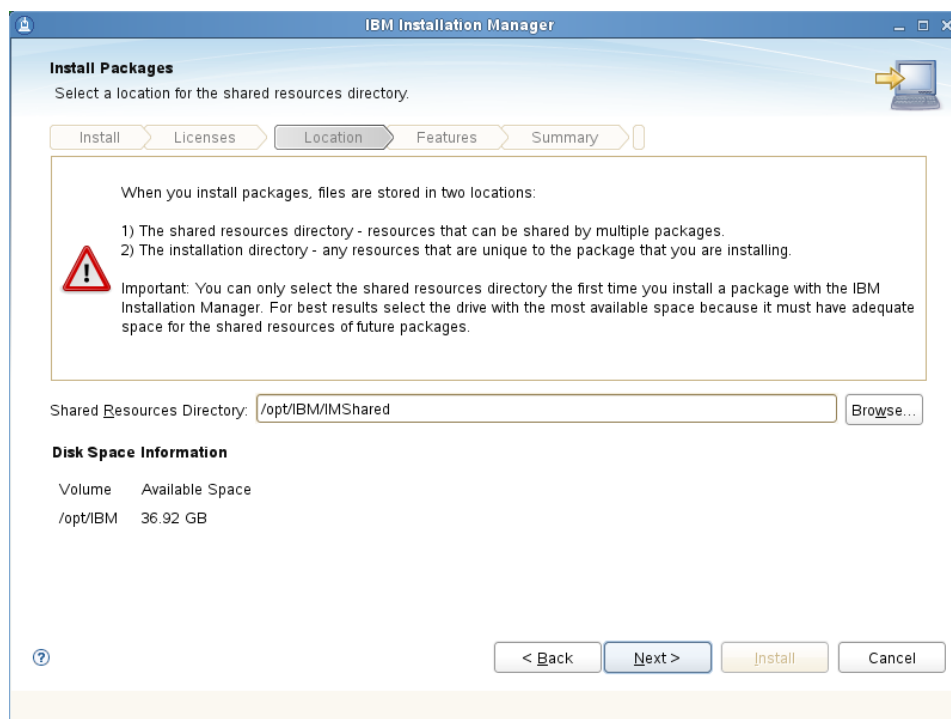
15. Click Next



16. Review the International Program License Agreement

17. Select "I accept the terms in the license agreement"

18. Click Next



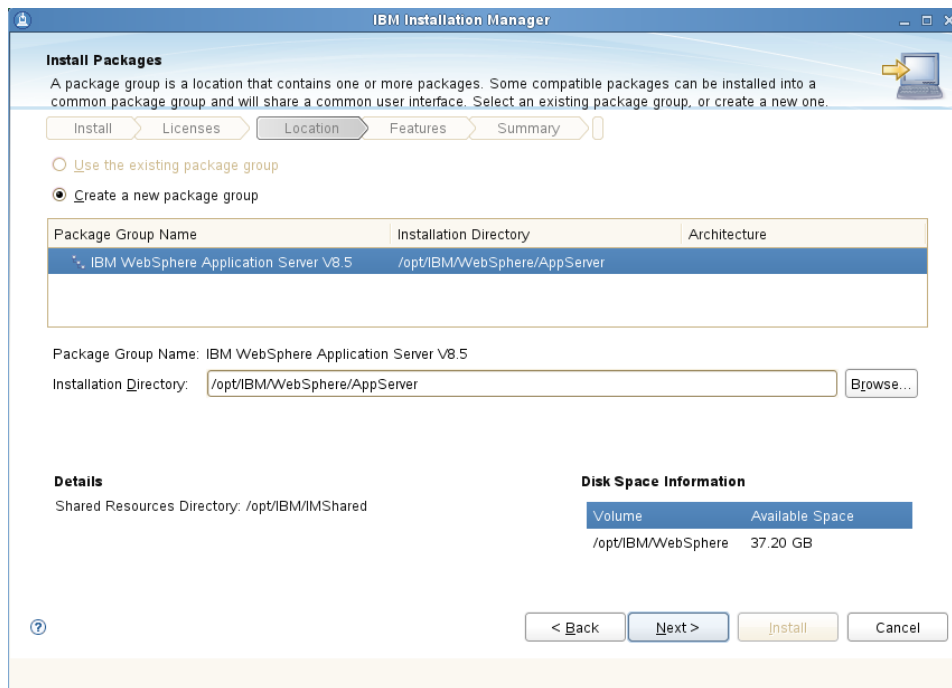
19. Browse-to/Enter the location of the Shared resource directory

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

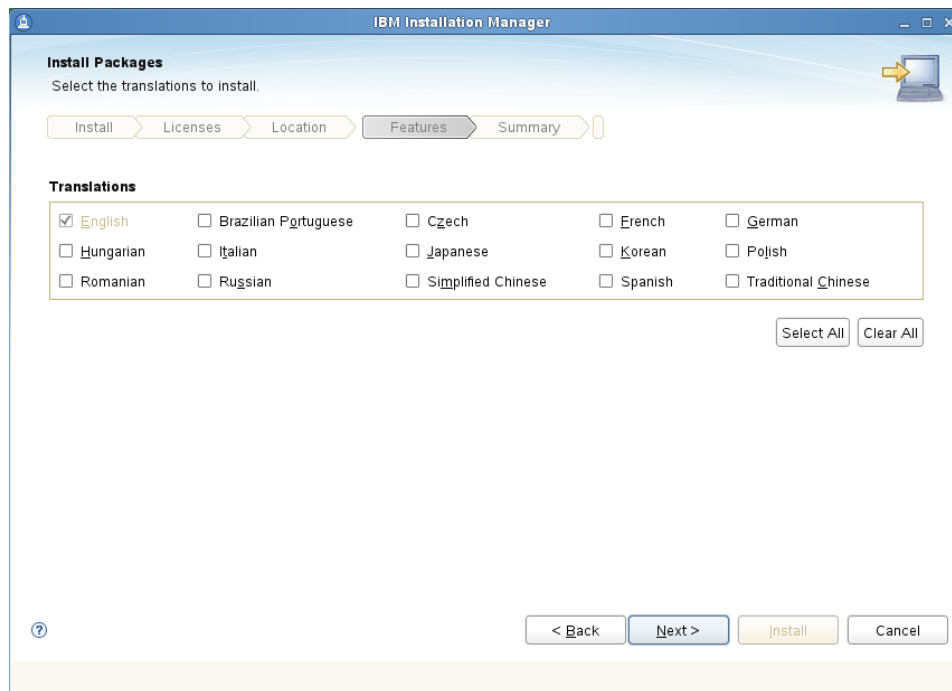
22. Verify/Update the Installation Directory

WAS_HOME = _____

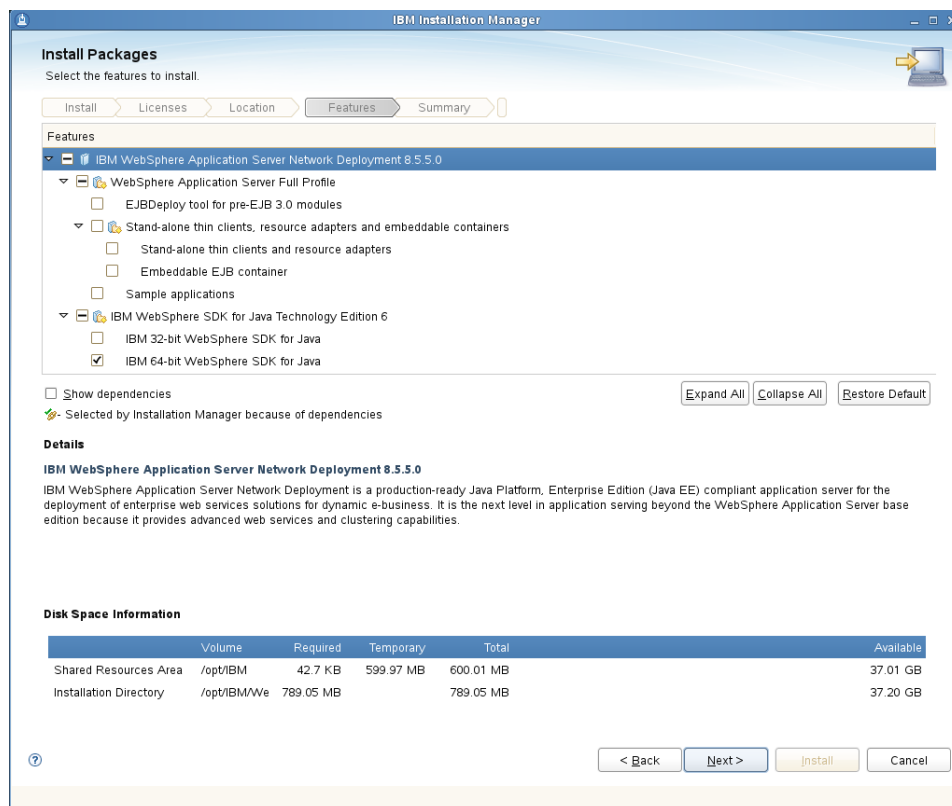
Example:

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

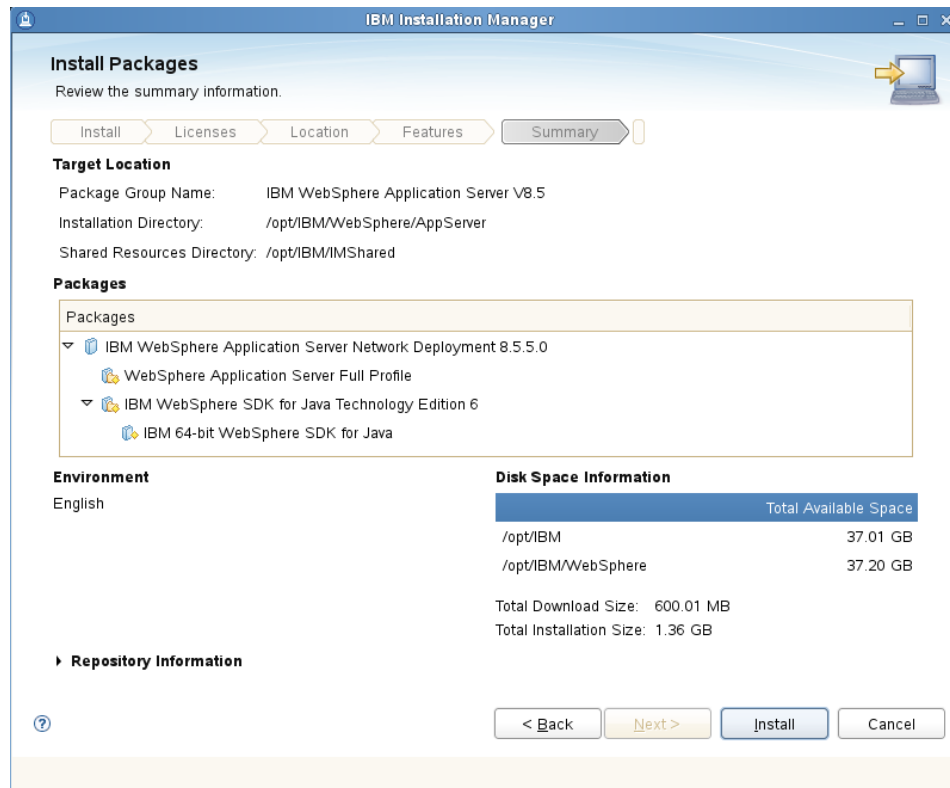
23. Click Next



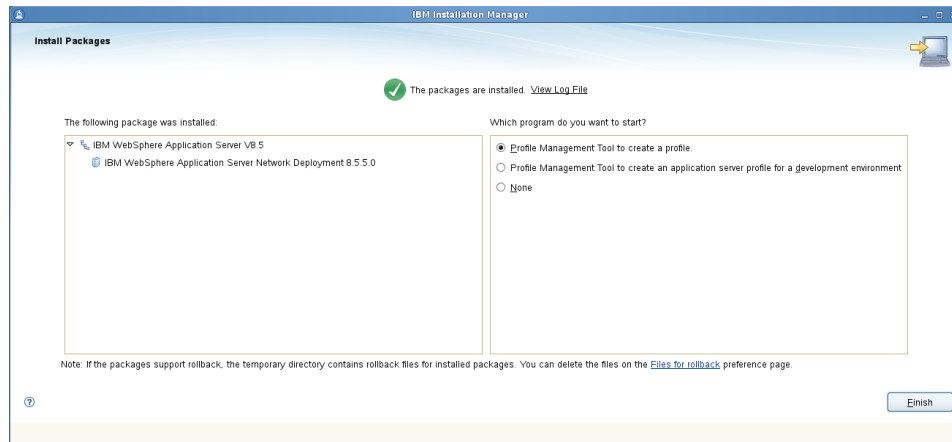
24. Click Next



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



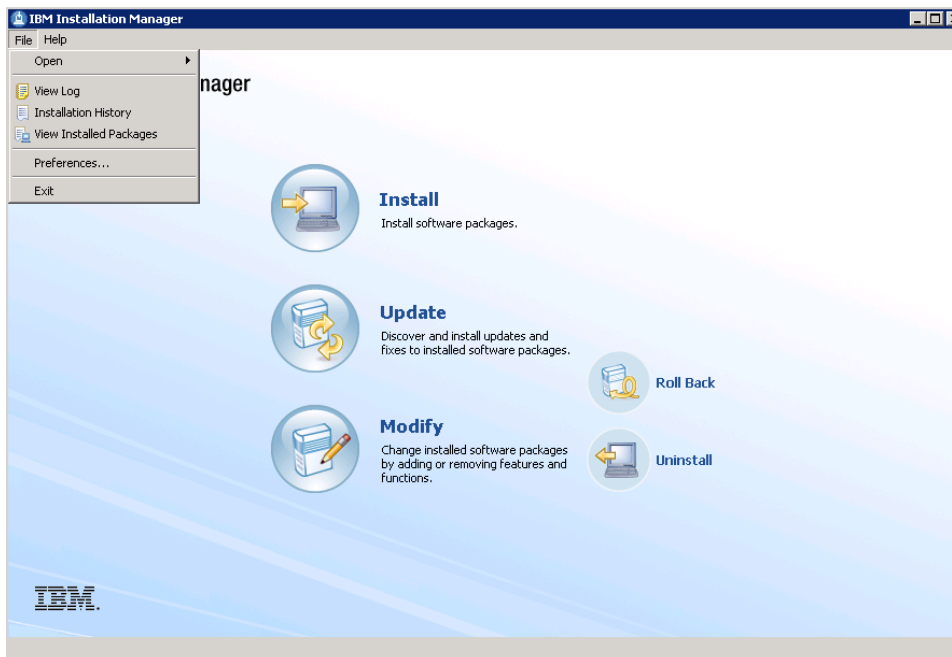
28. Review the summary information
29. Click Install



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

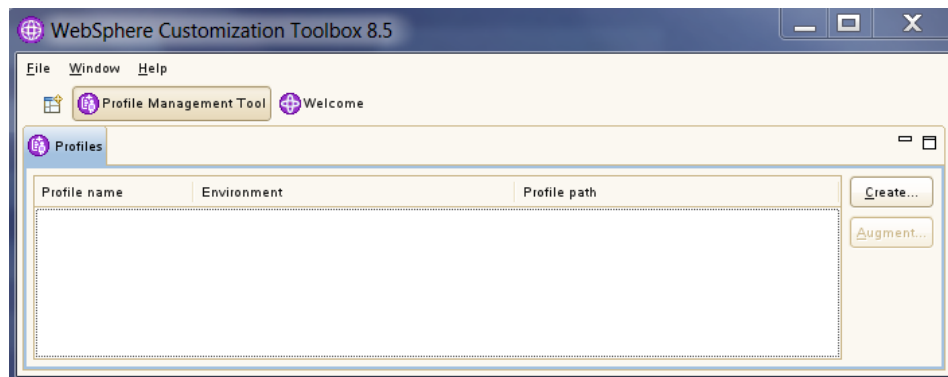
7.2.1 Graphical User Interface

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.

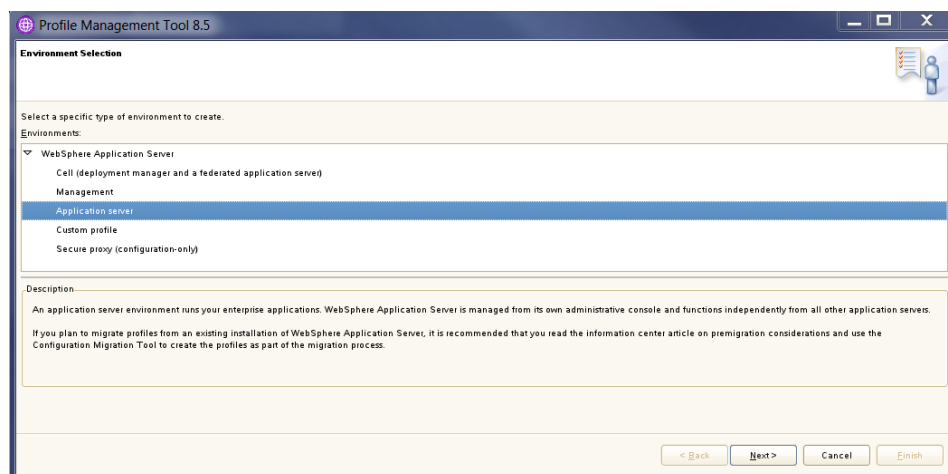
1. Start the Profile Manager Tool from the following options
 - Select “Profile Management Tool to create a profile” after the installation of WebSphere Application Server when using a GUI
 - pmt.exe or pmt.sh from the file system
 - WIN <WAS_HOME>\bin\ProfileManagement\pmt.bat
 - UNIX <WAS_HOME>/bin/ProfileManagement/pmt.sh

Example:

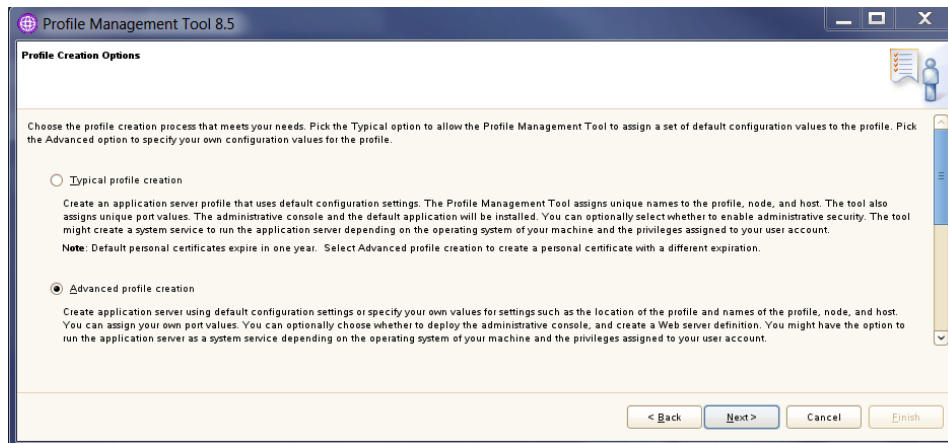
```
WIN      E:\IBM\WebSphere\AppServer\bin\ProfileManagement\pmt.bat
LINUX    /opt/IBM/WebSphere/AppServer/bin/ProfileManagement/pmt.sh
AIX      /usr/IBM/WebSphere/AppServer/bin/ProfileManagement/pmt.sh
```



2. Click Create

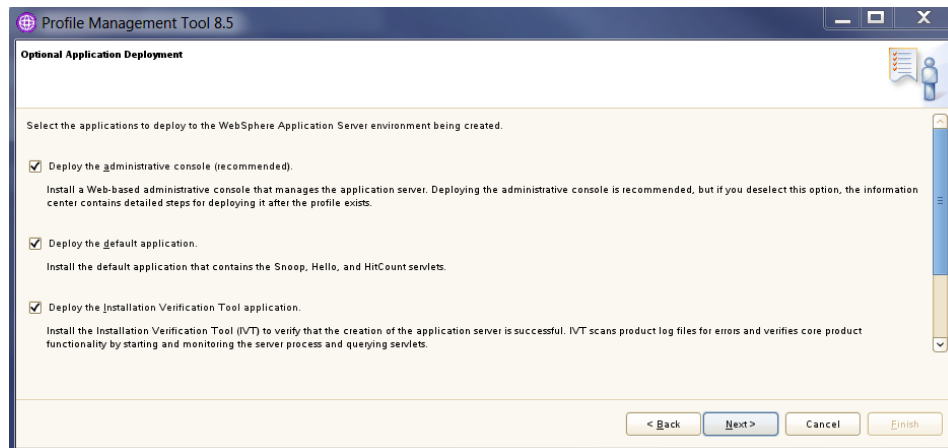


3. Select Application server
4. Click Next



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

Profile Name and Location

Specify a profile name and directory path to contain the files for the run-time environment, such as commands, configuration files, and log files. Click **Browse** to select a different directory.

Profile name:
feb_profile

Profile directory:
/opt/IBM/WebSphere/AppServer/profiles/feb_profile

Browse...

Select the performance tuning settings that most closely match the type of environment in which the application server will run. Review the information center article on performance tuning settings before choosing a setting because additional tuning still might be necessary to optimize the performance of the server for your applications.

Server runtime performance tuning setting:
Standard

Description:
The standard settings are optimized for general purpose usage with conservative settings. The performance monitoring infrastructure service is enabled to gather statistics so you can further tune the server yourself.

See the information center for more information about the performance tuning settings.
[View the online information center](#)

Important: Deleting the directory a profile is in does not completely delete the profile. Use the **manageprofiles** command to completely delete a profile.

The following naming rules must be used:
 - Names must start and end with alphabetic characters (A-Z, a-z), numbers (0-9), and underscores (_) only.

< Back Next > Cancel Finish

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

Node and Host Names

Specify a node name, a server name, and a host name for this profile.

Node name:
feb86Node01

Server name:
server1

Host name:
feb86.ibm.com

Node name: A node name is used for administration. If the node is federated, the name must be unique within the cell.
Server name: A server name is a logical name for the application server.
Host name: A host name is the domain name system (DNS) name (short or long) or the IP address of this computer and cannot contain an underscore (_).

The following naming rules must be used:
 - Names must start and end with alphabetic characters (A-Z, a-z), numbers (0-9), and underscores (_) only.
 - Names may contain alphabetic characters (A-Z, a-z), numbers (0-9), periods (.), dashes (-) and underscores (_) only.
 - Names must not contain spaces or these characters: / \ * . : ; = + ? [< > _ % " ' [] # \$ ^ { } |

If you plan to migrate an existing profile to the profile being created, read the premigration considerations article in the information center.
[View the online information center](#)

< Back Next > Cancel Finish

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: _____

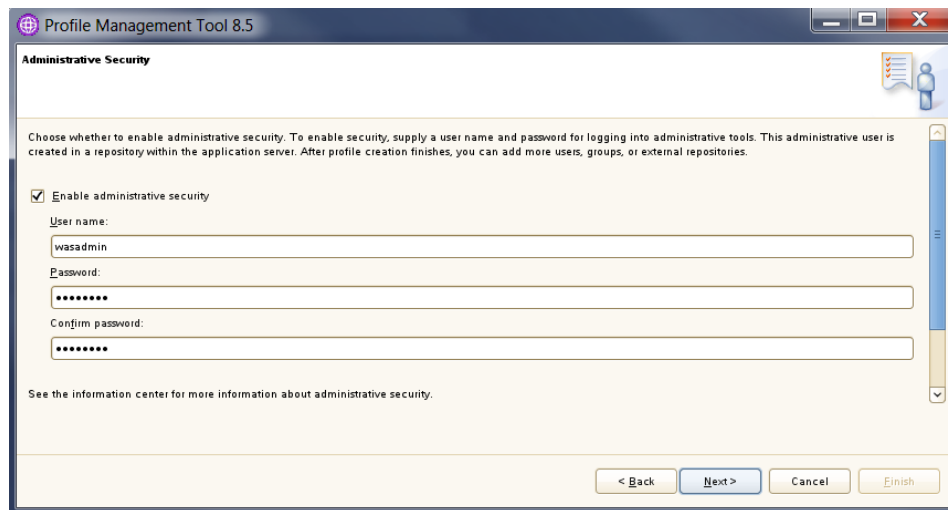
Example: `server1`

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

Host name: _____

Example: `feb86.ibm.com`

15. Click Next



The screenshot shows the 'Administrative Security' window of the Profile Management Tool 8.5. The window has a title bar with the application name and standard Windows window controls. The main content area is titled 'Administrative Security' and contains a paragraph explaining the purpose of administrative security. Below this, there is a checkbox labeled 'Enable administrative security' which is checked. Underneath the checkbox are three text input fields: 'User name:' with the value 'wasadmin', 'Password:' with masked characters, and 'Confirm password:' also with masked characters. At the bottom of the window, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Finish'. The 'Next >' button is highlighted in blue.

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 administrative 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

The screenshot shows the 'Security Certificate (Part 1)' window of the Profile Management Tool 8.5. The window has a title bar with standard Windows controls. Inside, there's a header with a globe icon and the title. Below the header, a paragraph explains the purpose: 'Choose whether to create a default personal certificate and root signing certificate, or import them from keystores. To create new certificates, proceed to Part 2 and provide the certificate information. To import existing certificates from keystores, locate the certificates then proceed to Part 2 and verify the certificate information.' There are two main sections. The first section, 'Default personal certificate', has a radio button selected for 'Create a new default personal certificate.' and another for 'Import an existing default personal certificate.' Below these are fields for 'Path:', 'Password:', 'Keystore type:', and 'Keystore alias:', each with a 'Browse...' button next to it. The second section, 'Root signing certificate', has a radio button selected for 'Create a new root signing certificate.' and another for 'Import an existing root signing certificate.' Below these are similar fields for 'Path:', 'Password:', 'Keystore type:', and 'Keystore alias:', each with a 'Browse...' button. At the bottom, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Finish'.

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

Profile Management Tool 8.5

Security Certificate (Part 2)

Modify the certificate information to create new certificates during profile creation. If you are importing existing certificates from keystores, use the information to verify whether the selected certificates contain the appropriate information. If the selected certificates do not, click **Back** to import different certificates.

[Restore Defaults](#)

Default personal certificate (a personal certificate for this profile, public and private key):

Issued to distinguished name:

Issued by distinguished name:

Expiration period in years:

Root signing certificate (personal certificate for signing other certificates, public and private key):

Expiration period in years:

Default keystore password:

Confirm the default keystore password:

Note: The default value for the keystore is well documented in the Information Center and should be changed to protect the security of the keystore files and SSL configuration.

< Back Next > Cancel Finish

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

22. Click Next

Profile Management Tool 8.5

Port Values Assignment

The values in the following fields define the ports for the application server and do not conflict with other profiles in this installation. Another installation of WebSphere Application Server or other programs might use the same ports. To avoid run-time port conflicts, verify that each port value is unique.

Default Port Values **Recommended Port Values**

Administrative console port (Default 9060):	9060
Administrative console secure port (Default 9043):	9043
HTTP transport port (Default 9080):	9080
HTTPS transport port (Default 9443):	9443
Bootstrap port (Default 2809):	2809
SIP port (Default 5060):	5060
SIP secure port (Default 5061):	5061
SOAP connector port (Default 8880):	8880
Administrative interprocess communication port (Default 9633):	9633
SAS SSL ServerAuth port (Default 9401):	9401
CSV2 ServerAuth listener port (Default 9403):	9403
CSV2 MultiAuth listener port (Default 9402):	9402
QRB listener port (Default 9100):	9100
High availability manager communication port (DCS)(Default 9353):	9353
Service integration port (Default 7276):	7276
Service integration secure port (Default 7286):	7286
Service integration MQ interoperability port (Default 5558):	5558
Service integration MQ interoperability secure port (Default 5578):	5578
Administration overlay UDP port (Default 11003):	11003
Administration overlay TCP port (Default 11004):	11004

< Back Next > Cancel Finish

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

Profile Management Tool 8.5

Linux Service Definition

Choose whether to use a Linux service to run WebSphere Application Server.

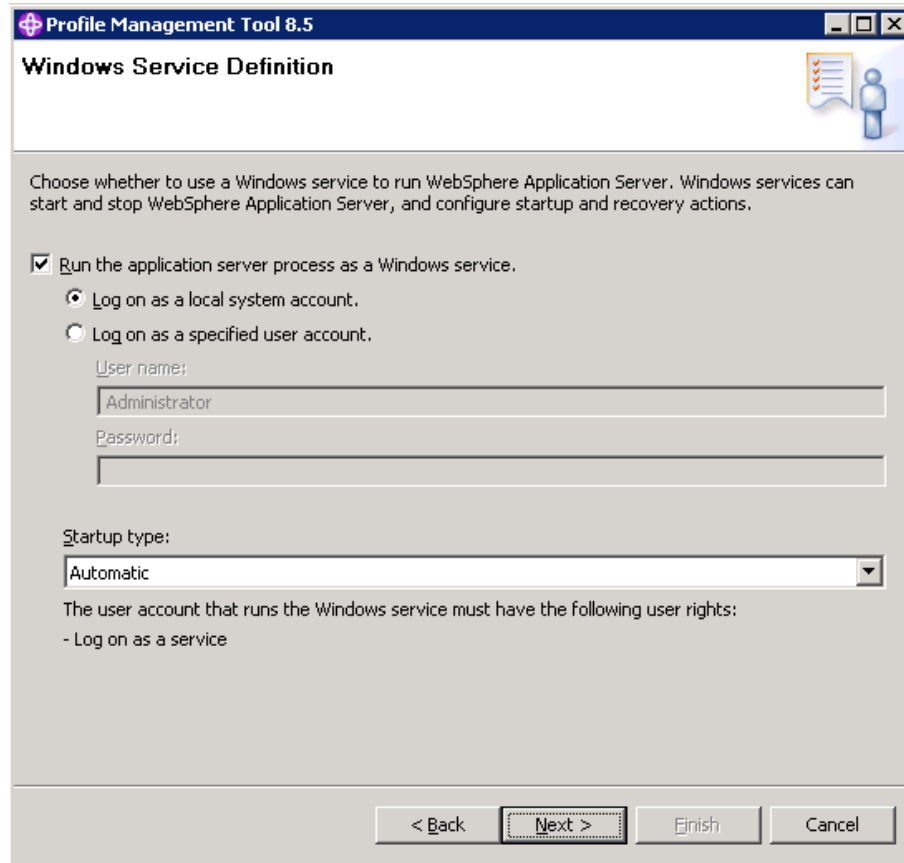
☐ Run the application server process as a Linux service.

User name:

< Back Next > Cancel Finish

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



The screenshot shows the 'Profile Management Tool 8.5' window with the 'Windows Service Definition' tab selected. The window has a title bar with standard Windows controls. The main content area contains the following elements:

- Instructions:** 'Choose whether to use a Windows service to run WebSphere Application Server. Windows services can start and stop WebSphere Application Server, and configure startup and recovery actions.'
- Service Selection:** A checked checkbox labeled 'Run the application server process as a Windows service.'
- Logon Options:** Two radio buttons: 'Log on as a local system account.' (selected) and 'Log on as a specified user account.'
- User Fields:** If the specified user option is selected, there are text boxes for 'User name:' (containing 'Administrator') and 'Password:' (empty).
- Startup Type:** A dropdown menu labeled 'Startup type:' with 'Automatic' selected.
- User Rights:** A note stating 'The user account that runs the Windows service must have the following user rights:' followed by a list item '- Log on as a service'.
- Navigation Buttons:** At the bottom, there are four buttons: '< Back' (disabled), 'Next >' (active/highlighted), 'Finish' (disabled), and 'Cancel' (disabled).

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 service” 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

Web Server Definition

Optionally create a Web server definition if you use a Web server to route requests for dynamic content to the application server. Alternatively, you can create a Web server definition from the administrative console or a script that is generated during Web server plug-ins installation.

☐ Create a Web server definition

Web server type:
IBM HTTP Server

Web server operating system:
Linux

Web server name:
webserver1

Web server host name or IP address:
feb86.ibm.com

Web server port (Default 80):
80

< Back Next > Cancel Finish

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

Profile Creation Summary

Review the information in the summary for correctness. If the information is correct, click **Create** to start creating a new profile. Click **Back** to change values on the previous panels.

Application server environment to create: Application server
Location: /opt/IBM/WebSphere/AppServer/profiles/feb_profile
Disk space required: 200 MB

Profile name: feb_profile
Make this profile the default: True
Performance tuning setting: Standard

Node name: feb86Node01
Server name: server1
Host name: feb86.ibm.com

Deploy the administrative console (recommended): True
Deploy the default application: True
Deploy the Installation Verification Tool application: True

Enable administrative security (recommended): True

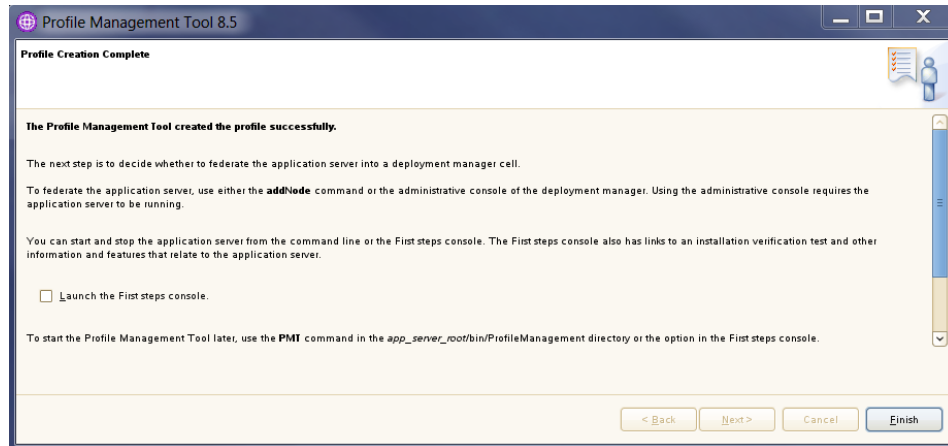
Administrative console port: 9060
Administrative console secure port: 9043
HTTP transport port: 9080
HTTPS transport port: 9443
Bootstrap port: 2809
SOAP connector port: 8880

Run application server as a service: False

< Back Create Cancel Finish

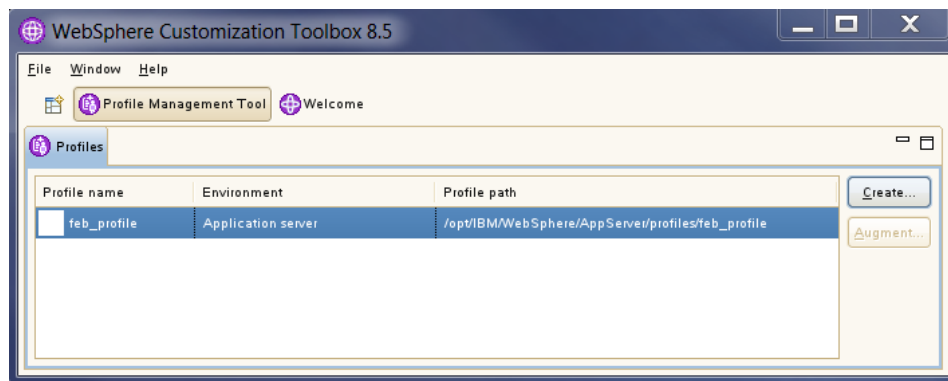
31. Review the Summary information. If anything is incorrect, click back and fix the problem.

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

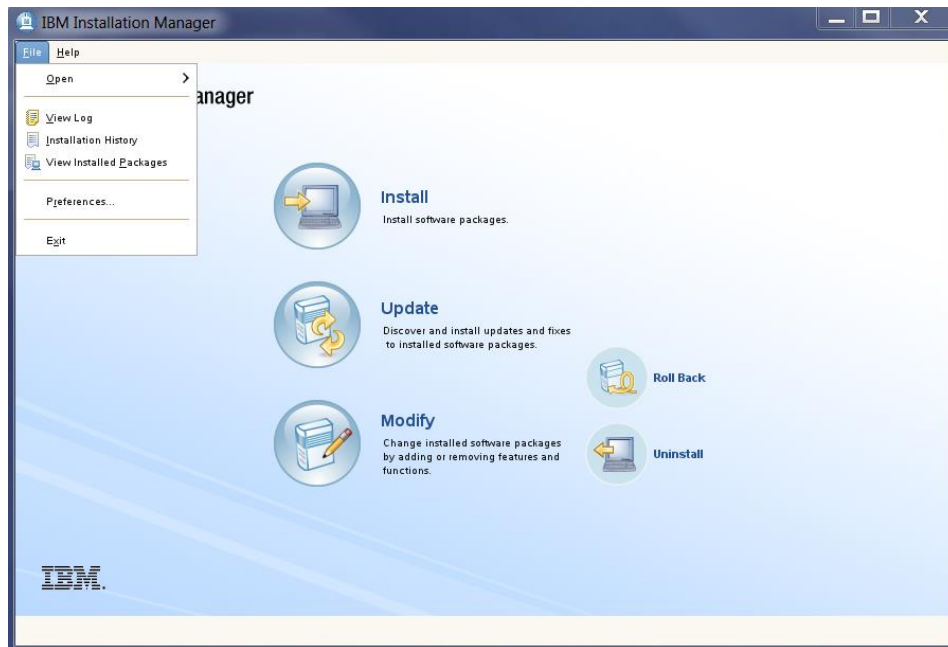
If you are using the graphical user interface to install on a UNIX environment, verify the UNIX environment is configured to display a remote graphical user interface.

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...



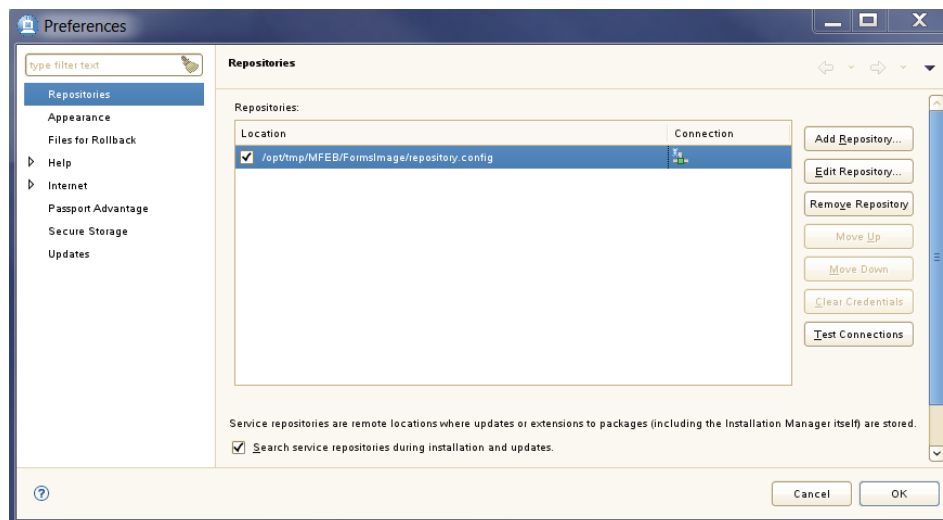
6. Enter/Browse to the repository.config of the IBM Forms Experience Builder located in the FormsImage of the media files

<MFEB>/FormsImage/repository.config

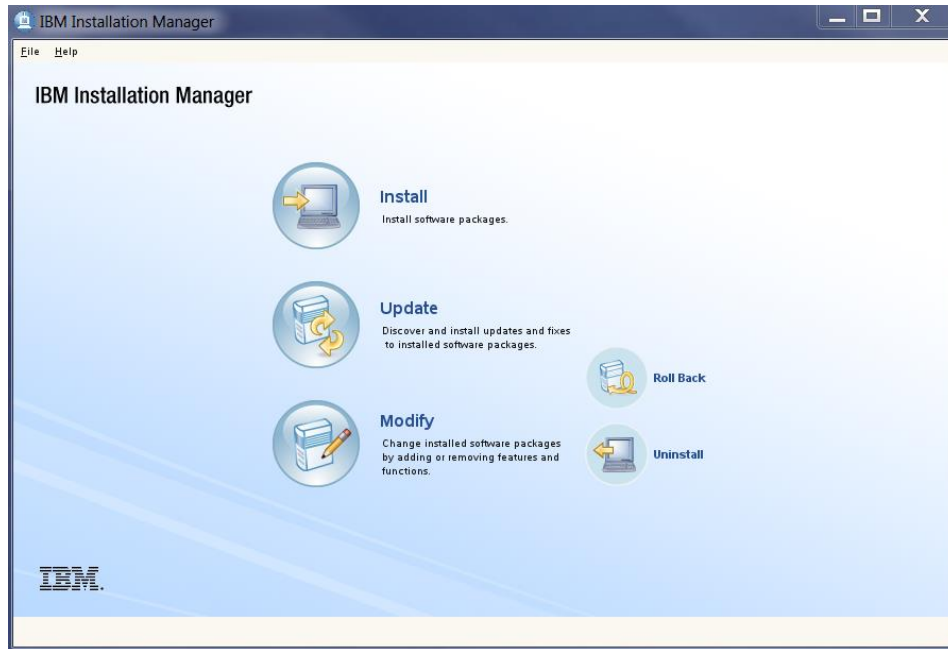
Example

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

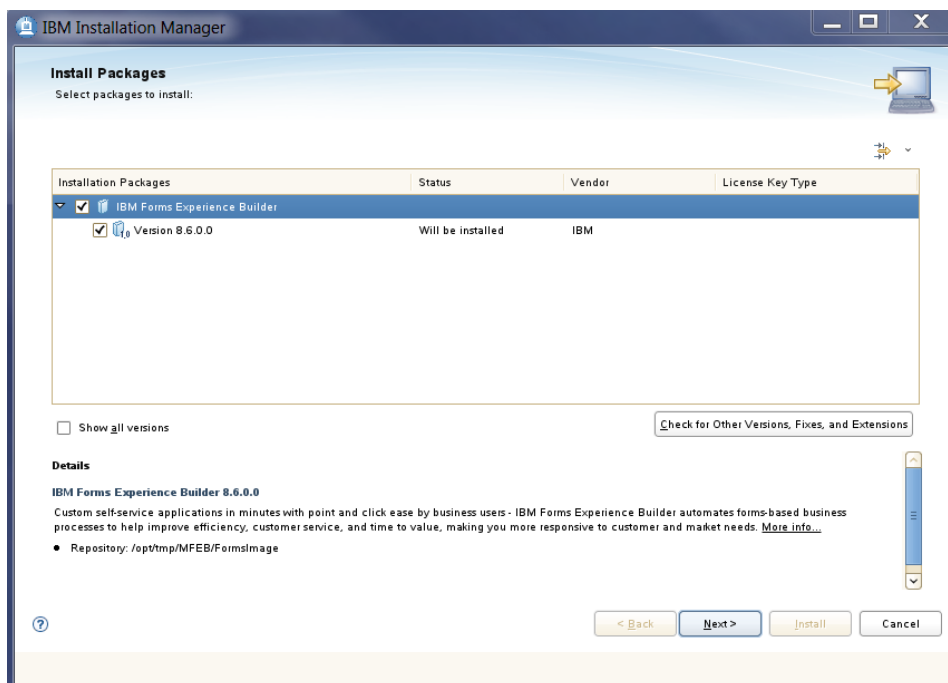
7. Click OK



8. Click OK



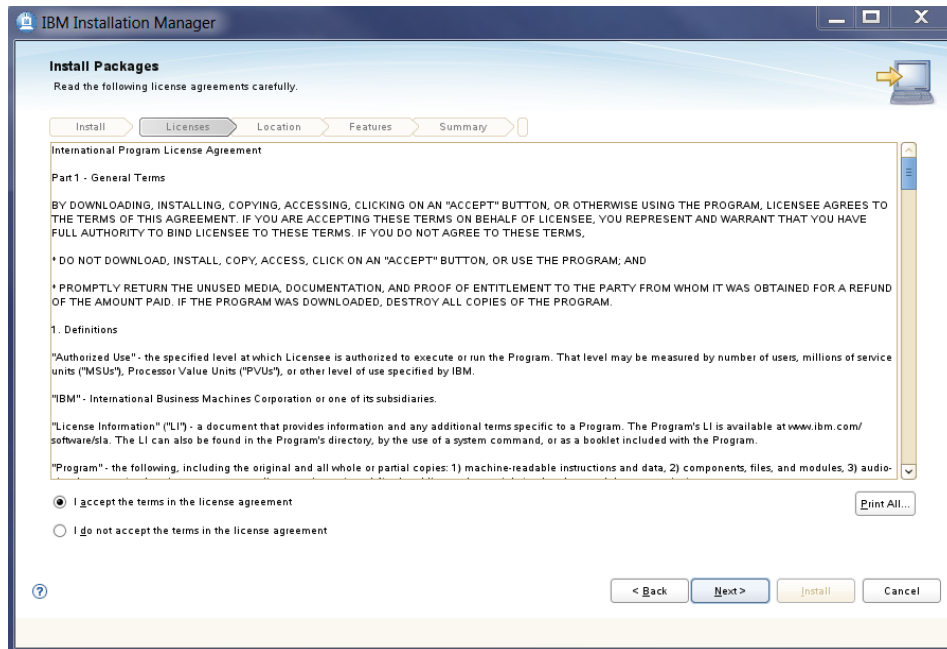
9. Click Install



10. Under Installation Packages, check the following

IBM Forms Experience Builder
Version 8.6.0.0

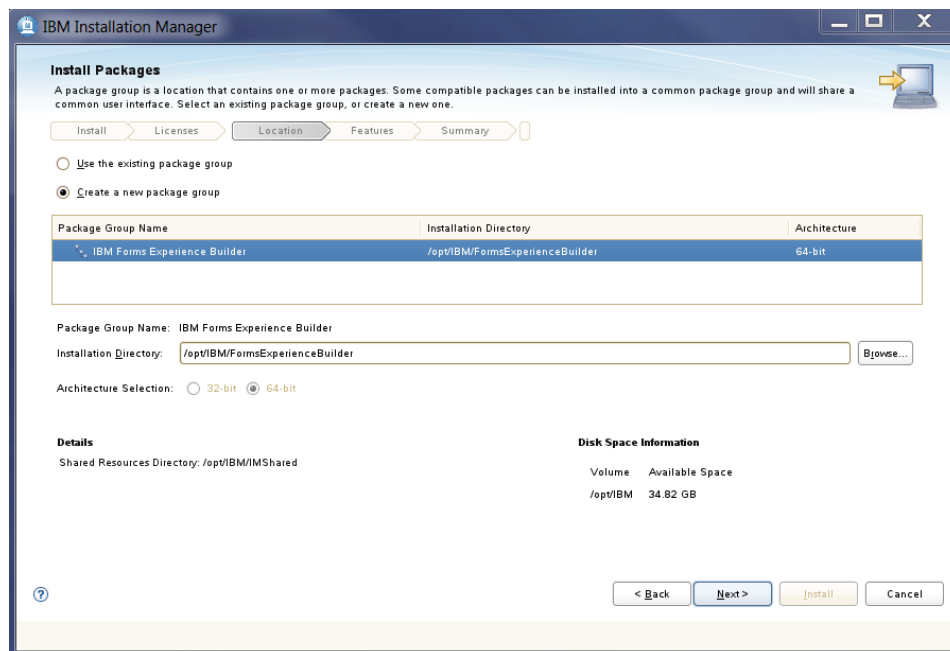
11. Click Next



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”

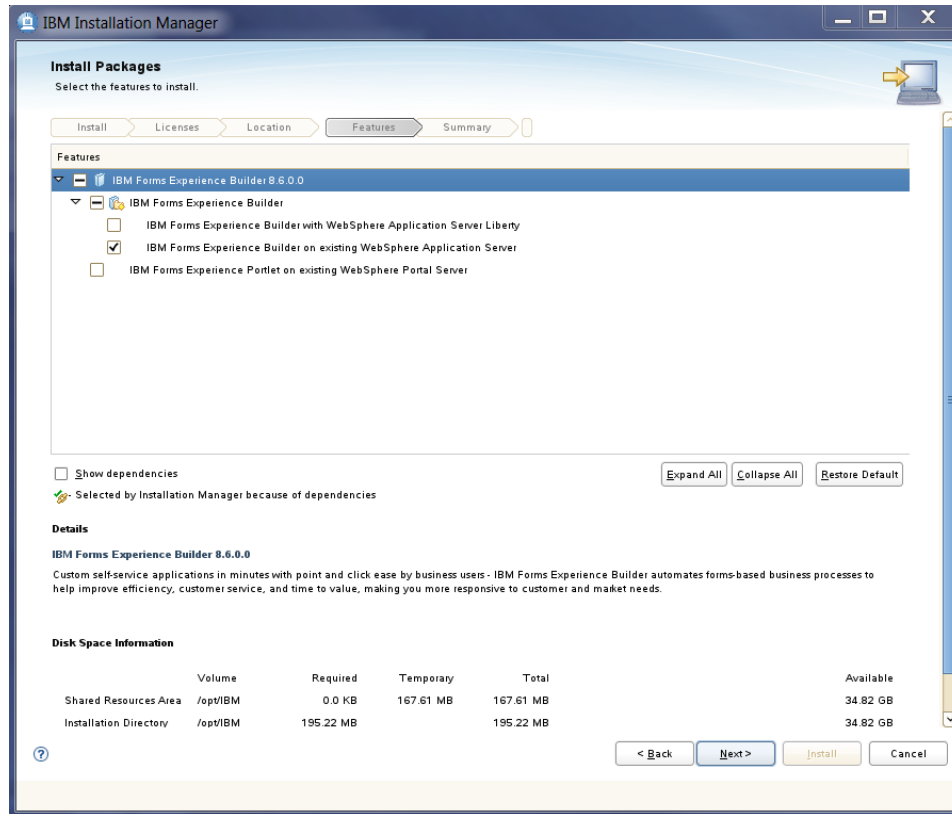
16. Enter/Verify the installation directory for the IBM Forms Experience Builder

Installation Directory: _____

Example:

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

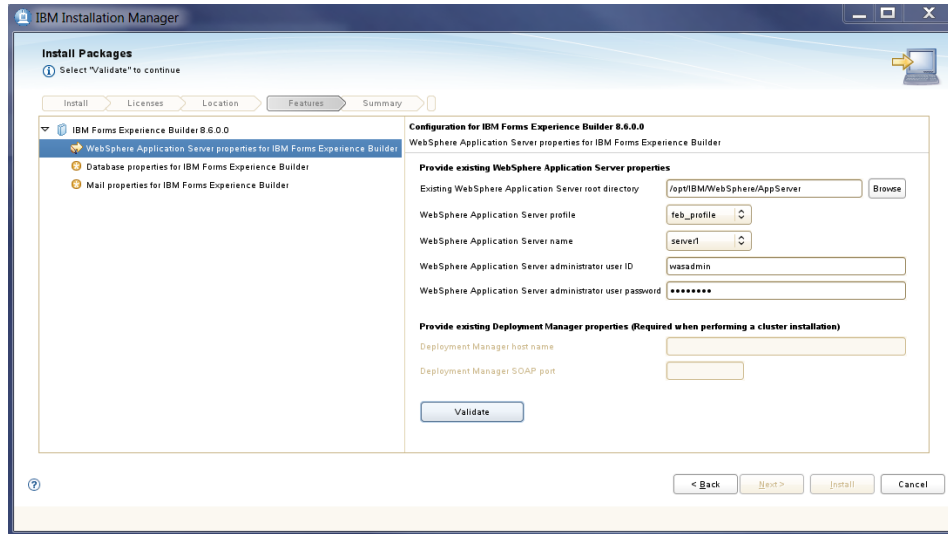
17. Click Next



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

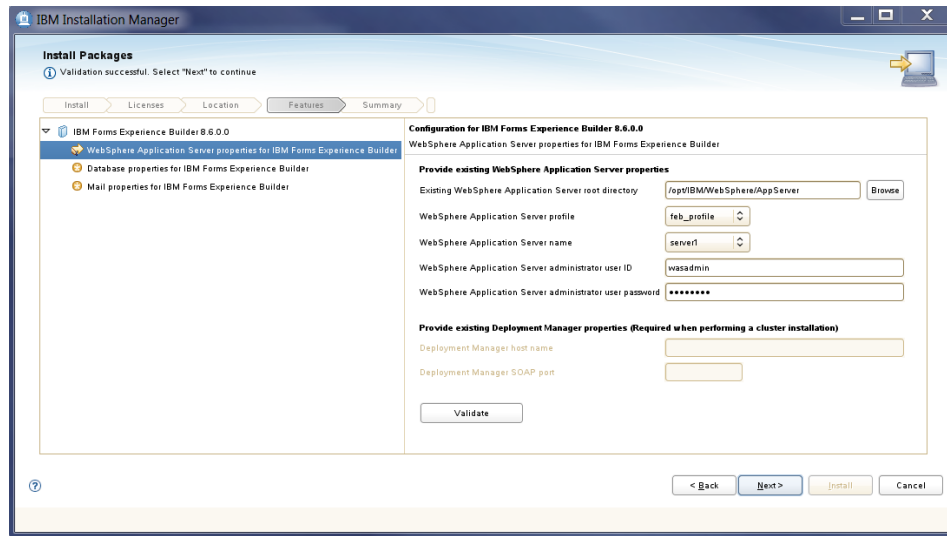
22. Select the WebSphere Application Server name. This was created during the profile creation

Example: server1

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

Example: wasadmin/XXXX

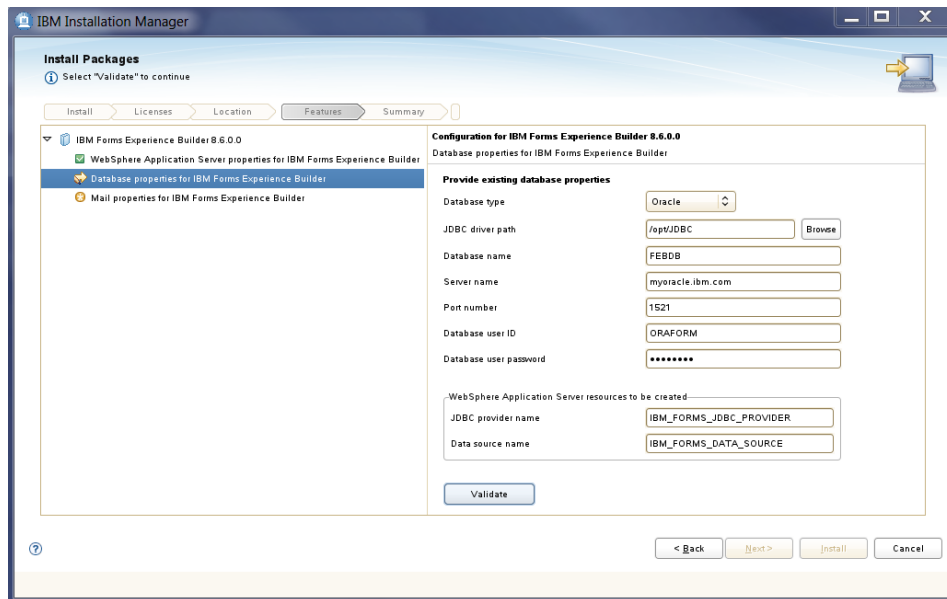
24. Click Validate



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.

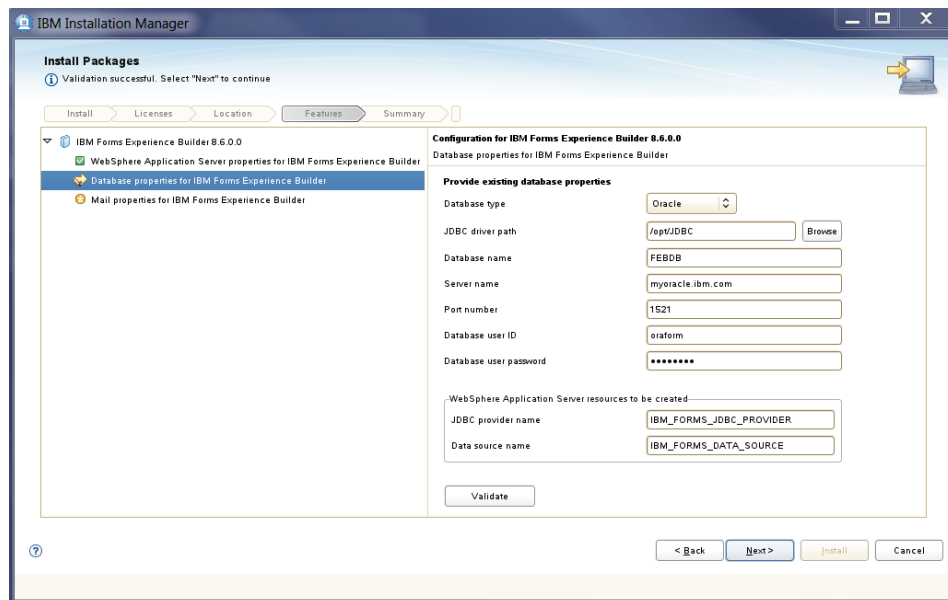
Example: 1521

32. Database user ID, enter the Oracle Database user

Example: ORAFORM

33. Database user password, enter the Oracle database password

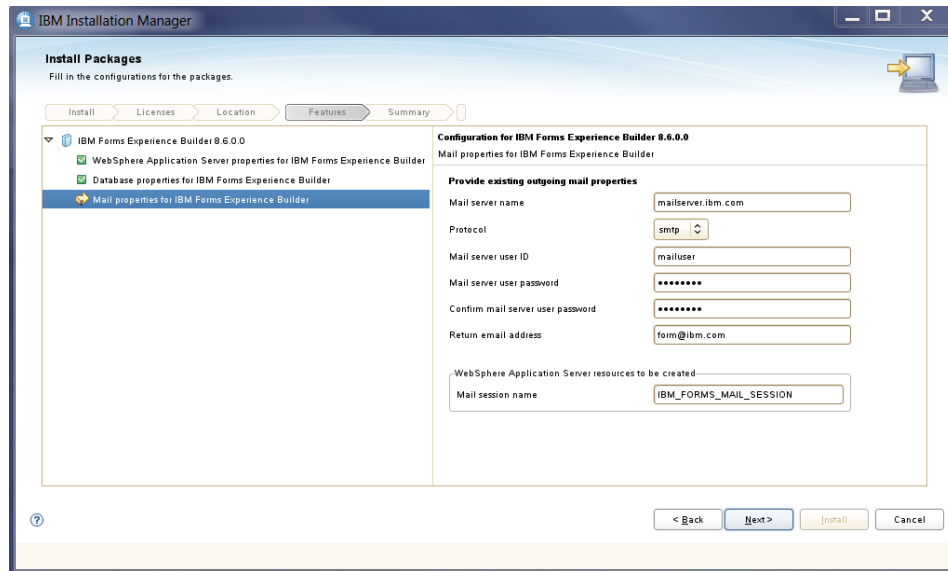
34. Click Validate



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`

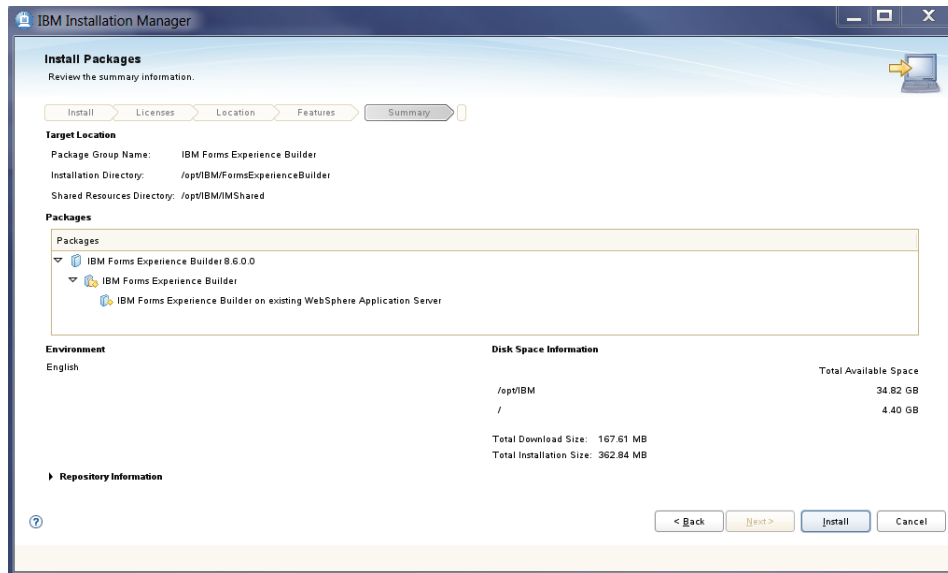
39. Enter the Mail server user ID and password

Example: `mailuser/XXXX`

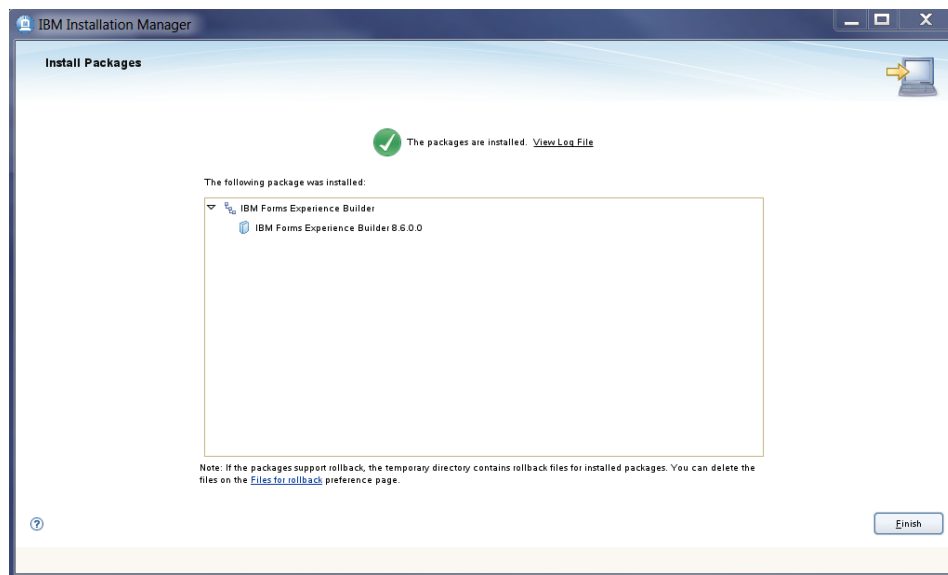
40. Enter the “Return email address”

Example: `form@us.ibm.com`

41. Click Next



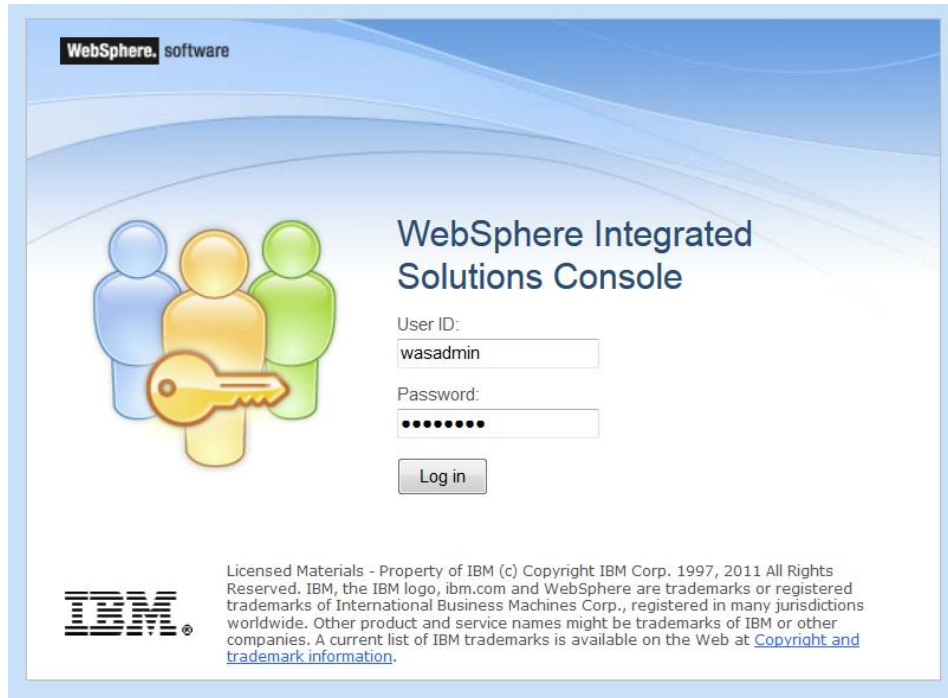
42. Click Install



43. Click Finish

8.2 Configuration

8.2.1 Forms Experience Builder AdminAlias

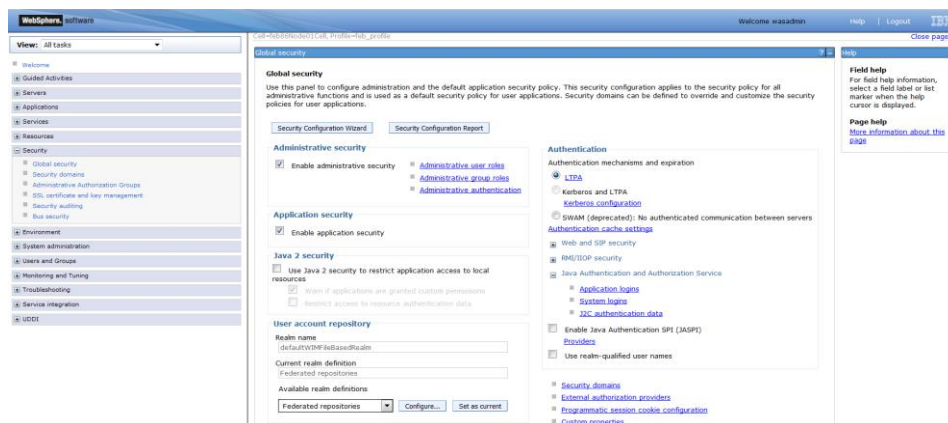


1. Open a browser and set the url to the WebSphere Application Server console

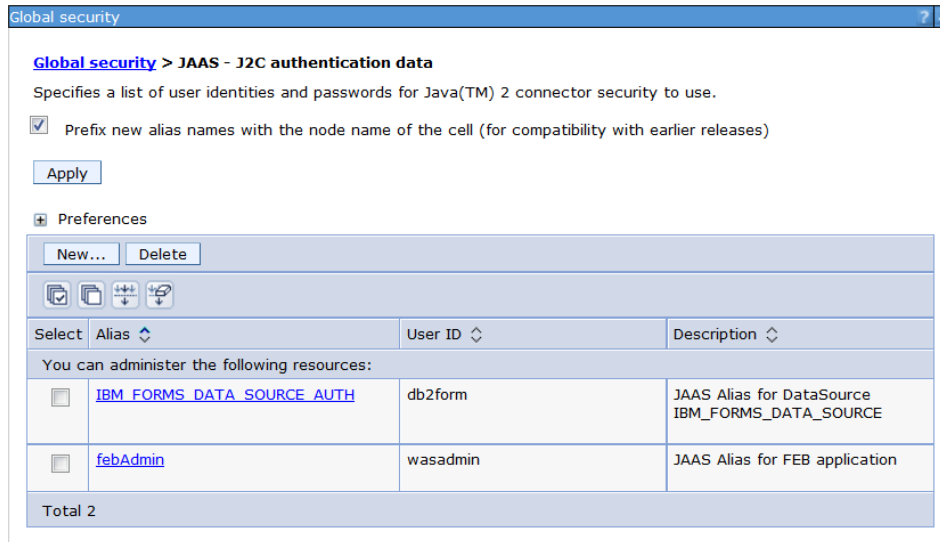
`https://<HOSTNAME>:<PORT>/ibm/console`

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.properties
```

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”


IBM Forms

IBM Forms Experience Builder 8.6.0

User ID:

Password:

Log In



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

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 2: Secured Environment Setup

Step 1: Mail Session

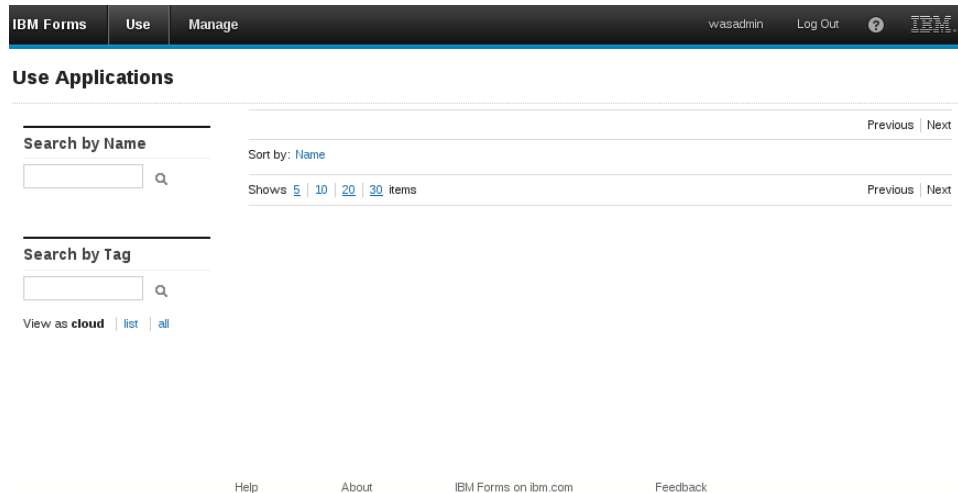
☒ The mail session has been provided and configured.

Step 2: Application Dependencies

☒ The applications are up-to-date.

Continue to Manager

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 with 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.d/oc/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

WebSphere, software

Welcome wasadmin Help Logout IBM

Cell=ibm66Nock01Cell, Profile=web_profile Close page

Web servers

Use this page to view a list of the installed web servers.

Preferences

Generate Plug-in Propagate Plug-in New... Delete Templates... Start Stop Terminate

Select	Name	Web server Type	Node	Host Name	Version	Status
<input checked="" type="checkbox"/>	webserver1	IBM HTTP Server	myihs.ibm.com-node	myihs.ibm.com	Not applicable	

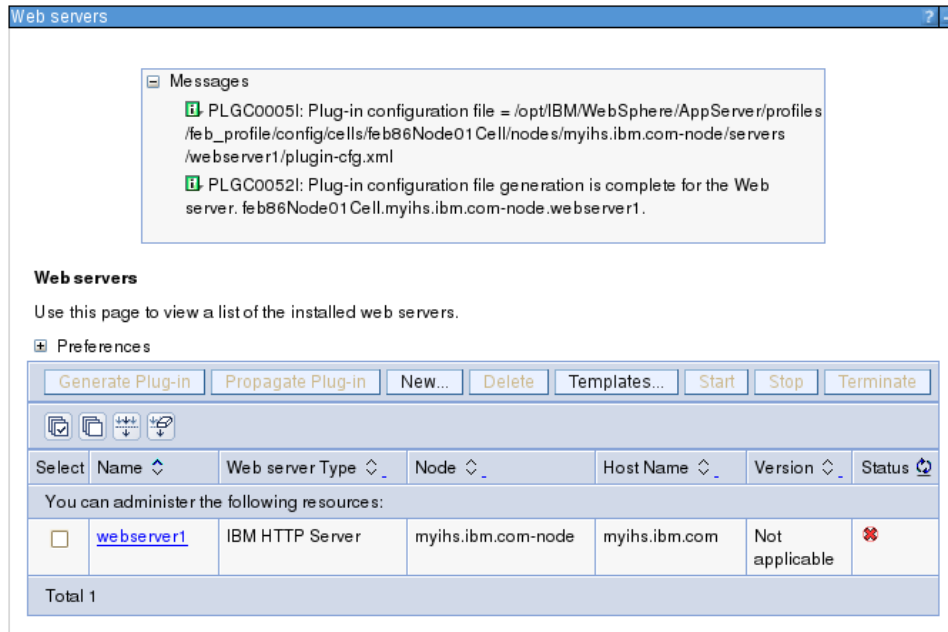
Total 1

Field help
For field help information, select a field label or list marker when the help cursor is displayed.

Page help
[More information about this page](#)

Command Assistance
[View Administrative assistance command for last action](#)

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

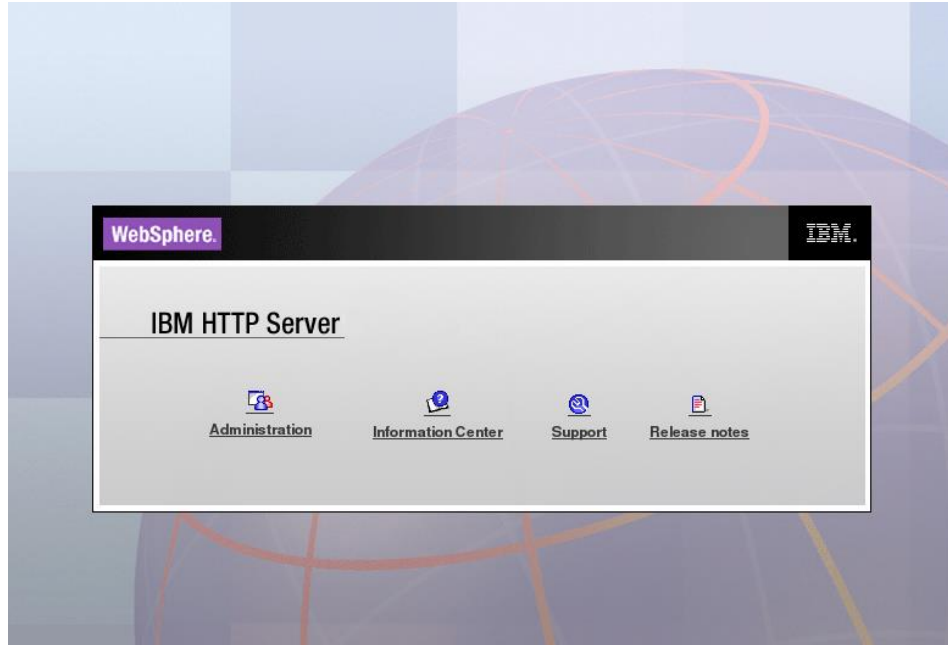
FROM:

```
/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`

IBM Forms

IBM Forms Experience Builder 8.6.0

User ID:

Password:



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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:

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 not been provided.

Step 2: Database Tables


 The database table status has not yet been determined due to an earlier problem.

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.

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.