

# **IBM Forms Experience Builder 8.6 Cluster Installation with DB2**

\*\*\*\*\*  
**Table of Content**  
\*\*\*\*\*

1	Information .....	4
2	Media .....	5
2.1	IBM Forms Experience Builder 8.6 .....	5
2.2	WebSphere Application Server.....	6
2.3	DB2 .....	7
2.4	WebSphere Supplements.....	8
3	Pre-requisite .....	10
4	Database.....	11
4.1	Install.....	11
4.2	Create DB2 Database .....	19
4.3	User Permission.....	20
4.4	JDBC Driver.....	22
5	Mail Server.....	23
6	IBM Installation Manager.....	24
7	WebSphere Application Server.....	26
7.1	Install.....	26
7.1.1	Graphical User Interface .....	26
7.1.2	Command Line.....	34
7.2	Deployment Manager – Create Profile.....	35
7.2.1	GUI .....	35
7.2.2	Command Line.....	45
7.3	FEB – Create Profile .....	46
7.3.1	GUI .....	46
7.3.2	Command Line.....	53
7.4	Create Cluster.....	55
8	IBM Forms Experience Builder.....	59
8.1	Install.....	59
8.2	Configuration .....	68
8.2.1	Forms Experience Builder AdminAlias.....	68
8.2.2	Builder_config.properties .....	70
8.2.3	Service Catalog .....	71
8.3	Post Installation – Browser .....	71
8.4	Post Installation – Database .....	75
9	WebServer.....	78
9.1	Install.....	78
9.2	Plugin Script.....	80
9.2.1	Windows .....	80
9.2.2	UNIX.....	82
9.3	Generate/Propagate Plugin .....	85
10	Whats Next.....	90
10.1	Upgrade IBM Forms Experience Builder.....	90
10.2	Enable Security.....	90

10.3	Integrating with IBM WebSphere Portal.....	91
10.4	Starter Pack.....	91
11	Troubleshoot .....	92
11.1	No “Fix” button During Post Installation Step.....	92
*****		

# 1 Information

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

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. DB2 will be the database focus for this document. DB2 must be pre-installed and configured before the IBM Forms Experience Builder installation.

The images and steps in the document are based from a Linux installation unless specified. This document will have examples for Windows and AIX to help with installation on those environments.

Useful links:

- IBM Forms 8.6 Infocenter  
[http://www.ibm.com/support/knowledgecenter/SS6KJL\\_8.6.0/Welcome/FEB\\_Welcome.html](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](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](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 Cluster Installation

## 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

<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
CIK2HTML	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 DB2

1. Download the following DB2 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
CIWN9ML	DB2_10.5.0.3_limited_Win_x86-64.exe	IBM DB2 Workgroup Server Edition - Restricted Use V10.5 for Windows on AMD64 and Intel EM64T systems (x64) Multilingual
CIXU9ML	DB2_10.5.0.3_limited_Lnx_x86-64.tar.gz	IBM DB2 Workgroup Server Edition - Restricted Use V10.5 for Linux on AMD64 and Intel EM64T systems (x64) Multilingual
CIWN5ML	DB2_10.5.0.3_limited_CD_AIX.tar.gz	IBM DB2 Workgroup Server Edition - Restricted Use V10.5 for AIX Multilingual

2. Extract all files to a temporary directory. After DB2 is extracted it will be contained in a single directory.

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

Example: WINDOWS

```
<tmp>\SERVER_R\image\db2\...
<tmp>\SERVER_R\image\ibm_im\...
<tmp>\SERVER_R\image\autorun.inf
<tmp>\SERVER_R\image\db2NewRegHKLM.txt
<tmp>\SERVER_R\image\db2prereqcheck.exe
<tmp>\SERVER_R\image\DB2prereqs.xml
<tmp>\SERVER_R\image\db2unins
```

```
<tmp>\SERVER_R\image\db2unins.bat  
<tmp>\SERVER_R\image\setup.exe
```

**Example: LINUX**

```
<tmp>/server_r/db2/...  
<tmp>/server_r/ibm_im/...  
<tmp>/server_r/nlpack/...  
<tmp>/server_r/db2ckupgrade  
<tmp>/server_r/db2_deinstall  
<tmp>/server_r/db2_install  
<tmp>/server_r/db2ls  
<tmp>/server_r/db2prereqcheck  
<tmp>/server_r/db2setup  
<tmp>/server_r/installFixPack
```

**Example: AIX**

```
<tmp>/server_r/db2/...  
<tmp>/server_r/nlpack/...  
<tmp>/server_r/db2ckupgrade  
<tmp>/server_r/db2_deinstall  
<tmp>/server_r/db2_install  
<tmp>/server_r/db2ls  
<tmp>/server_r/db2prereqcheck  
<tmp>/server_r/db2setup  
<tmp>/server_r/installFixPack
```

## 2.4 WebSphere Supplements

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_O_F_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (1 of 3) for Multiplatform Multilingual
CIK1WML	WAS_V8.5.5_SUPP_2_O_F_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (2 of 3) for Multiplatform Multilingual
CIK1XML	WAS_V8.5.5_SUPP_3_O_F_3.zip	IBM WebSphere Application Server V8.5.5 Supplements (3 of 3) for Multiplatform

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

MWASSUP = \_\_\_\_\_

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

[http://www.ibm.com/support/knowledgecenter/SS6KJL\\_8.6.0/FEB/in\\_create\\_db2.html](http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/in_create_db2.html)

An external database is required for a production environment. The following section will help with the installation of DB2 and creation of the DB2 database for an IBM Forms Experience Builder installation.

### 4.1 Install

There are multiple ways of installing DB2. This is just one way and might not be the exact way that is installed on your environment because of requirements. Use this installation as a guide for the DB2 server installation.

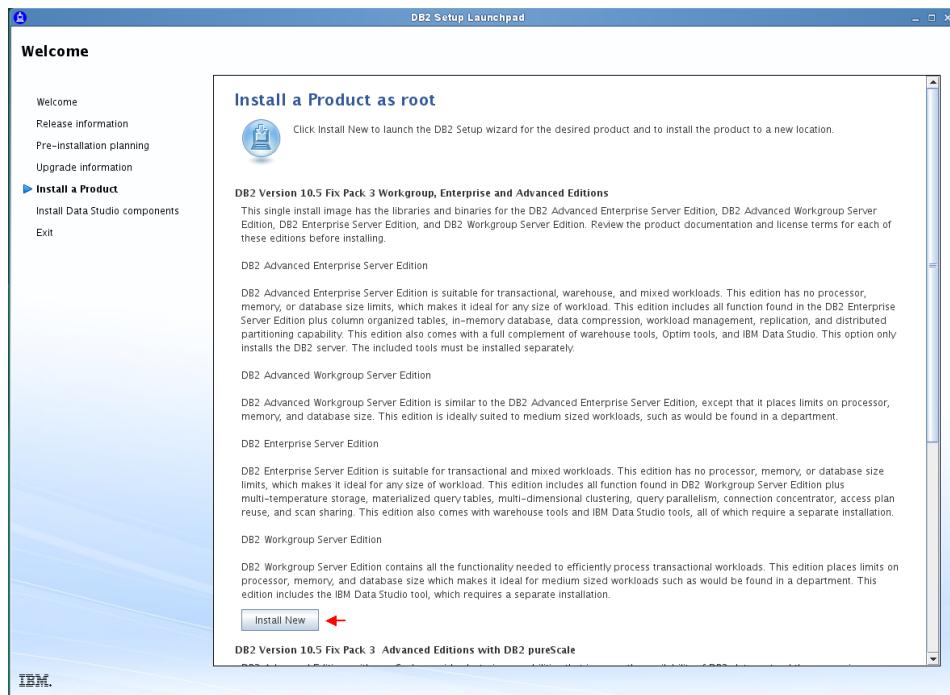
The images in this section were captured from a Linux installation.

1. Login to the DB2 Server file system as an Administrator/root user
2. Start the DB2 setup from the temporary media directory

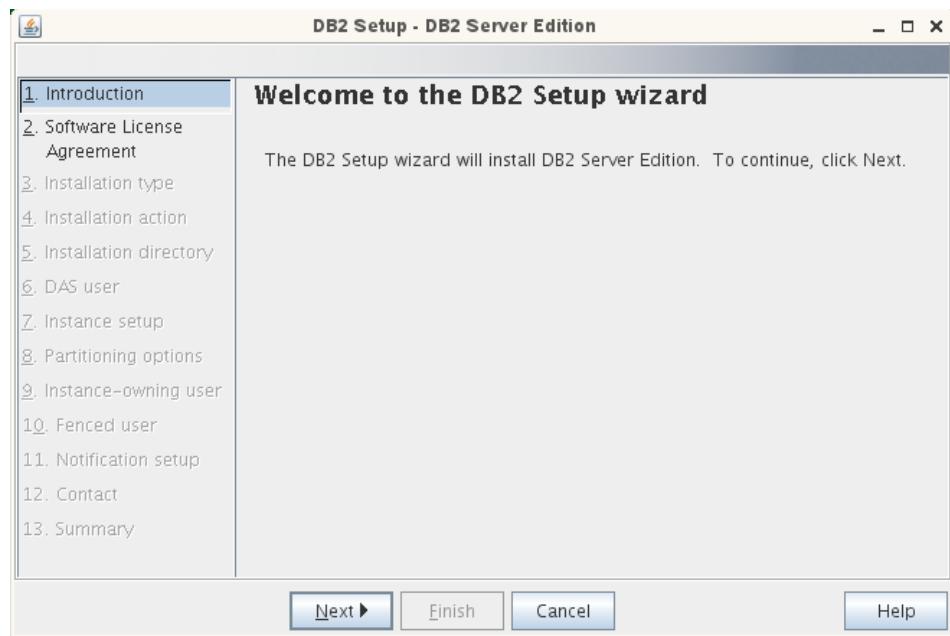
```
WIN      <MEDIA>/SERVER_R/image/setup.exe  
UNIX    <MEDIA>/server_r/db2setup
```



3. On the left menu, select Install a Product



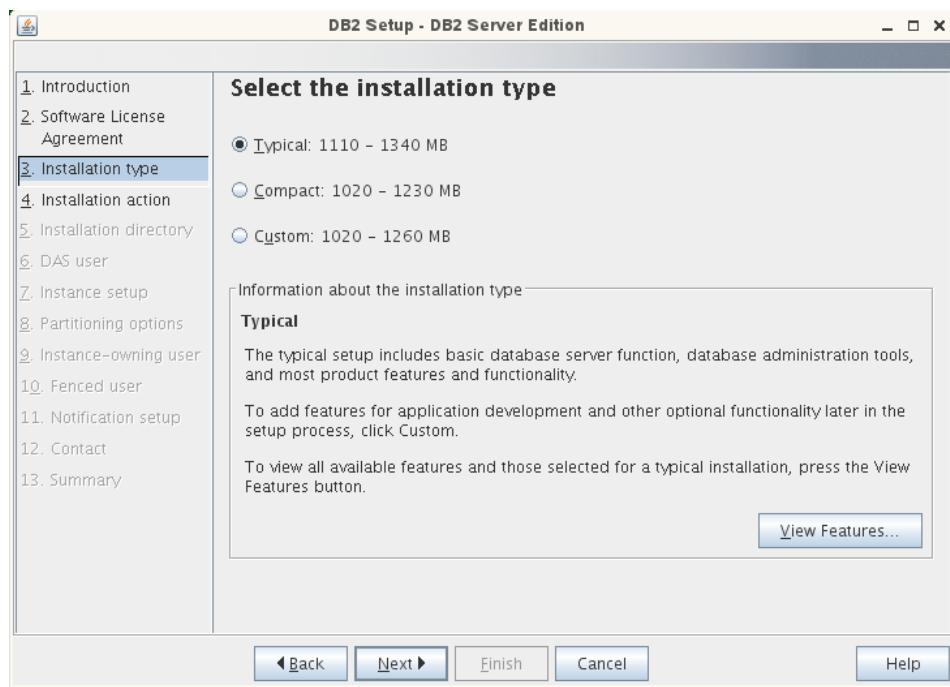
4. Under DB2 Version 10.5 Fixpack 3 Workgroup, Enterprise and Advanced Editions, click Install New



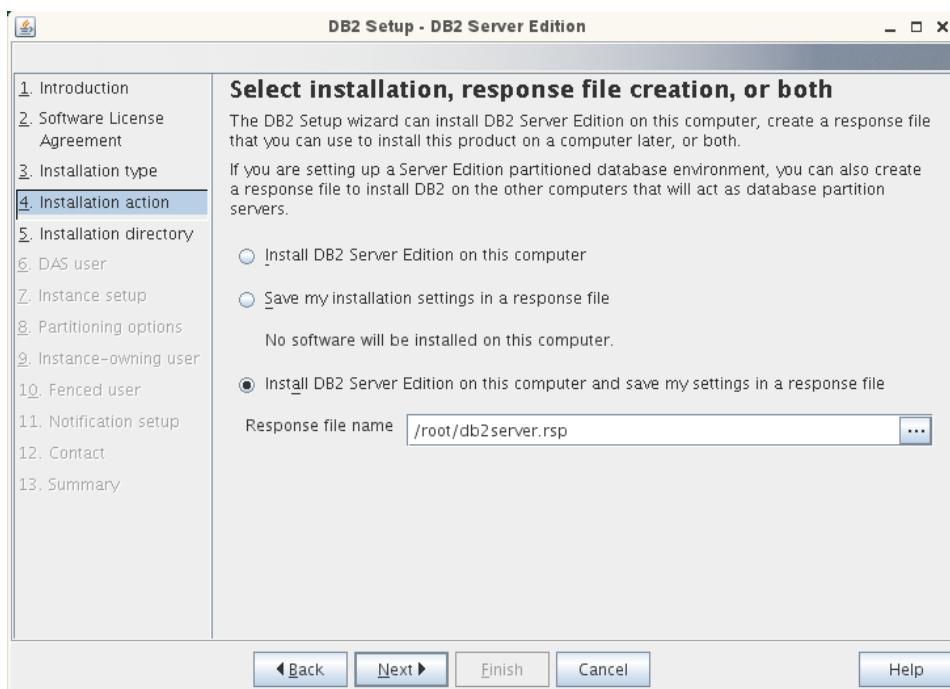
5. Click Next



6. Review the Software License Agreement
7. Select “I accept the terms in the license agreement”
8. Click Next



9. Select the type of Installation. In this example “Typical” installation type was selected. If Typical does not meet the configuration requirement, “Custom” may be required.
10. Click Next



11. By default, “Install DB2 Server Edition on this computer and save my settings in a response file” was selected. In the example the default was selected.
12. Verify/Enter the location of where the response file will be stored for future use
13. Click Next



14. Verify/Enter the location of where DB2 will be installed

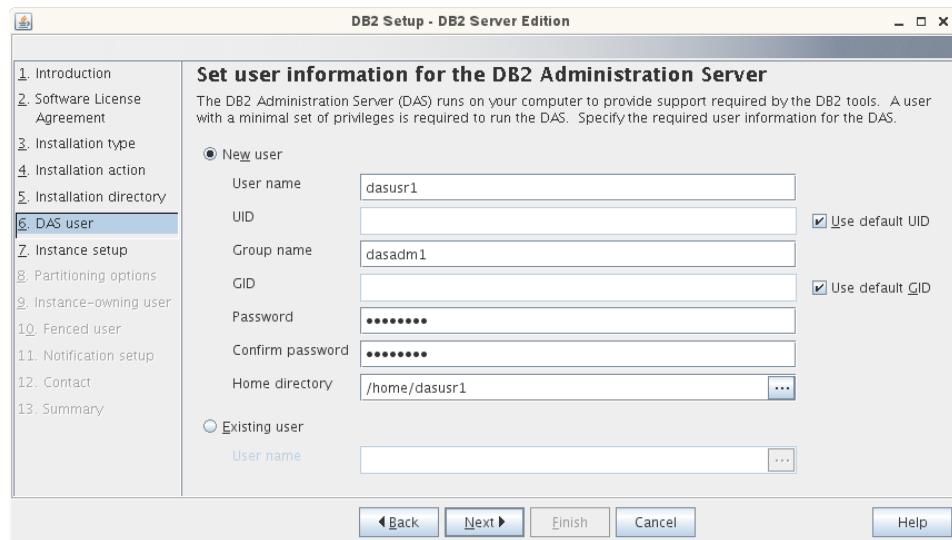
DB2\_HOME = \_\_\_\_\_

Example:

WIN	E:\IBM\db2\v10.5
LINUX	/opt/IBM/db2/V10.5

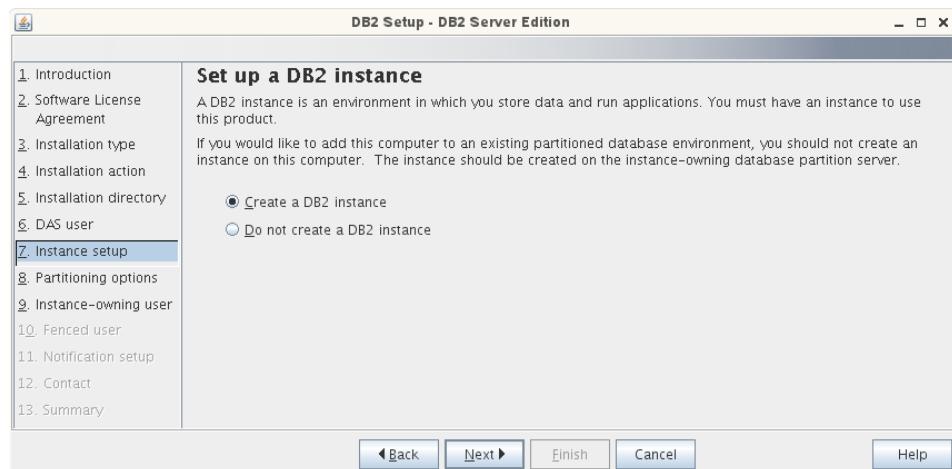
AIX /usr/IBM/db2/V10.5

15. Click Next



16. Select either “New User” or “Exisiting user”. Fill in the information required for the selection. In the example, “New user” was selected as default and the Password was filled in.

17. Click Next



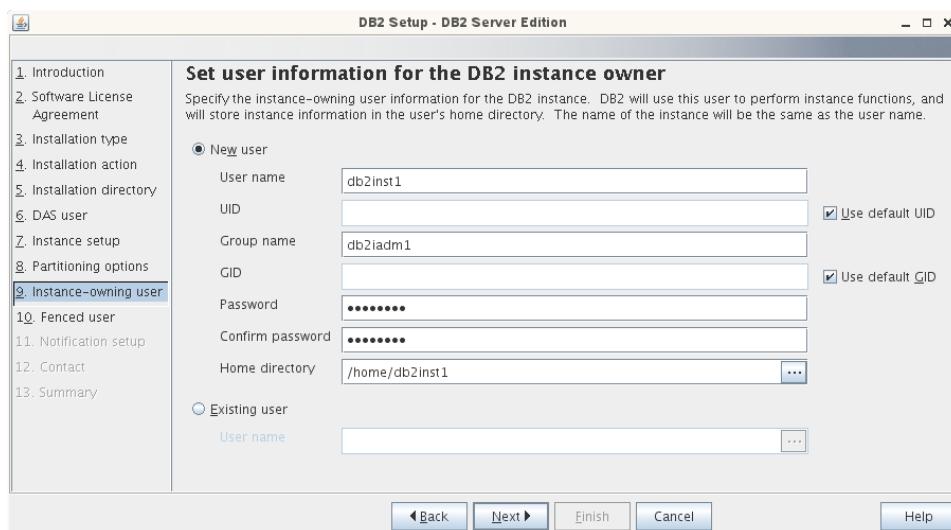
18. Select “Create a DB2 instance”

19. Click Next



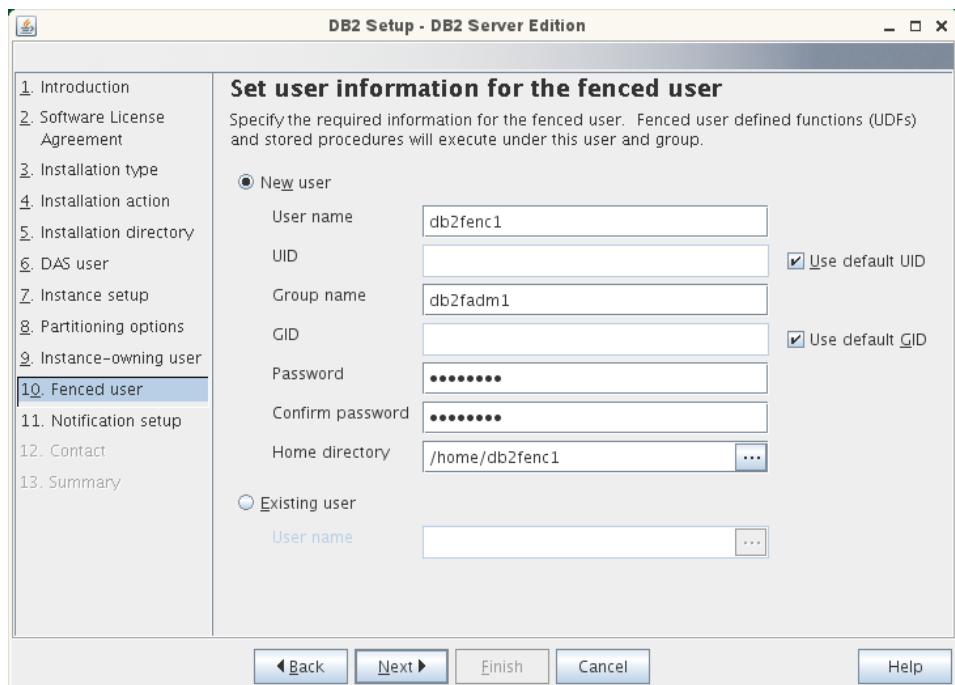
20. Select the type of partitioning. In the example, “Single partition Instance” was selected by default.

21. Click Next



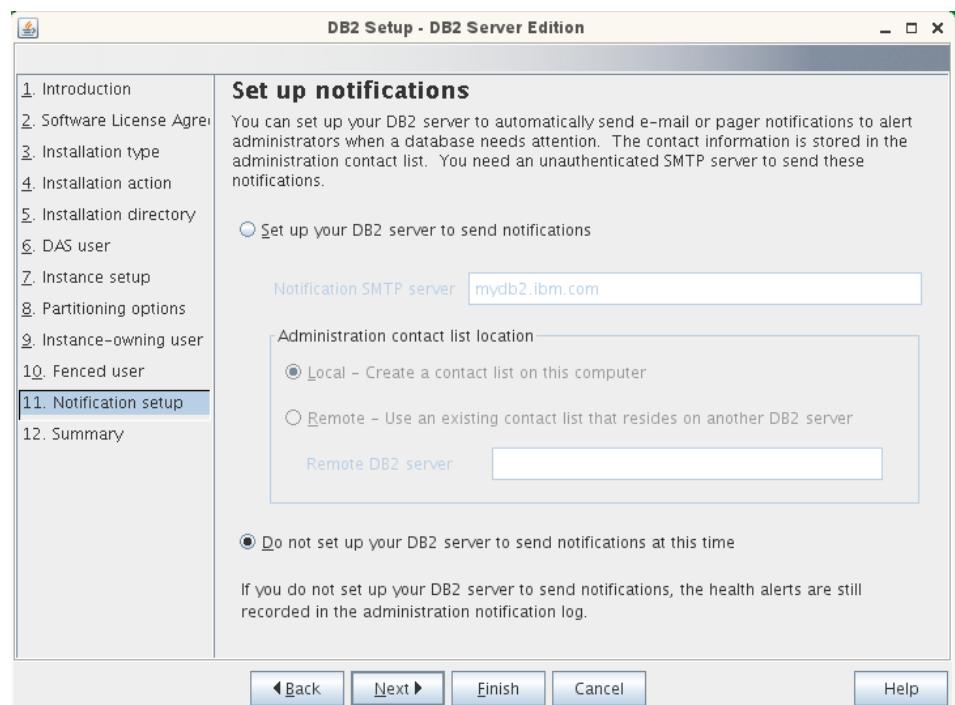
22. Select either New User or Existing user. Fill in the information required for the selection. In the example, “New user” was selected as default and the Password was filled in.

23. Click Next



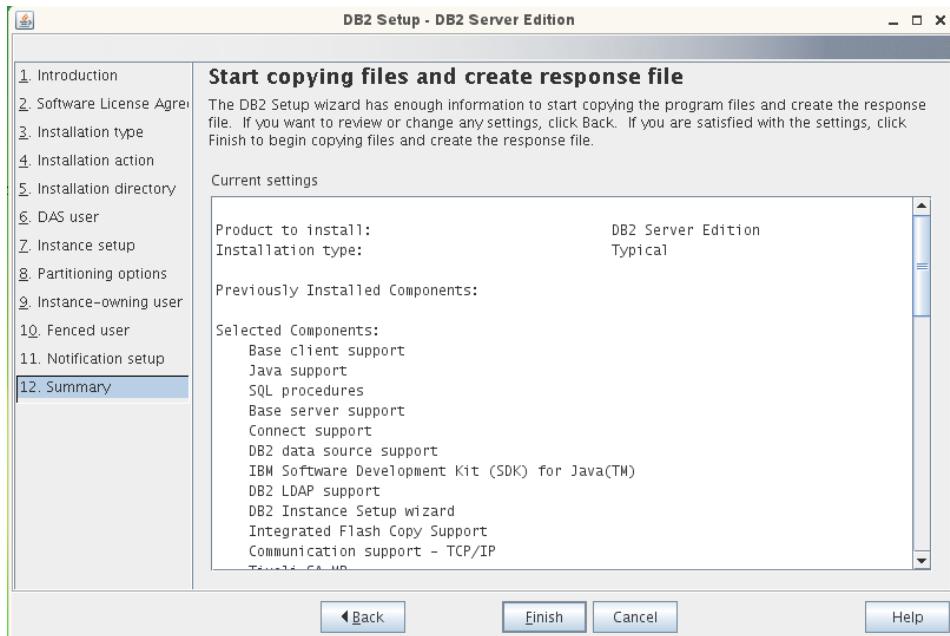
24. Select either “New User” or “Exisiting user”. Fill in the information required for the selection. In the example, “New user” was selected as default and the Password was filled in.

25. Click Next

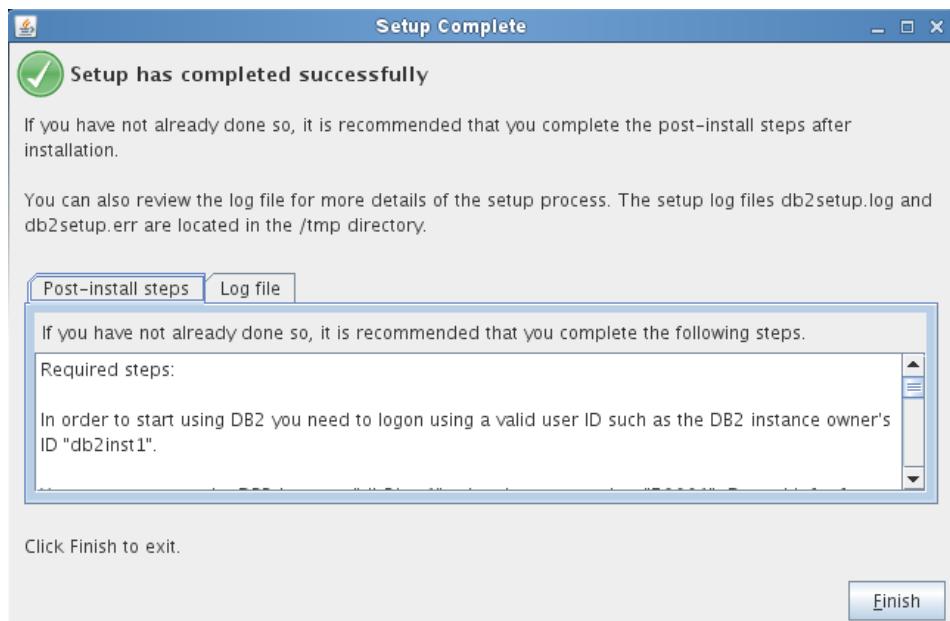


26. Select the type of notifications. In the example, “Do no set up your DB2 server to send notification at this time”.

27. Click Next



28. Click Finish



29. Click Finish

## 4.2 Create DB2 Database

1. Login to the DB2 Server file system as the DB2 Instance administrator.
2. Start either the DB2 Command Line Processor or DB2 Command Window
3. Run the following command to create the database for the IBM Forms Experience Builder

- o DB2 Command Line Processor

```
db2 => create DB <FEB_DB> using codeset UTF-8 territory us  
PAGESIZE 32768
```

Example:

```
db2 => create DB FEBDB using codeset UTF-8 territory us PAGESIZE  
32768
```

- o DB2 Command Window

```
# db2 create DB <FEB_DB> using codeset UTF-8 territory us  
PAGESIZE 32768
```

Example:

```
# db2 create DB FEBDB using codeset UTF-8 territory us PAGESIZE  
32768
```

4. Run the following command to connect to the database

- o DB2 Command Line Processor

```
db2 => connect to <FEB_DB>
```

Example:

```
db2 => connect to FEBDB
```

- o DB2 Command Window

```
# db2 connect to <FEB_DB>
```

Example:

```
# db2 connect to FEBDB
```

5. Run the following command to create the Buffer pool

- o DB2 Command Line Processor

```
db2 => CREATE BUFFERPOOL <BUFFERPOOL_NAME> IMMEDIATE SIZE 250  
PAGESIZE 32K
```

Example:

```
db2 => CREATE BUFFERPOOL FEBBP IMMEDIATE SIZE 250 PAGESIZE 32K
```

- o DB2 Command Window

```
# db2 CREATE BUFFERPOOL <BUFFERPOOL_NAME> IMMEDIATE SIZE 250  
PAGESIZE 32K
```

Example:

```
# db2 CREATE BUFFERPOOL FEBBP IMMEDIATE SIZE 250 PAGESIZE 32K
```

6. Run the following command to create the user temporary tablespace

- o DB2 Command Line Processor

```
db2 => CREATE USER TEMPORARY TABLESPACE <TABLESPACE_NAME>  
PAGESIZE 32K MANAGED BY AUTOMATIC STORAGE EXTENTSIZE 16  
PREFETCHSIZE 16 BUFFERPOOL <BUFFERPOOL_NAME>
```

Example:

```
db2 => CREATE USER TEMPORARY TABLESPACE LARGE_USERTEMP PAGESIZE  
32K MANAGED BY AUTOMATIC STORAGE EXTENTSIZE 16 PREFETCHSIZE 16  
BUFFERPOOL FEBBP
```

- o DB2 Command Window

```
# db2 CREATE USER TEMPORARY TABLESPACE <TABLESPACE_NAME> PAGESIZE  
32K MANAGED BY AUTOMATIC STORAGE EXTENTSIZE 16 PREFETCHSIZE 16  
BUFFERPOOL <BUFFERPOOL_NAME>
```

Example:

```
# db2 CREATE USER TEMPORARY TABLESPACE LARGE_USERTEMP PAGESIZE  
32K MANAGED BY AUTOMATIC STORAGE EXTENTSIZE 16 PREFETCHSIZE 16  
BUFFERPOOL FEBBP
```

### 4.3 User Permission

The DB2 user that will be used for IBM Forms Experience Builder requires specific permissions. If the user does not have dbadmin access then use the following steps below to configure the user with the right permissions.

1. Create a DB2 user used to connect to the DB2 server (db2form). Use the Operating System manual for instructions on how to create a user.
2. Login to the DB2 Server file system as the database instance owner.

Example:

WIN	db2admin
UNIX	db2inst1

3. Start the DB2 Command Line Processor or DB2 Command window
4. Run the following command to connect to the database

- o DB2 Command Line Processor

```
db2=> CONNECT TO <FEB_DB>
```

**Example:**

```
db2=> CONNECT TO FEBDB
```

o DB2 Command Window

```
# db2 CONNECT TO <FEB_DB>
```

**Example:**

```
# db2 CONNECT TO FEBDB
```

5. Run the following command to grant the following permission to the db2 user

o DB2 Command Line Processor

```
db2=> GRANT CONNECT, CREATETAB, IMPLICIT_SCHEMA, DATAACCESS ON  
DATABASE TO <DB2_FORM_USER>
```

**Example:**

```
db2=> GRANT CONNECT, CREATETAB, IMPLICIT_SCHEMA, DATAACCESS ON  
DATABASE TO db2form
```

o DB2 Command Window

```
# db2 GRANT CONNECT, CREATETAB, IMPLICIT_SCHEMA, DATAACCESS ON  
DATABASE TO <DB2_FORM_USER>
```

**Example:**

```
# db2 GRANT CONNECT, CREATETAB, IMPLICIT_SCHEMA, DATAACCESS ON  
DATABASE TO db2form
```

6. Run the following command to grant permission to the tablespace

o DB2 Command Line Processor

```
db2=> GRANT USE OF TABLESPACE <TABLESPACE_NAME> TO  
<DB2_FORM_USER>
```

**Example:**

```
db2=> GRANT USE OF TABLESPACE LARGE_USERTEMP TO db2form
```

o DB2 Command Window

```
# db2 GRANT USE OF TABLESPACE <TABLESPACE_NAME> TO  
<DB2_FORM_USER>
```

**Example:**

```
# db2 GRANT USE OF TABLESPACE LARGE_USERTEMP TO db2form
```

7. Run the following command to reset the connection

o DB2 Command Line Processor

```
db2=> CONNECT RESET
```

o DB2 Command Window

```
# db2 CONNECT RESET
```

## **4.4 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:

```
<DB2_HOME>/java/db2jcc4.jar  
<DB2_HOME>/java/db2jcc_license_cu.jar
```

To:

```
<JDBC_DRIVER>/db2jcc4.jar  
<JDBC_DRIVER>/db2jcc_license_cu.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 section 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 section can be skipped as long as the version is supported by the IBM Forms Experience Builder. Only one installation method is required.

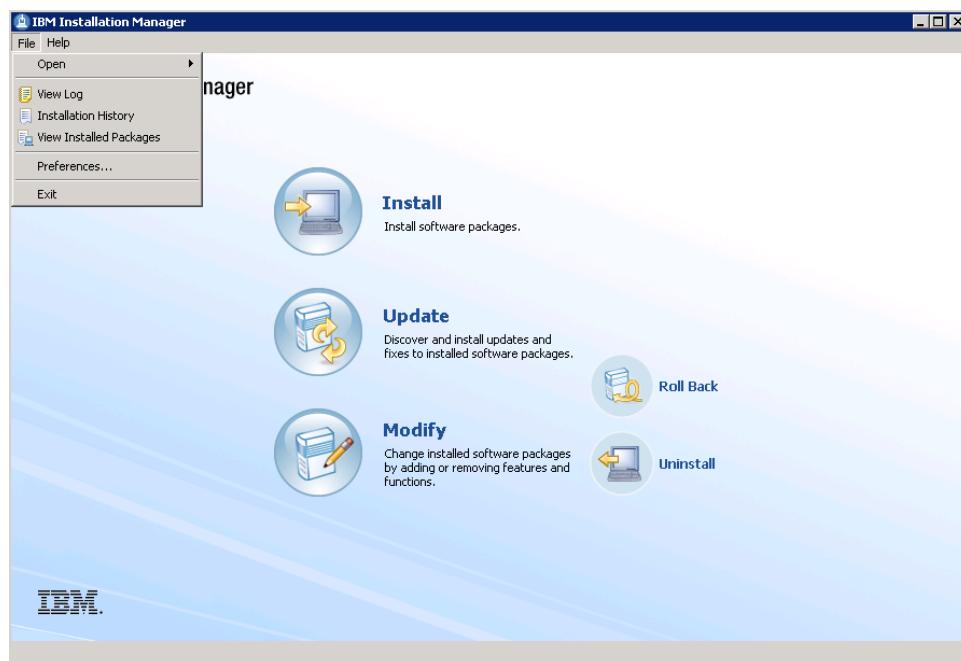
### 7.1.1 Graphical User Interface

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.

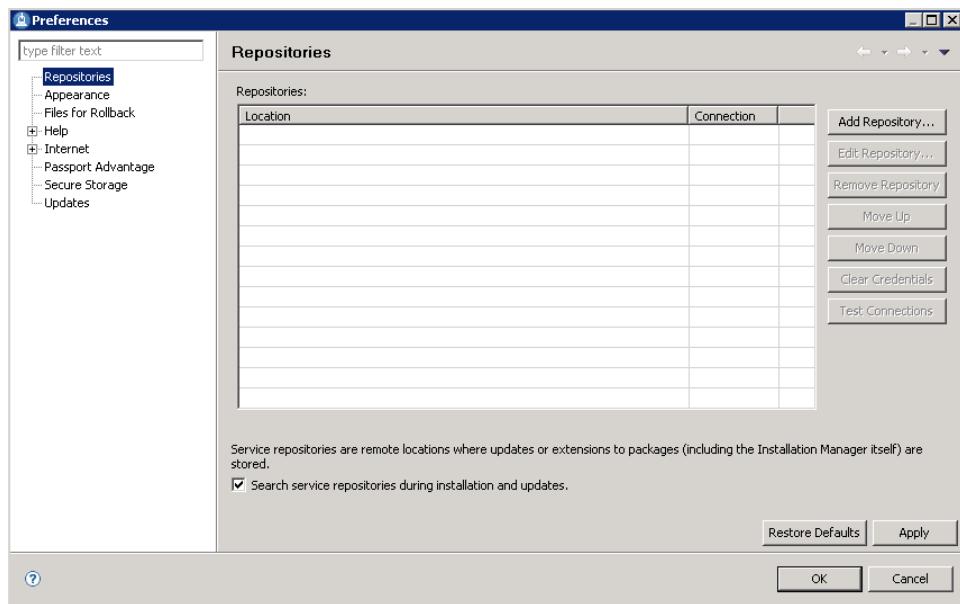
1. Login to the IBM Forms Experience Builder file system as an administrator/root
2. Run the **IBMIM** command to start the IBM Installation Manager

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...

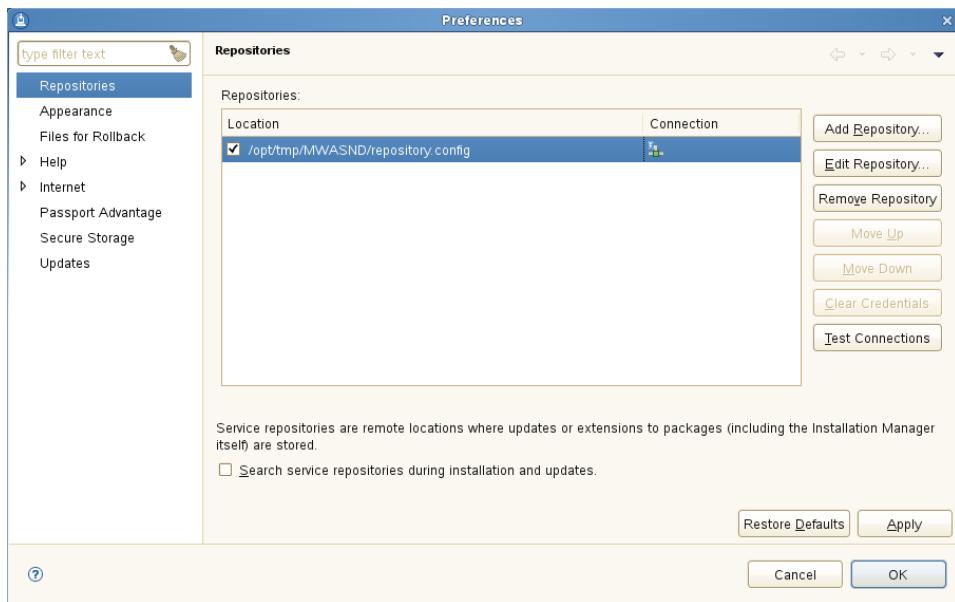


6. Browse-to/Enter the repository.config in the WebSphere Application Server media

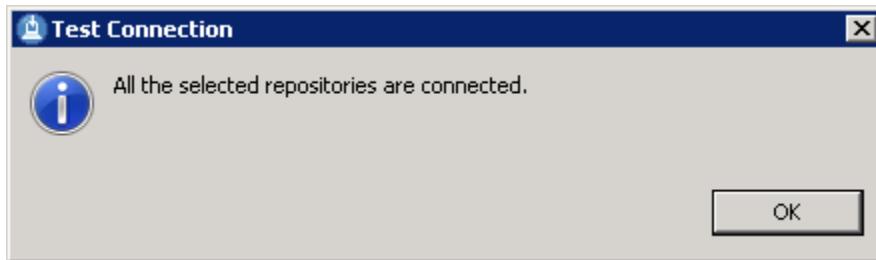
**Example:**

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

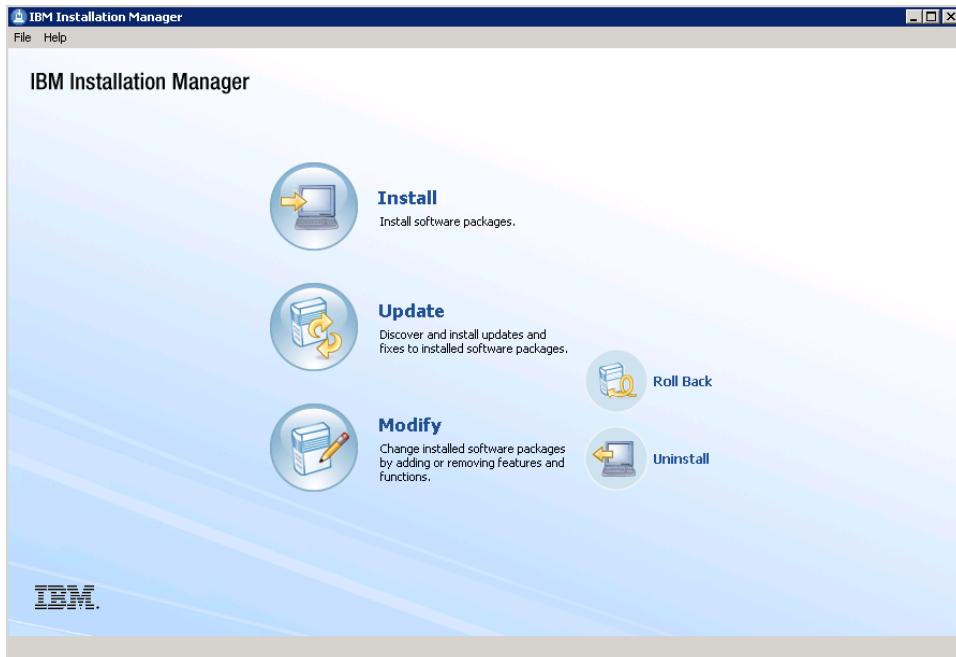
7. Click OK



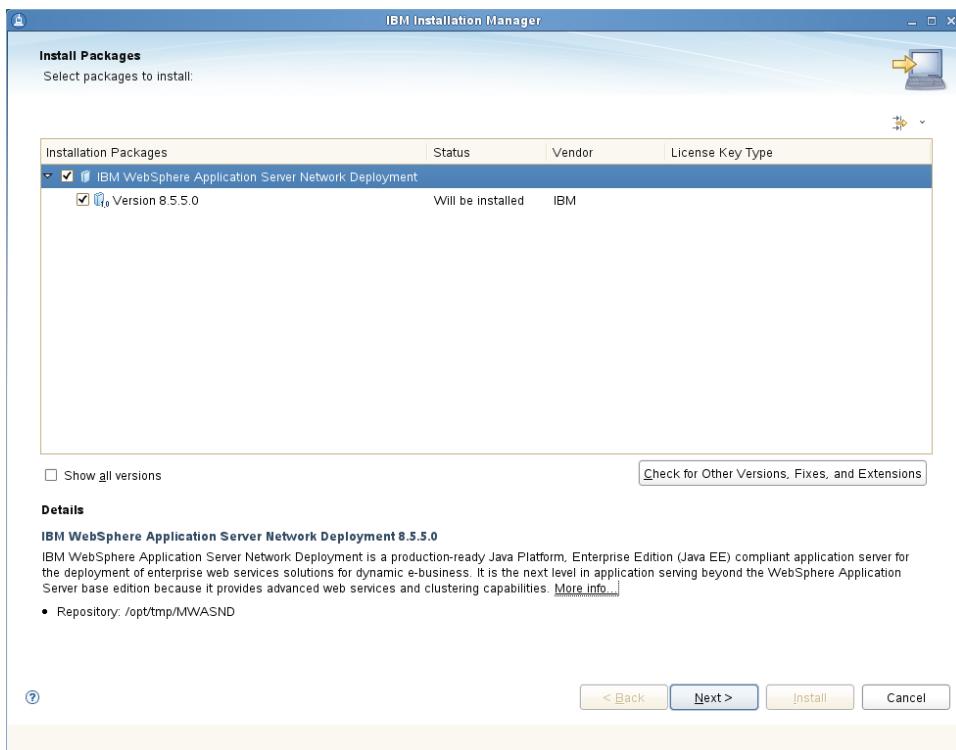
8. Click Test Connections



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

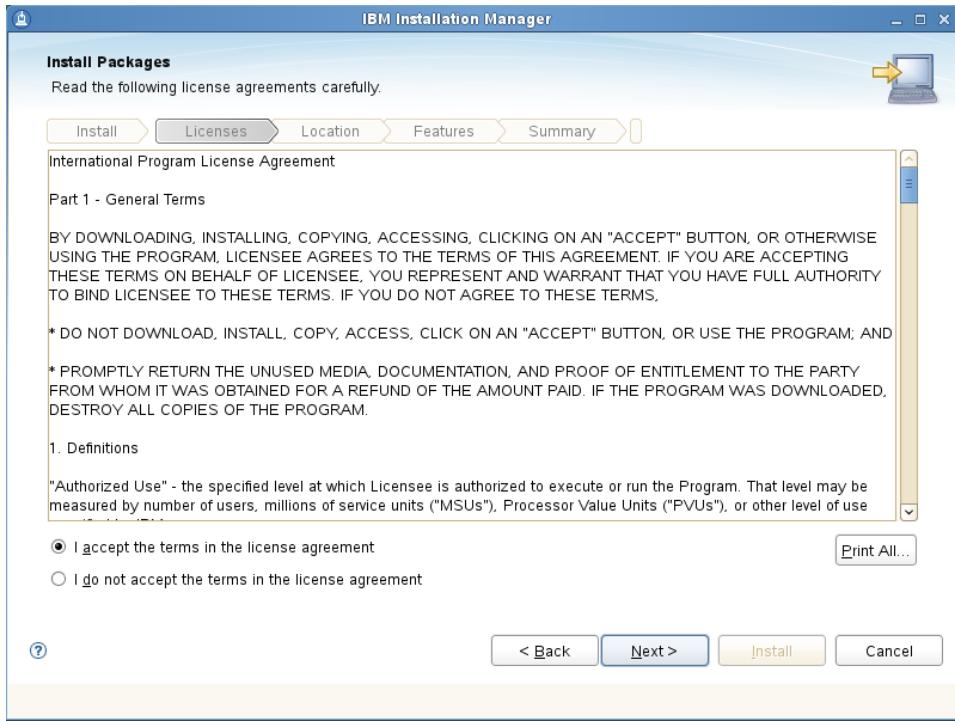


### 13. Click Install



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

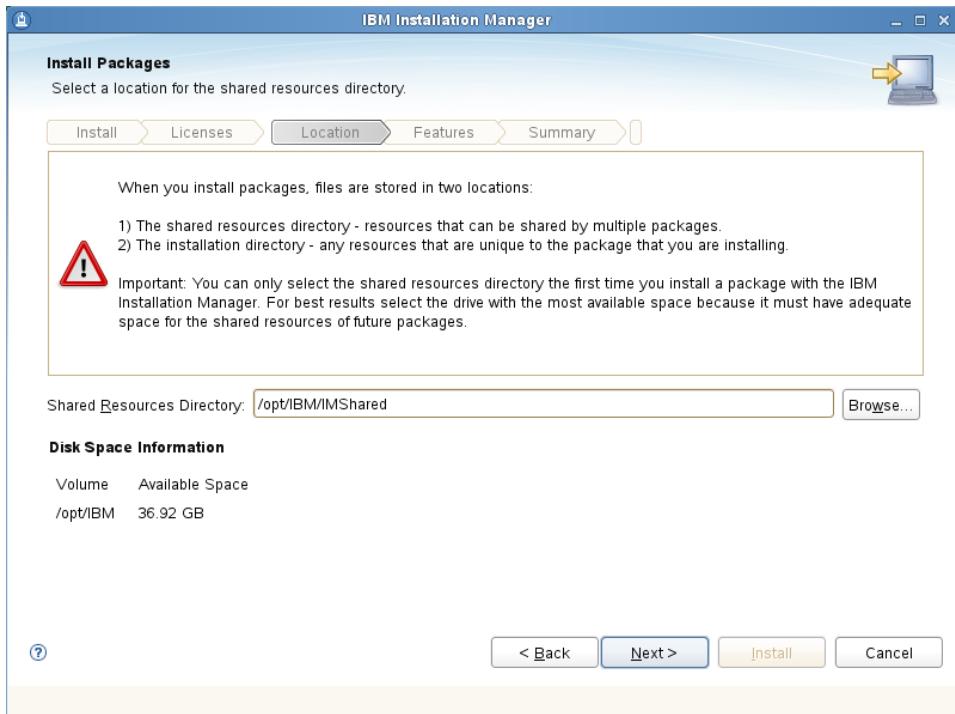
### 15. Click Next



16. Review the International Program License Agreement

17. Select “I accept the terms in the license agreement”

18. Click Next



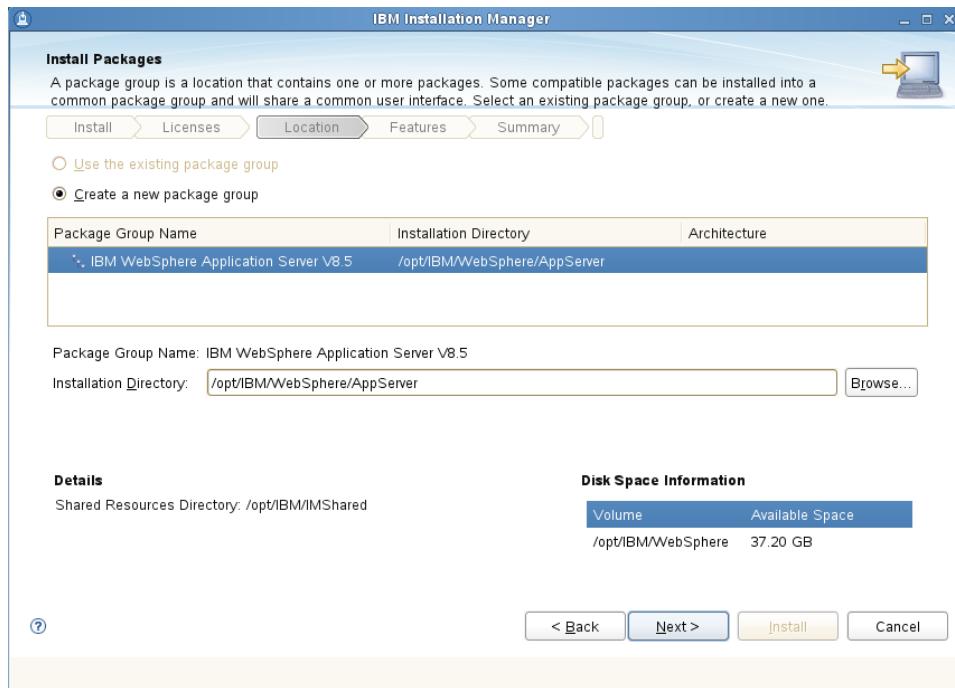
19. Browse-to/Enter the location of the Shared resource directory

**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**

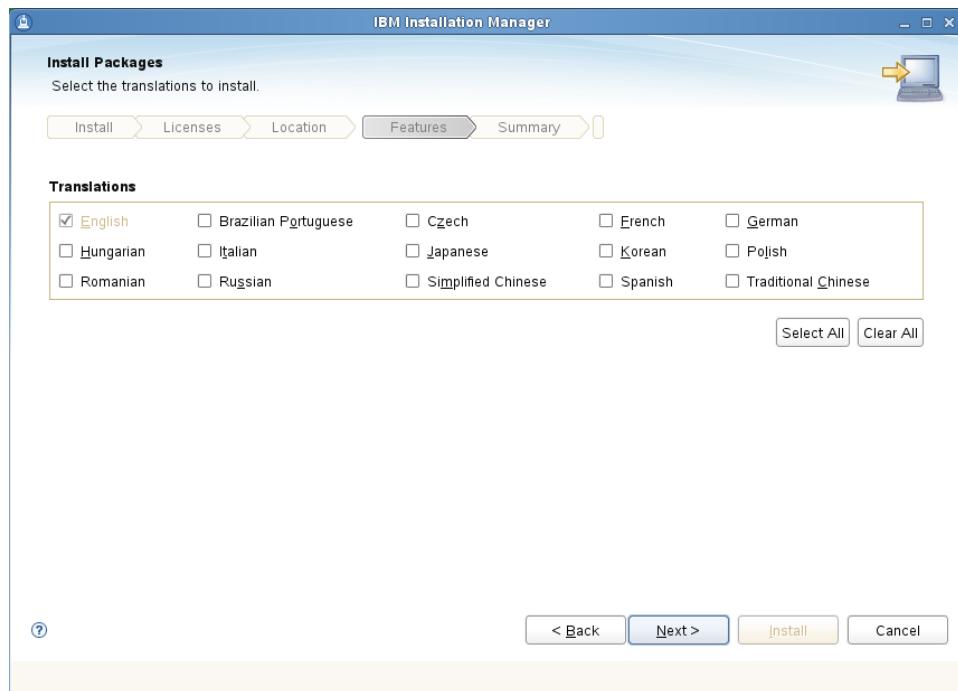
**22. Verify/Update the Installation Directory**

**WAS\_HOME** = \_\_\_\_\_

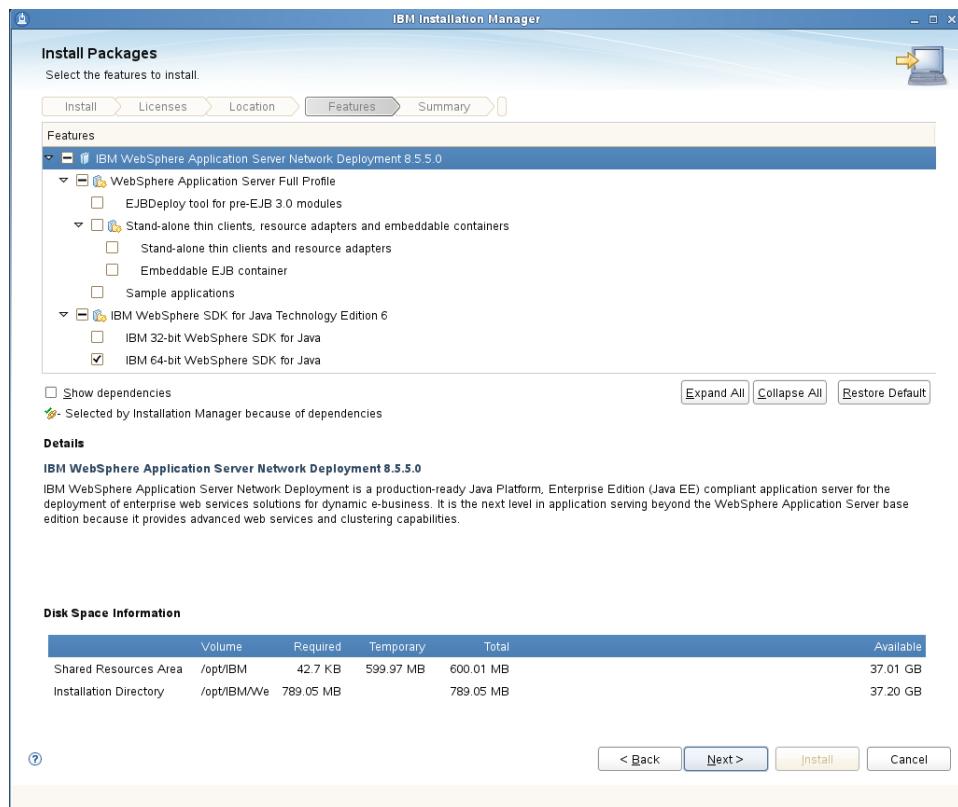
**Example:**

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

**23. Click Next**



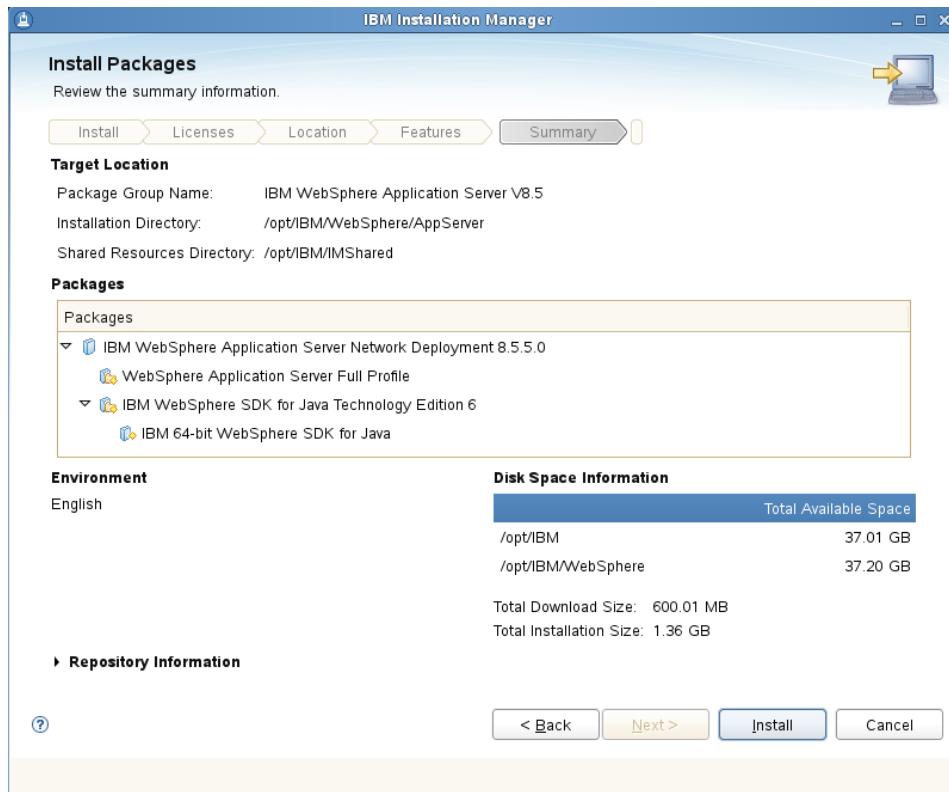
#### 24. Click Next



#### 25. Verify "WebSphere Application Server Full Profile" is selected. The other features under "WebSphere Application Server Full Profile" is optional.

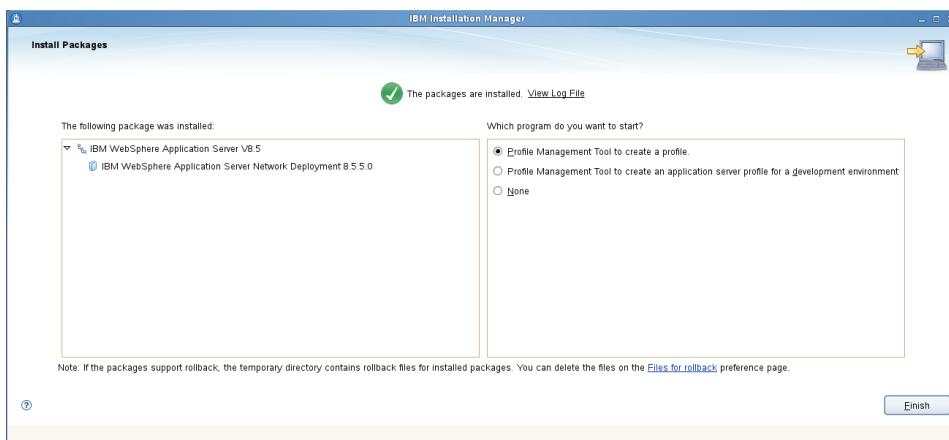
26. Verify the SDK for your specific platform bit installation is selected. In the example, “IBM 64-bit WebSphere SDK for Java” was selected.
- On a 32-bit, select “IBM 32-bit WebSphere SDK for Java
  - On a 64-bit, select “IBM 64-bit WebSphere SDK for Java

27. Click Next

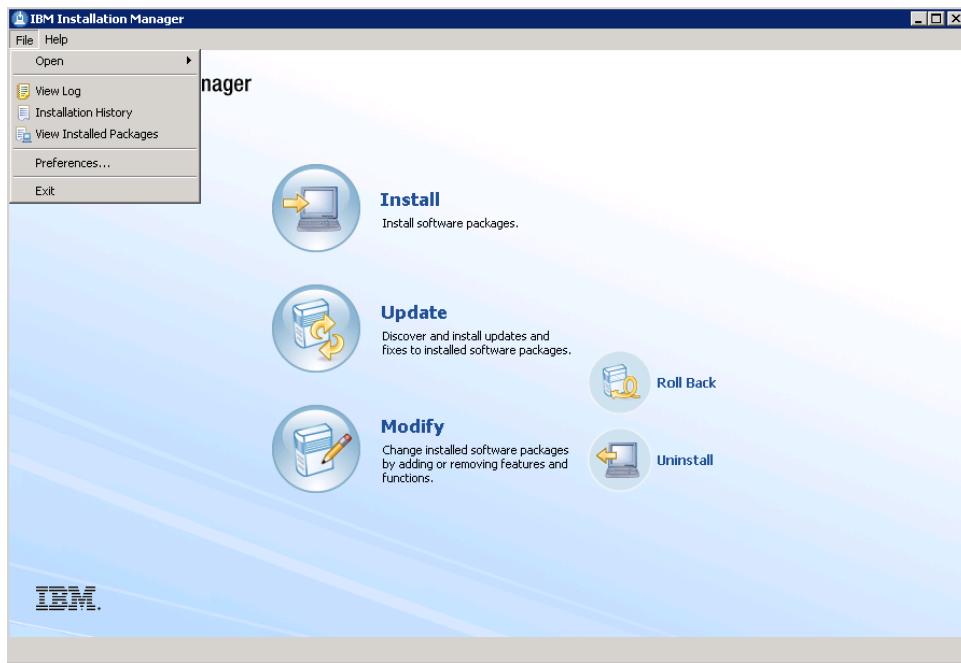


28. Review the summary information

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
```

**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.



**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 Deployment Manager – Create Profile**

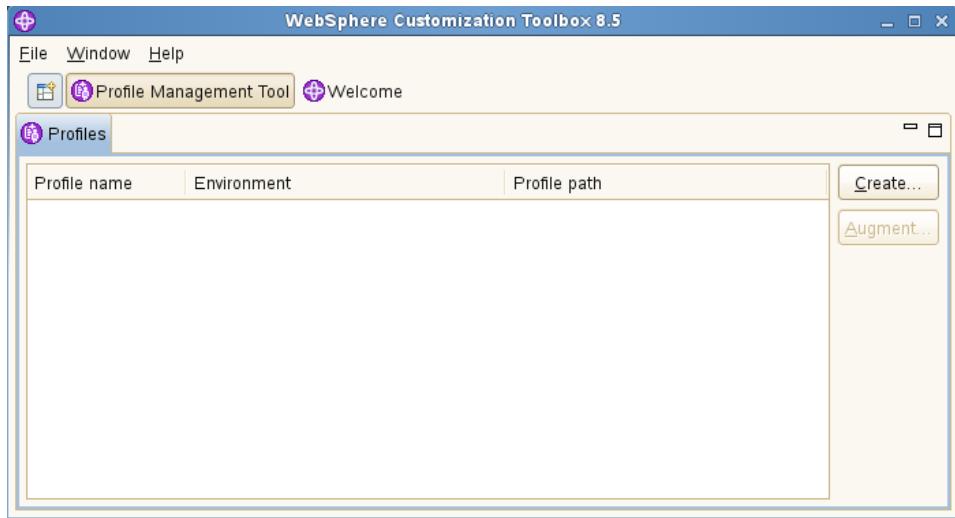
Only one method needs to be followed to create the Deployment Manager profile. Either user the Graphical User Interface or the Command line to create the profile.

### **7.2.1 GUI**

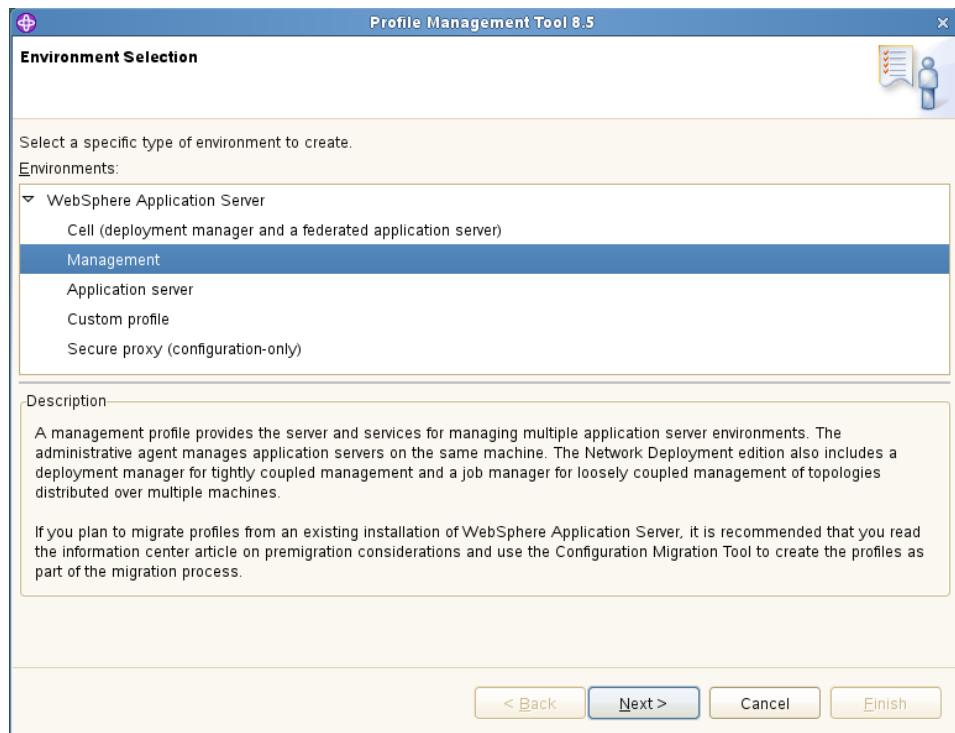
1. Start the Profile Manager Tool from the following options
  - o Select “Profile Management Tool to create a profile” after the installation of WebSphere Application Server when using a GUI
  - o Run **pmt** from the file system
    - WIN      <WAS\_HOME>\bin\ProfileManagement\pmt.bat
    - UNIX      <dsWAS\_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

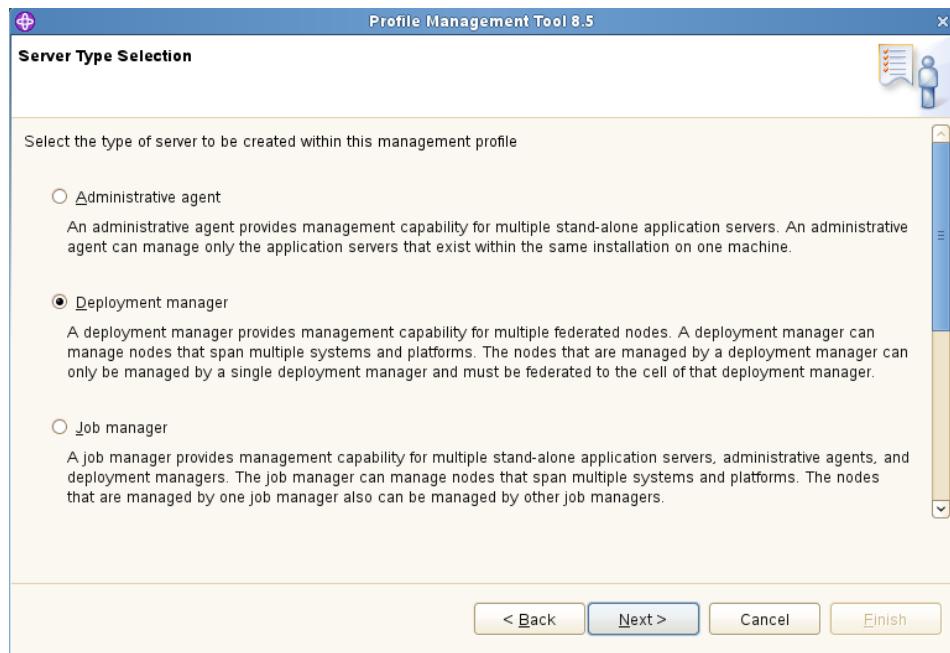


**2. Click Create**

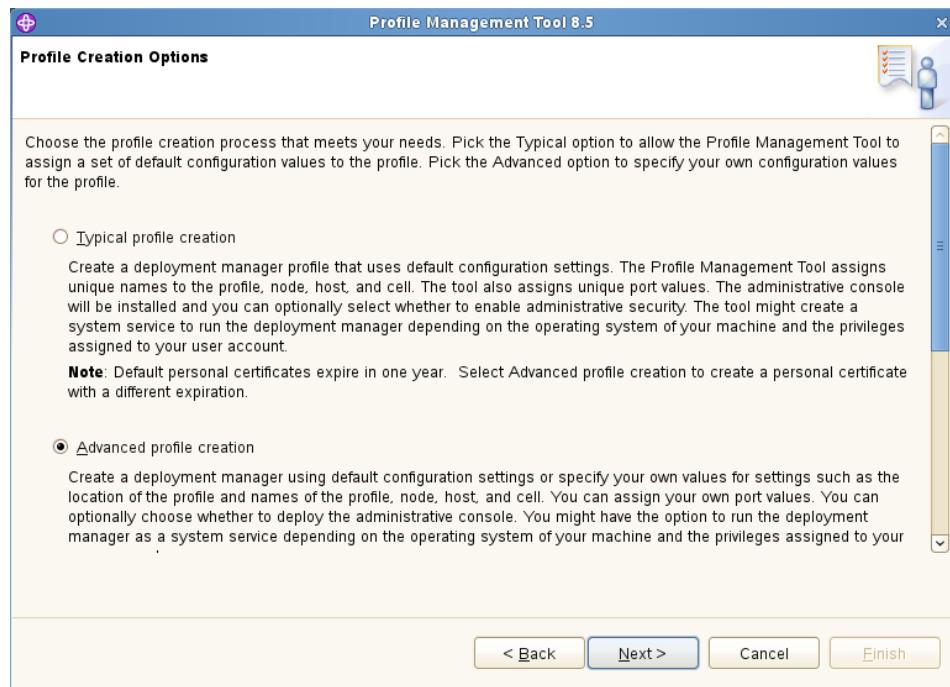


**3. Select Management**

**4. Click Next**

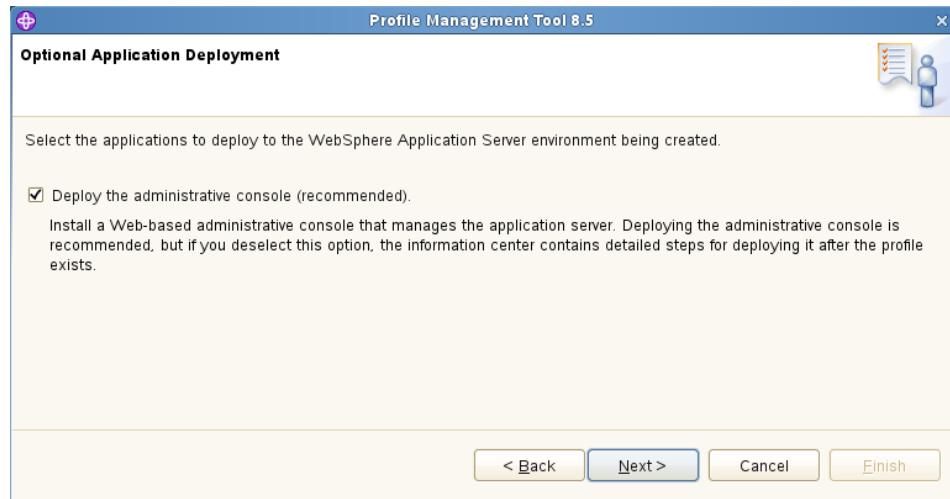


5. Select “Deployment manager”
6. Click Next



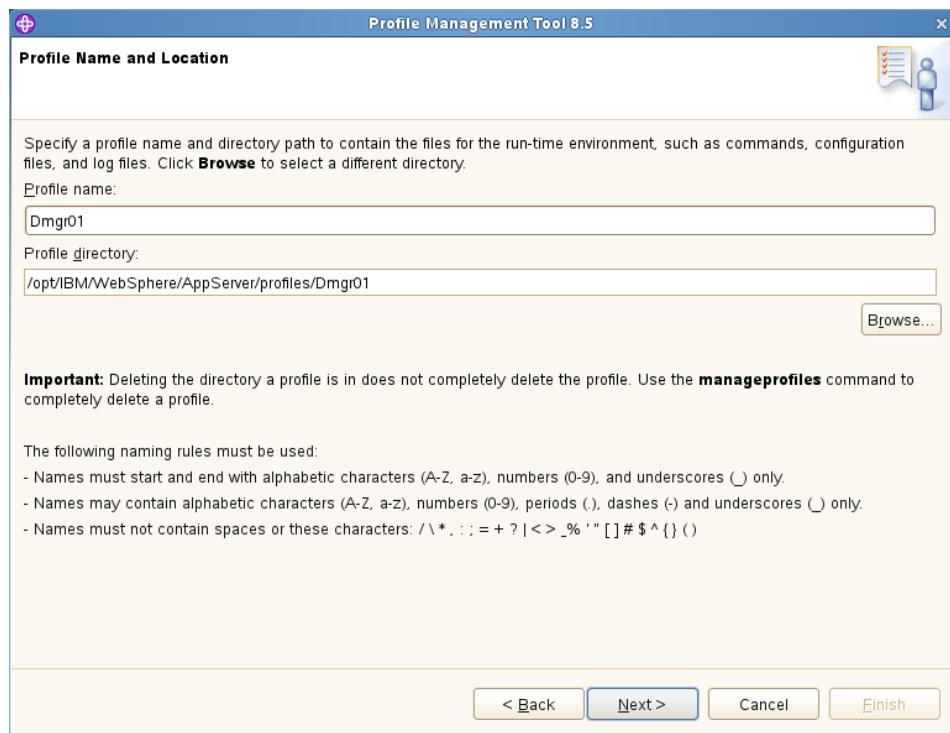
7. Select the profile creation option. By default “Typical profile creation” is selected and can be used depending on the requirements. In the example, “Advanced profile creation” is selected to show the different available options during profile creation

8. Click Next



9. Verify "Deploy the administrative console" is checked.

10. Click Next



11. Fill in the following information

Profile name = \_\_\_\_\_

Profile directory = \_\_\_\_\_

### Example: WINDOWS

```
Profile name = Dmgr01  
Profile directory = E:\IBM\WebSphere\AppServer\profiles\DMgr01
```

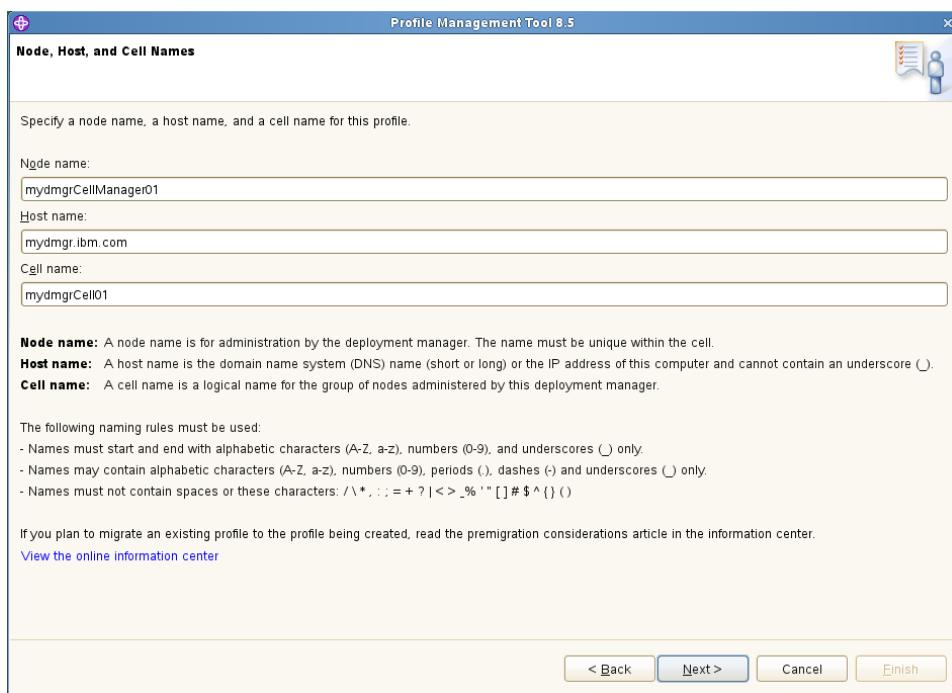
### Example: LINUX

```
Profile name = Dmgr01  
Profile directory = /opt/IBM/WebSphere/AppServer/profiles/Dmgr01
```

### Example: AIX

```
Profile name = Dmgr01  
Profile directory = /usr/IBM/WebSphere/AppServer/profiles/Dmgr01
```

## 12. Click Next



## 13. Verify/Enter the following information.

Node name = \_\_\_\_\_

Host name = \_\_\_\_\_

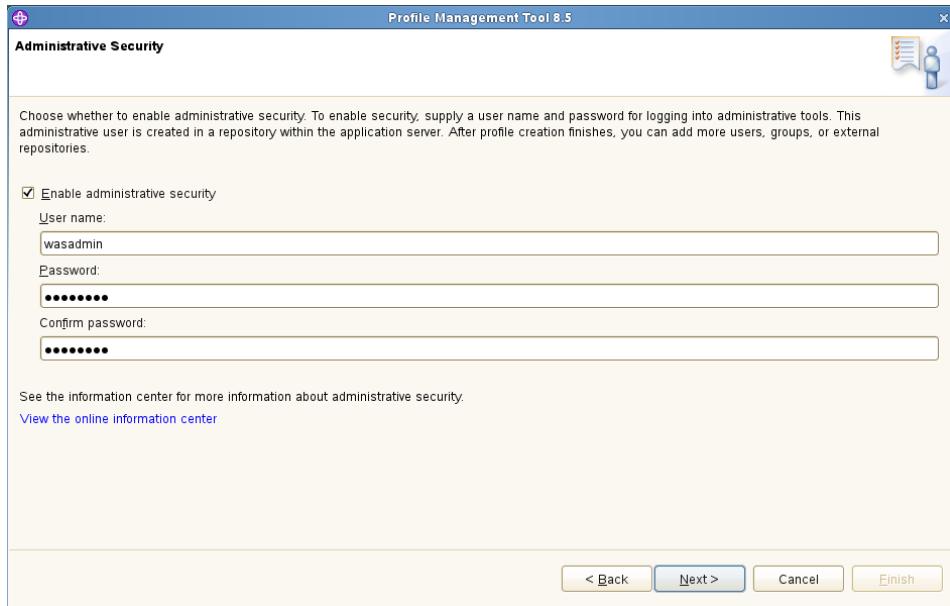
Cell name = \_\_\_\_\_

### Example:

```
Node name = mydmgrCellManager01  
Host name = mydmgr.ibm.com  
Cell name = mydmgrCell01
```

Note: By default, the Node name and Cell name consist of the hostname at the beginning of the value such as in the example. These variables can be set to anything. It is suggested to make them as short as possible.

14. Click Next



15. IBM Forms Experience Builder requires the 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 by default and a file base user repository will be created and configured to the WebSphere Application Server profile.

16. 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.

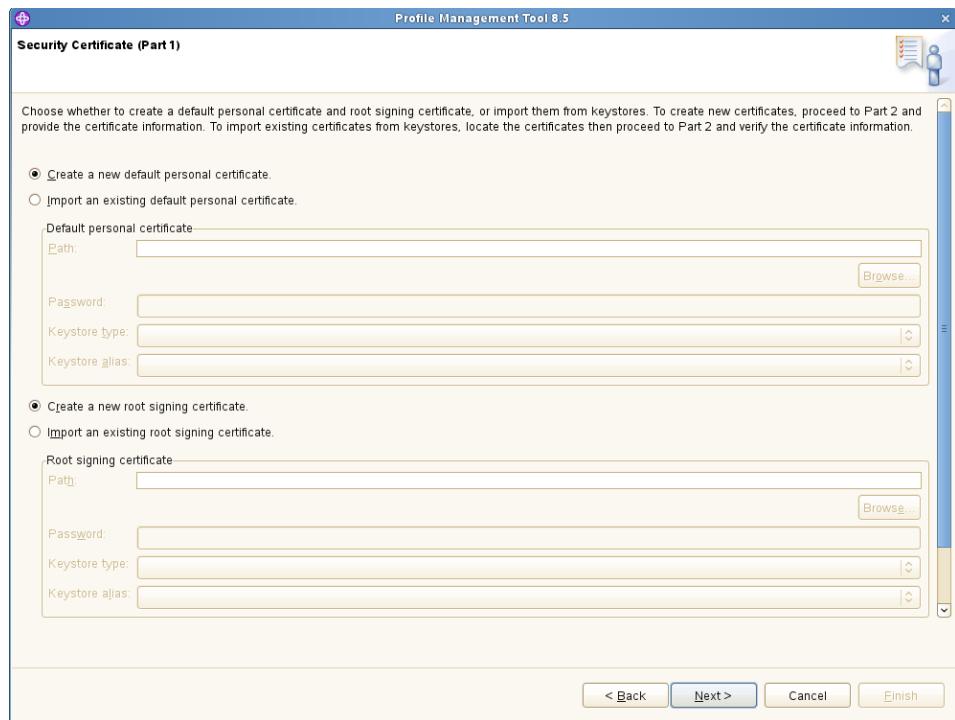
User name: \_\_\_\_\_

Example: **wasadmin**

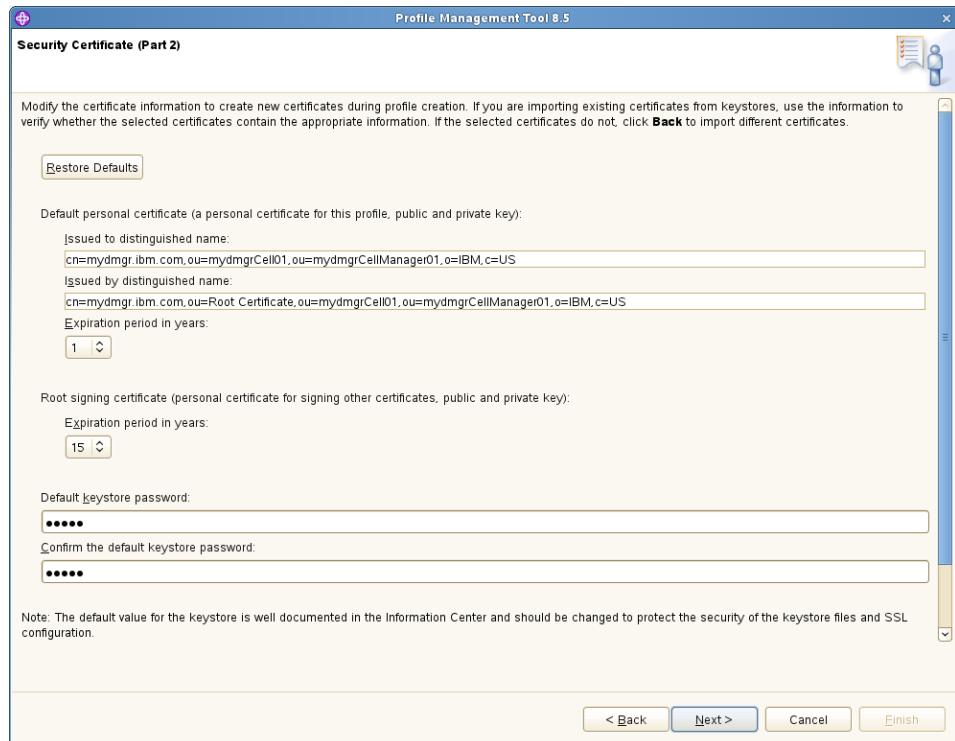
17. If “Enable administrative security” was checked, enter the password for the User name in the “Password” and “Confirm password” field.

Password: \_\_\_\_\_

18. Click Next

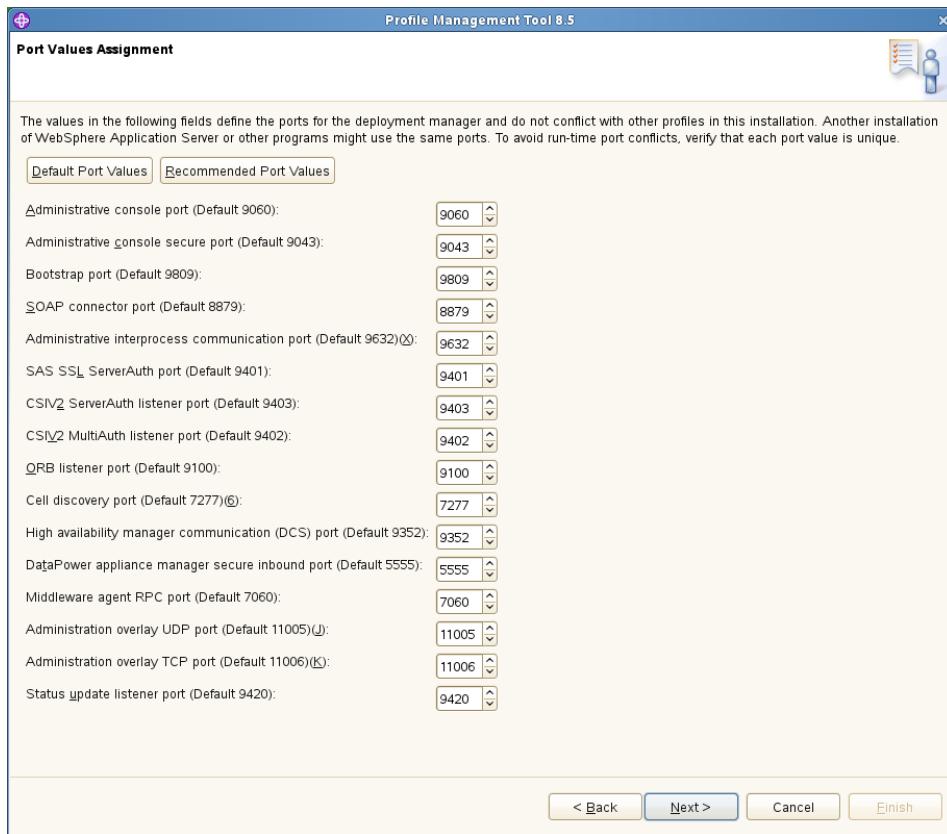


19. Signing certificates can be imported for the profile if this is a requirement. Otherwise, Click Next

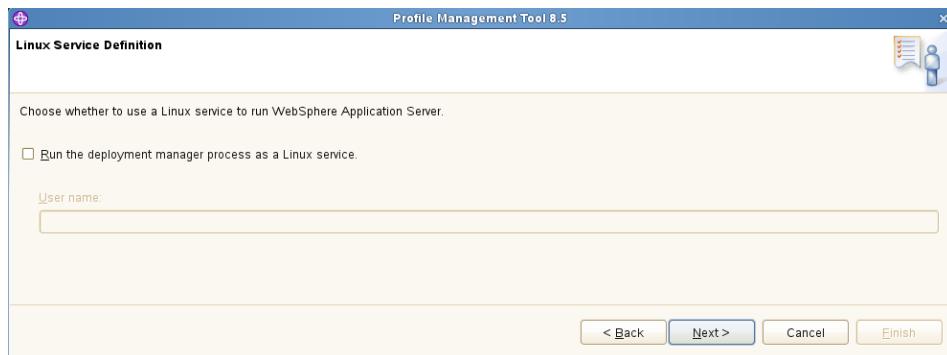


20. The certificate information can be updated at this time if required.

21. The Default personal certificate “Experation period in years” can be updated at this time.
22. The Root signing certificate “Expiration period in years” can be updated at this time.
23. Click Next



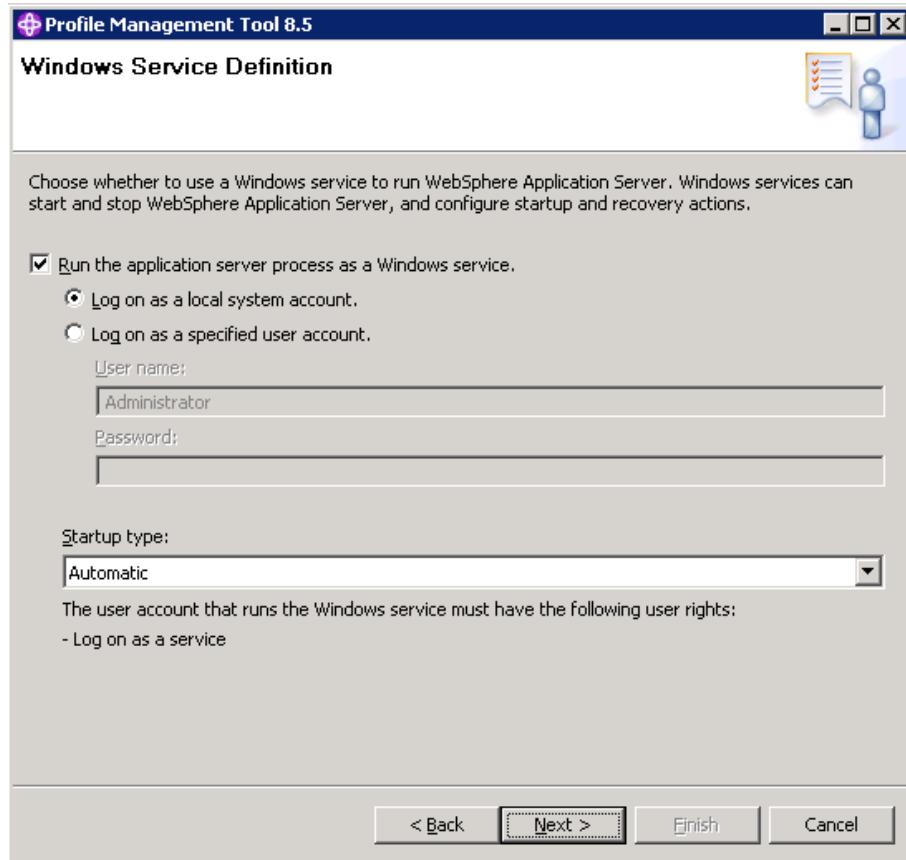
24. If there are any requirements for ports, the ports can be updated at this time.
25. Click Next



26. If installing on Linux, by default the “Run the application server process as a Linux service” is unchecked. The options must be unchecked if it meets the following...

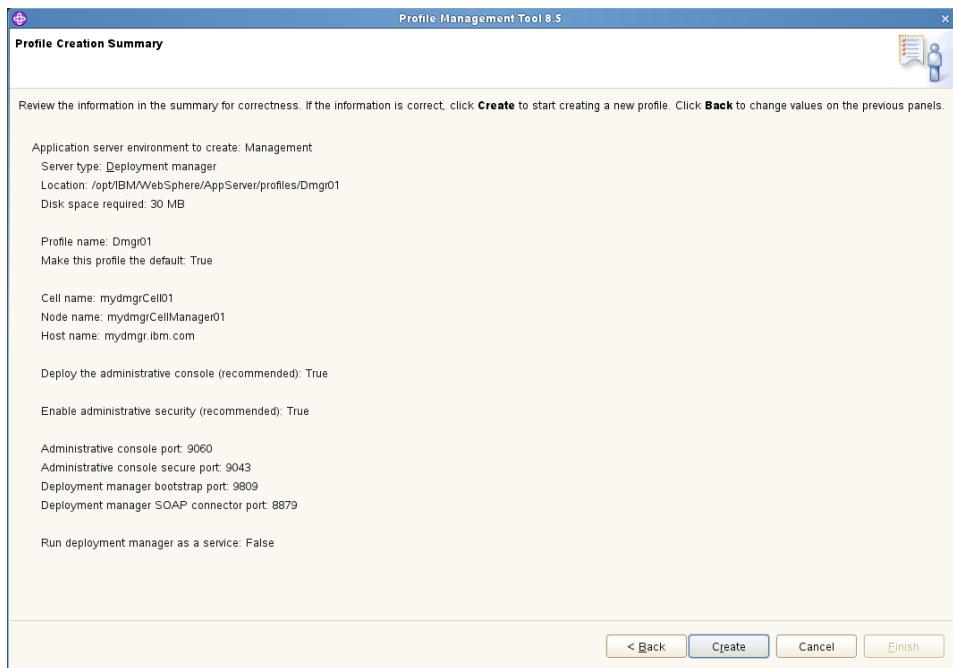
- If security is not enabled on the profile.
- If the WebSphere Application Server administrator user or password will be changed.

27. Click Next

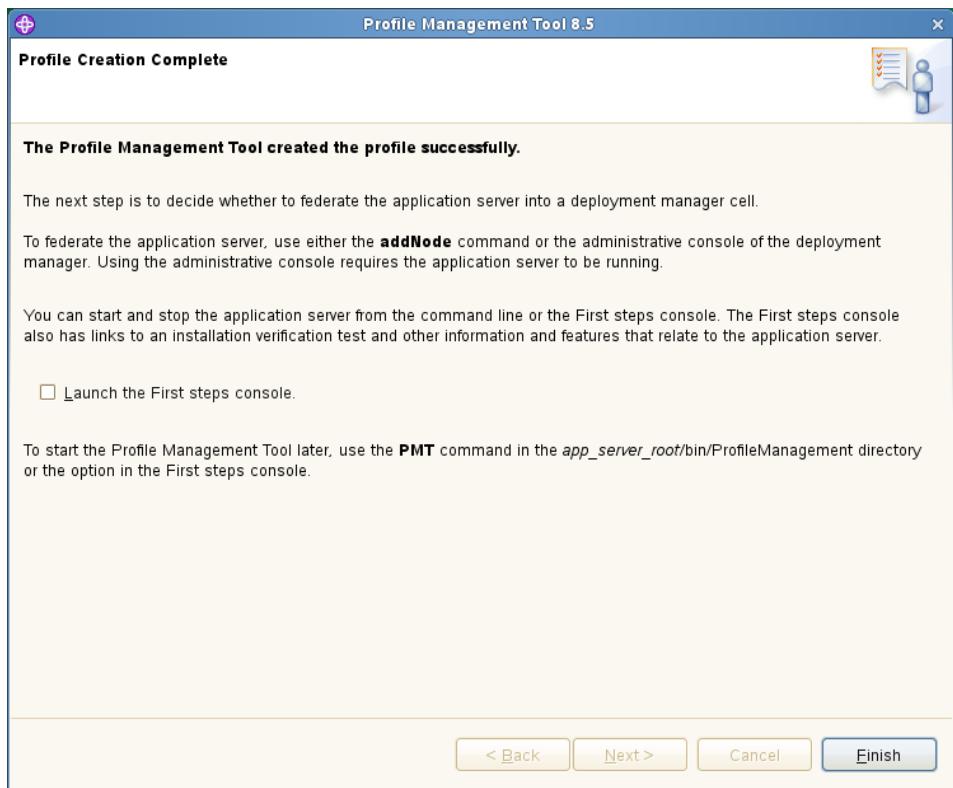


28. If installing on Windows, by default the “Run the application server process as a Windows service” is checked. Leaving it checked will start the WebSphere Application Server server after a restart of the operating system. Uncheck “ Run the application server process as a Window servcice” if any of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

29. Click Next

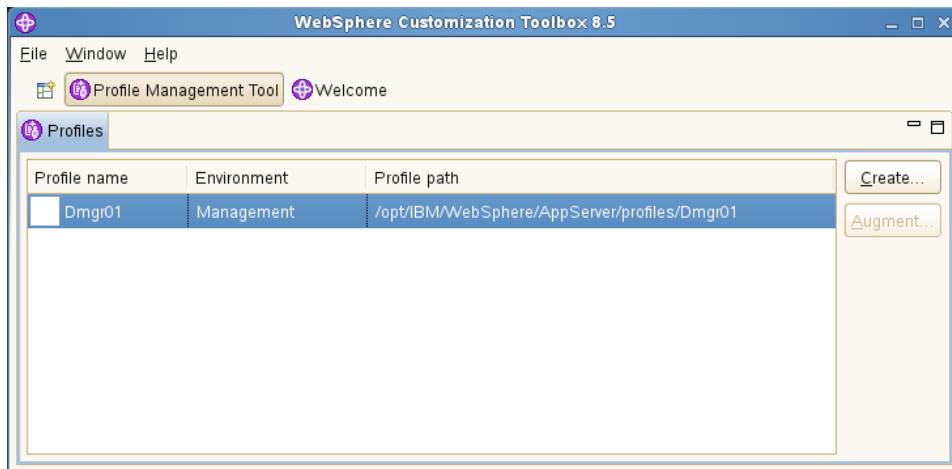


30. Review the Summary information. If anything is incorrect, click back and fix the problem.
31. If everything is correct, click Create



32. 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.

33. Click Finish



## 7.2.2 Command Line

1. Login to the Deployment Manager server
2. Run the following command to create a Deployment Manager Profile

```
<WAS_HOME>/bin/manageprofiles.(bat/sh) -create -templatePath  
<WAS_HOME>/profileTemplates/management -profileName <PROFILE_NAME> -  
profilePath <PROFILE_PATH> -hostName <DMGR_HOSTNAME> -cellName  
<DMGR_CELLNAME> -nodeName <DMGR_NODENAME>
```

NOTE: Options to enable security

```
-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 installation of 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\management -profileName  
Dmgr01 -profilePath E:\IBM\WebSphere\AppServer\profiles\DMgr01 -  
hostName mydmgr.ibm.com -cellName mydmgrCell01 -nodeName  
mydmgrCellManager01 -enableAdminSecurity true -adminUserName wasadmin -  
adminPassword XXXX
```

#### Example: LINUX

```
/opt/IBM/WebSphere/AppServer/bin/manageprofiles.sh -create -  
templatePath /opt/IBM/WebSphere/AppServer/profileTemplates/management -  
profileName Dmgr01 -profilePath  
/opt/IBM/WebSphere/AppServer/profiles/Dmgr01 -hostName mydmgr.ibm.com -  
cellName mydmgrCell01 -nodeName mydmgrCellManager01 -  
enableAdminSecurity true -adminUserName wasadmin -adminPassword XXXX
```

#### Example: AIX

```
/usr/IBM/WebSphere/AppServer/bin/manageprofiles.sh -create -  
templatePath /usr/IBM/WebSphere/AppServer/profileTemplates/management -  
profileName Dmgr01 -profilePath  
/usr/IBM/WebSphere/AppServer/profiles/Dmgr01 -hostName mydmgr.ibm.com -  
cellName mydmgrCell01 -nodeName mydmgrCellManager01 -  
enableAdminSecurity true -adminUserName wasadmin -adminPassword XXXX
```

### 3. Verify the results

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

#### Example: WINDOWS

```
INSTCONFSUCCESS: Success: Profile Dmgr01 now exists. Please consult  
E:\IBM\WebSphere\AppServer\profiles\DMGR01\logs\AboutThisProfile.txt  
for more information about this profile.
```

#### Example: LINUX

```
INSTCONFSUCCESS: Success: Profile Dmgr01 now exists. Please consult  
/opt/IBM/WebSphere/AppServer/profiles/DMGR01/logs/AboutThisProfile.txt  
for more information about this profile.
```

#### Example: AIX

```
INSTCONFSUCCESS: Success: Profile Dmgr01 now exists. Please consult  
/usr/IBM/WebSphere/AppServer/profiles/DMGR01/logs/AboutThisProfile.txt  
for more information about this profile.
```

## 7.3 FEB – Create Profile

Only one method needs to be followed to create the IBM Forms Experience Builder profile. Either user the Graphical User Interface or the Command line to create the profile.

### 7.3.1 GUI

#### 1. Verify/Start the Deployment Manager

```
<DMGR_PROFILE>/bin/startManager.(bat/sh)
```

Example:

```

WIN      E:\IBM\WebSphere\AppServer\profiles\dmgr01\bin\startManager.bat
LINUX    /opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/startManager.sh
AIX      /usr/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/startManager.sh

```

2. Login to the IBM Forms Experience Builder file system
3. Start the Profile Manager Tool

<WAS\_HOME>/bin/ProfileManagement/pmt.(bat/sh)

**Example:**

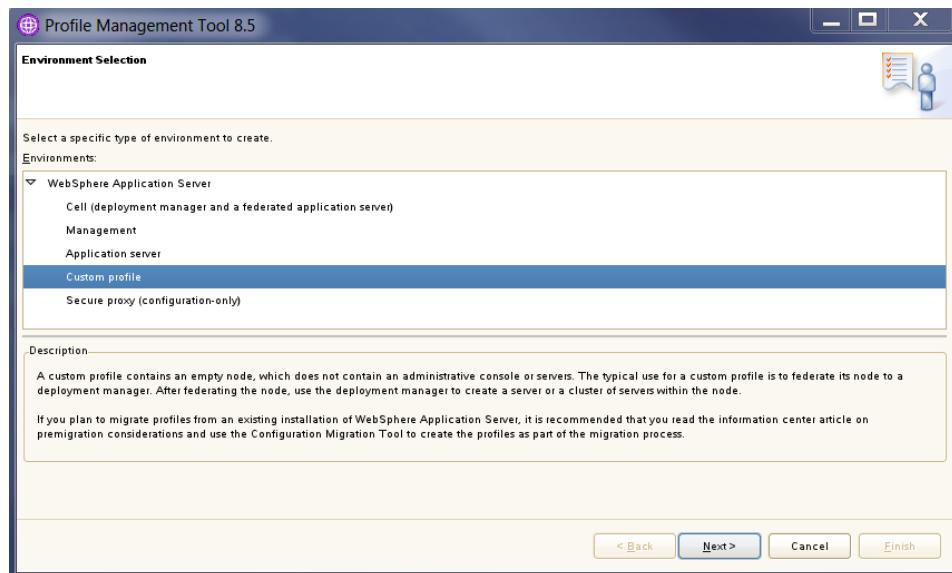
```

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

```

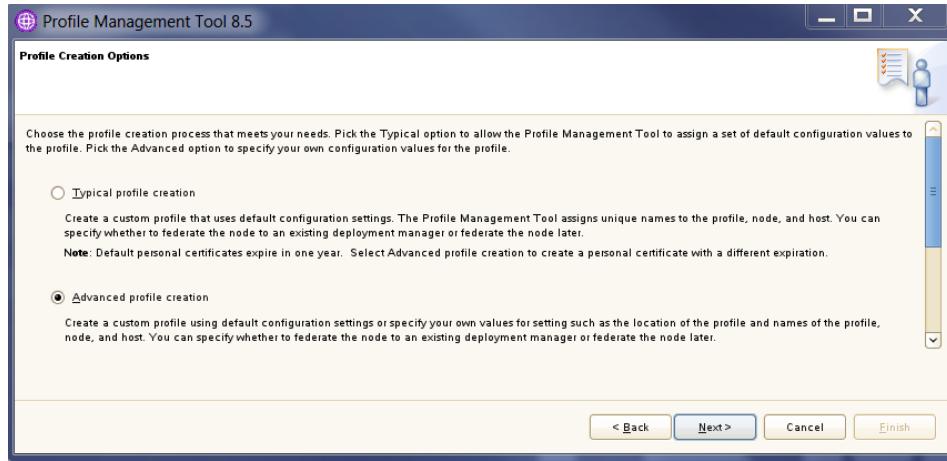


4. Click Create



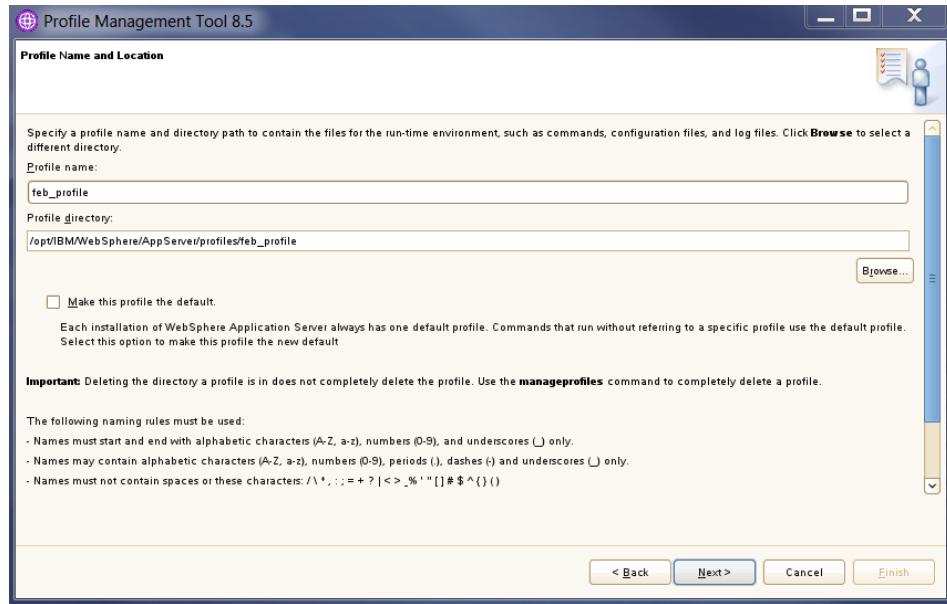
5. Select Custom profile

## 6. Click Next



7. Select the 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.

## 8. Click Next



9. Verify/Enter the Profile name.

Profile name: \_\_\_\_\_

Example: feb\_profile

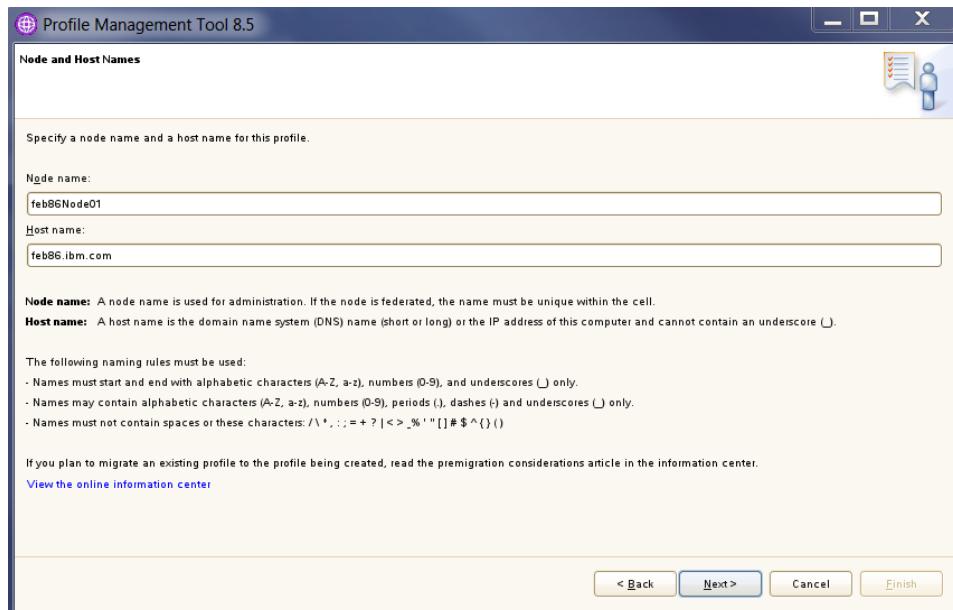
10. Verify/Enter the Profile directory. In the example, the Profile directory was updated as to match the profile name

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. In the example, the nodename was left as default. The default convention is hostname+Node01. The recommendation is to have the nodename as short as possible.

Node name: \_\_\_\_\_

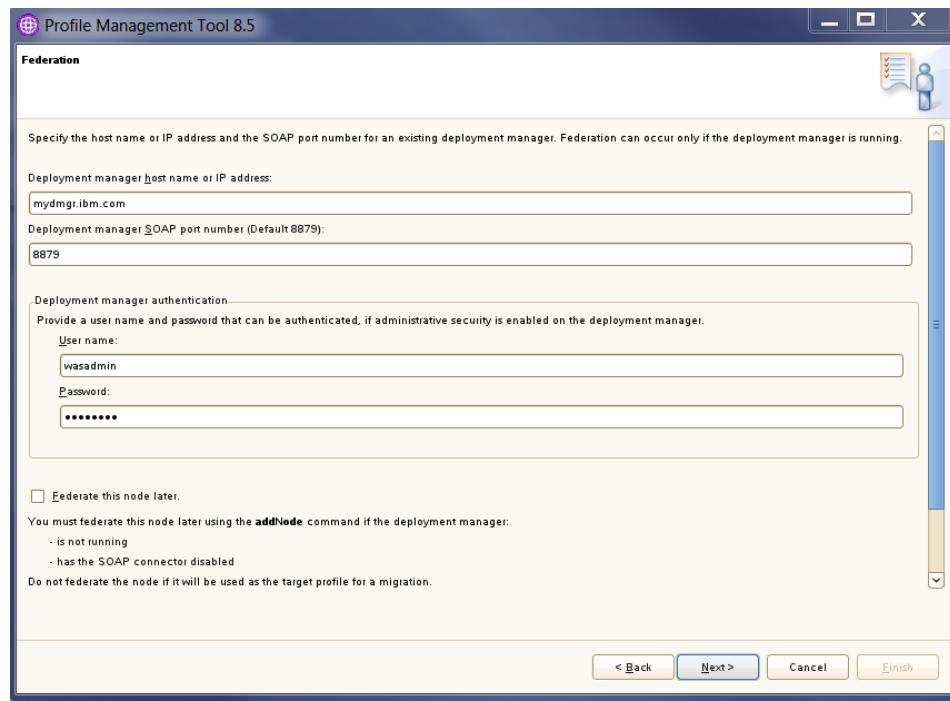
Example: feb86Node01

13. Enter/Verify the fully qualified host name for the environment.

Host name: \_\_\_\_\_

Example: feb86.ibm.com

14. Click Next



15. Fill in the following information

Deployment manager host name or IP address: \_\_\_\_\_

Deployment manager SOAP port number: \_\_\_\_\_

Deployment manager authentication

User name: \_\_\_\_\_

Password: \_\_\_\_\_

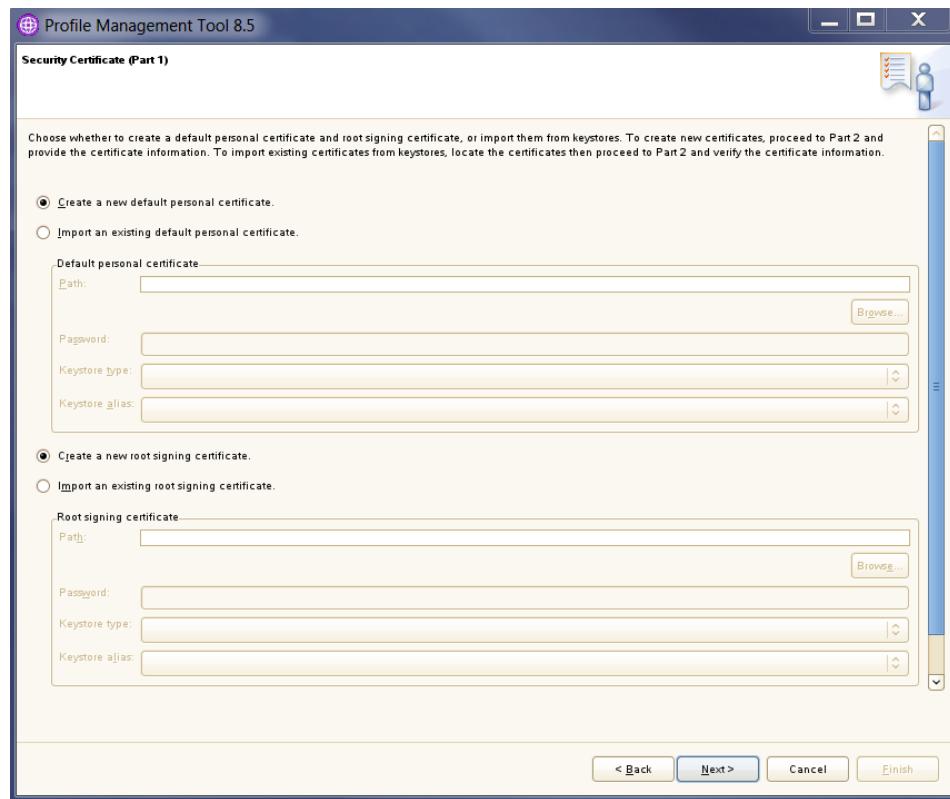
Example:

Deployment manager host name or IP address: mydmgr.ibm.com  
Deployment manager SOAP port number: 8879

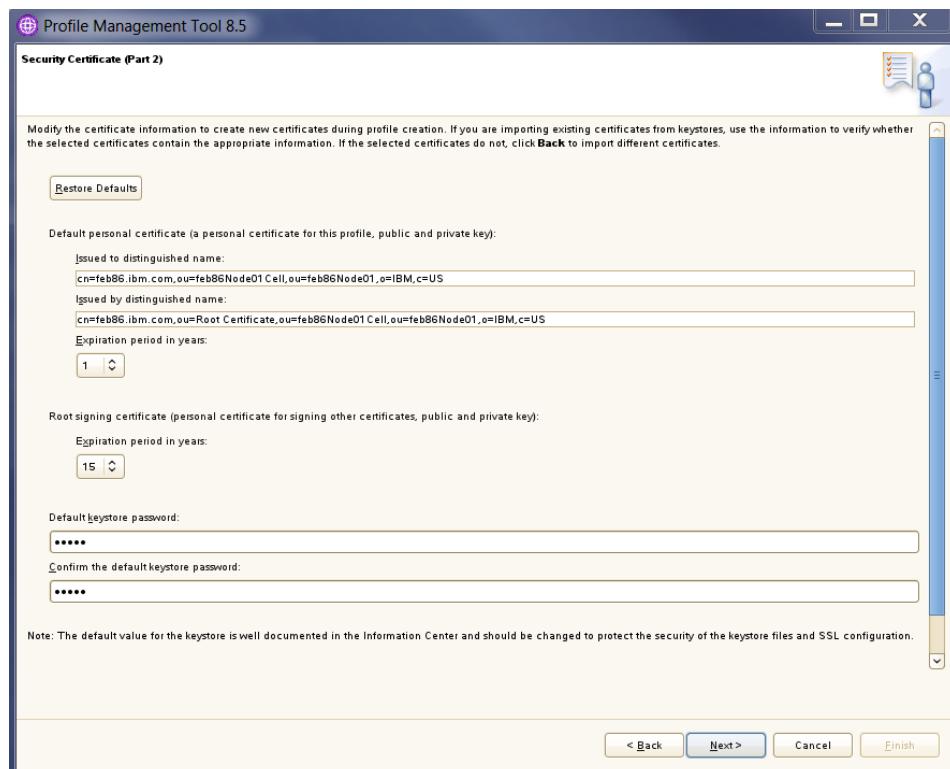
Deployment manager authentication

User name: wasadmin  
Password: XXXX

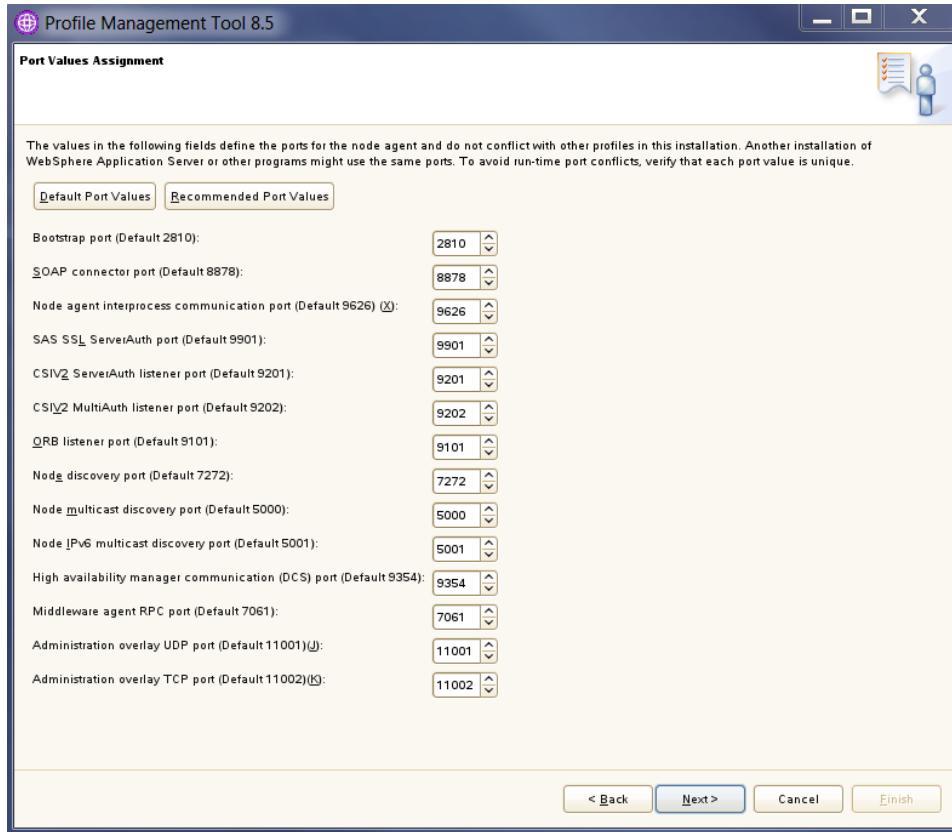
16. Click Next



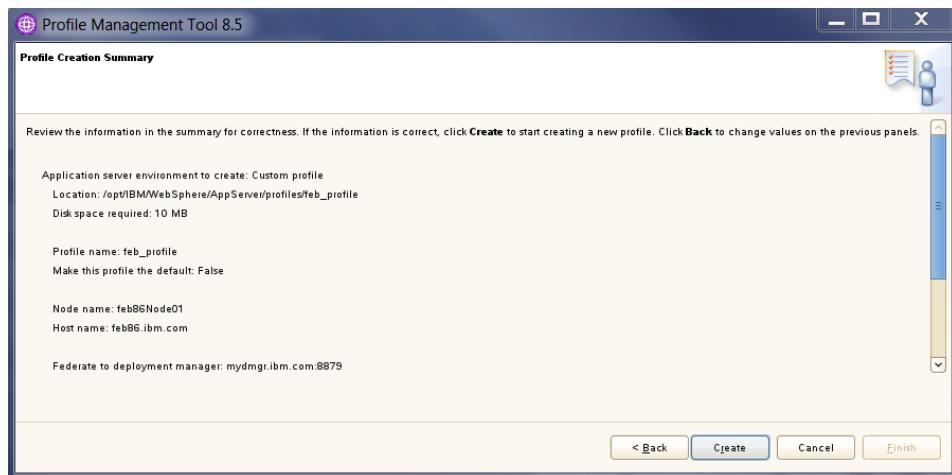
17. Signing certificates can be imported for the profile if this is a requirement. Otherwise, Click Next



18. The certificate information can be updated at this time if required.
19. Click Next

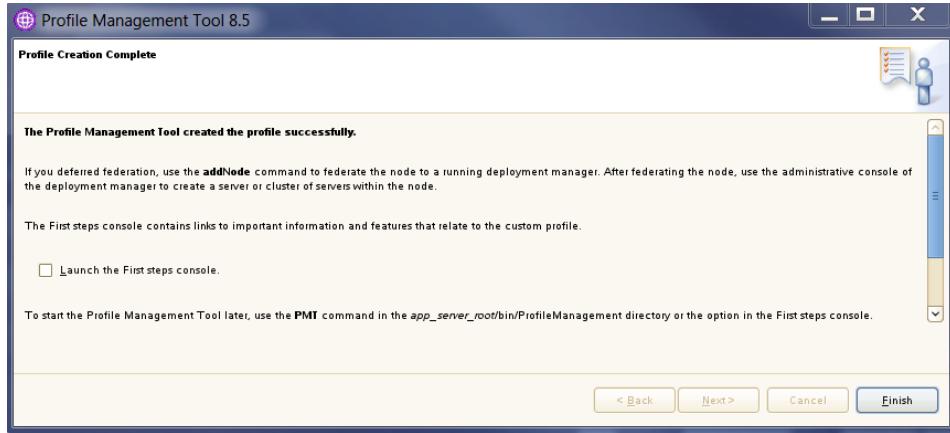


20. If there are any requirements for ports, the ports can be updated at this time.
21. Click Next



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

23. If everything is correct, click Create



24. 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.

25. Click Finish

### 7.3.2 Command Line

#### 1. Verify/Start the Deployment Manager

```
<DMGR_PROFILE>/bin/startManager. (bat/sh)
```

Example:

WIN	E:\IBM\WebSphere\AppServer\profiles\dmgr01\bin\startManager.bat
LINUX	/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/startManager.sh
AIX	/usr/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/startManager.sh

#### 2. Login to the IBM Forms Experience Builder file system

#### 3. Run the following command to create the IBM Forms Experience Builder profile and integrated it to the Deployment Manager

```
<WAS_HOME>/bin/manageprofiles. (bat/sh) -create -templatePath  
<WAS_HOME>/profileTemplates/managed -profileName <PROFILE_NAME> -  
profilePath <PROFILE_PATH> -hostName <HOSTNAME> -nodeName <NODENAME> -  
dmgrHost <DMGR_HOSTNAME> -dmgrPort <DMGR_SOAP_PORT>
```

NOTE: If the Deployment Manager is secured add the following attribute

```
-dmgrAdminUserName <WASADMIN>  
-dmgrAdminPassword <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 installation. It can be secured to an external user repository after the profile is created. In the example below, the Deployment Manager was secured

#### Example: WINDOWS

```
E:\IBM\WebSphere\AppServer\bin\manageprofiles.bat -create -templatePath  
E:\IBM\WebSphere\AppServer\profileTemplates\managed -profileName  
feb_profile -profilePath  
E:\IBM\WebSphere\AppServer\profiles\feb_profile -hostName feb86.ibm.com  
-nodeName feb86Node01 -dmgrHost mydmgr.ibm.com -dmgrPort 8879 -  
dmgrAdminUserName wasadmin -dmgrAdminPassword XXXX
```

#### Example: LINUX

```
/opt/IBM/WebSphere/AppServer/bin/manageprofiles.sh -create -  
templatePath /opt/IBM/WebSphere/AppServer/profileTemplates/managed -  
profileName feb_profile -profilePath  
/opt/IBM/WebSphere/AppServer/profiles/feb_profile -hostName  
feb86.ibm.com -nodeName feb86Node01 -dmgrHost mydmgr.ibm.com -dmgrPort  
8879 -dmgrAdminUserName wasadmin -dmgrAdminPassword XXXX
```

#### Example: AIX

```
/usr/IBM/WebSphere/AppServer/bin/manageprofiles.sh -create -  
templatePath /usr/IBM/WebSphere/AppServer/profileTemplates/managed -  
profileName feb_profile -profilePath  
/usr/IBM/WebSphere/AppServer/profiles/feb_profile -hostName  
feb86.ibm.com -nodeName feb86Node01 -dmgrHost mydmgr.ibm.com -dmgrPort  
8879 -dmgrAdminUserName wasadmin -dmgrAdminPassword XXXX
```

#### 4. Verify the results

```
INSTCONFSUCCESS: Success: Profile <PROFILE_NAME> now exists. Please  
consult <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 AppSrv01 now exists. Please consult  
/usr/IBM/WebSphere/AppServer/profiles/feb_profile/logs/AboutThisProfile  
.txt for more information about this profile.
```

## 7.4 Create Cluster

### 1. Verify/Start the Deployment Manager

```
<DMGR_PROFILE>/bin/startManager.(bat/sh)
```

Example:

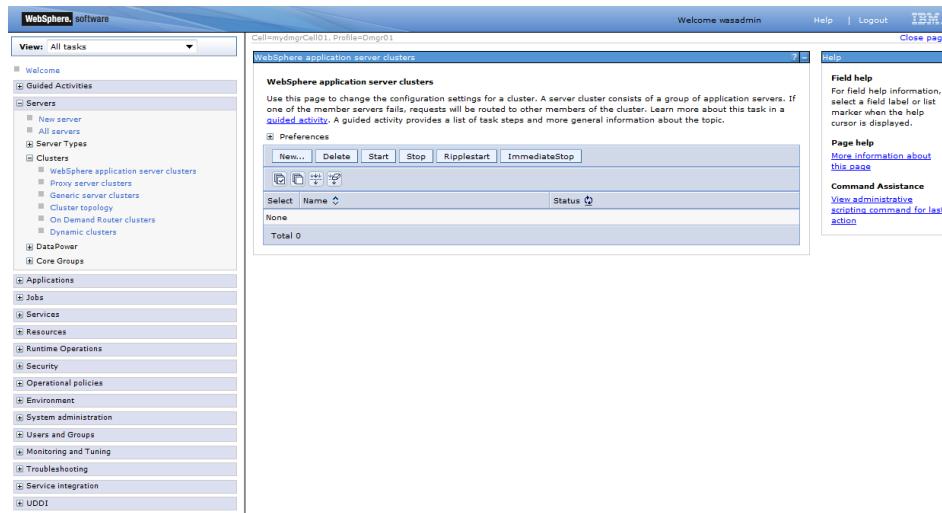
WIN	E:\IBM\WebSphere\AppServer\profiles\dmgr01\bin\startManager.bat
LINUX	/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/startManager.sh
AIX	/usr/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/startManager.sh

### 2. Open a browser and set the URL to the Deployment Manager URL

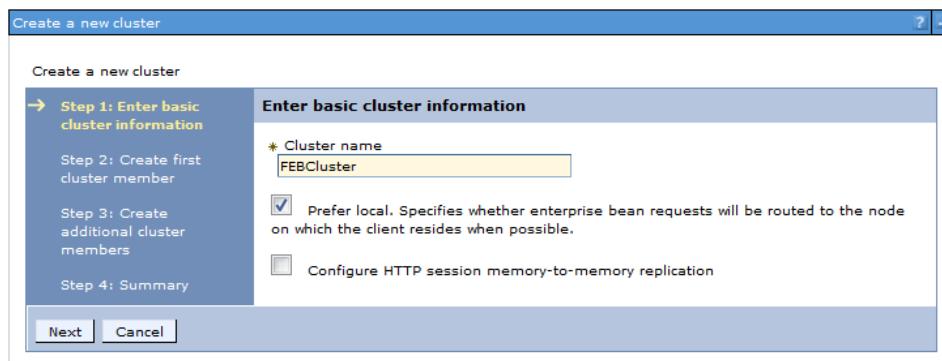
```
https://<DMGR_HOSTNAME>:<PORT>/ibm/console
```

Example:

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



3. Navigate to Servers > Clusters > WebSphere application server clusters
4. Click New



5. In the "Cluster name" field, enter a Forms Cluster Name

Cluster name = \_\_\_\_\_

Example: FEBCluster

6. Click Next

The screenshot shows the 'Create a new cluster' wizard, Step 2: Create first cluster member. The 'Member name' field contains 'feb01'. The 'Select node' dropdown is set to 'feb86Node01(ND 8.5.5.0)'. The 'Weight' field is set to '2'. The 'Generate unique HTTP ports' checkbox is checked. Under 'Select basis for first cluster member', the first radio button is selected, labeled 'Create the member using an application server template.' with 'default' in the dropdown. Other options include 'Create the member using an existing application server as a template.' (selected), '(none)', 'Create the member by converting an existing application server.', and 'None. Create an empty cluster.'.

7. Fill in the following information

Member name = \_\_\_\_\_

Select node = \_\_\_\_\_

Weight = \_\_\_\_\_

Example:

```
Member name = feb01
Select node = feb86Node01
Weight = 2
```

8. In the "Select node" drop down, select the node where to create the server.
9. Click Next

Create a new cluster

**Create a new cluster**

- Step 1: Enter basic cluster information
- Step 2: Create first cluster member
- **Step 3: Create additional cluster members**
- Step 4: Summary

### Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member, and stored as part of the cluster data. Additional cluster members are copied from this template.

\* Member name

Select node

\* Weight  (0..100)

Generate unique HTTP ports

Use the Edit function to modify the properties of a cluster member in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member.

Edit	Delete			
Select	Member name	Nodes	Version	Weight
	feb01	feb86Node01	ND 8.5.5.0	2
Total 1				

10. If you would like to add another server to the 2<sup>nd</sup> node you can do it now by clicking filling in the Member name field and clicking Add member. This can be done at another time.

11. Click Next

Create a new cluster

**Create a new cluster**

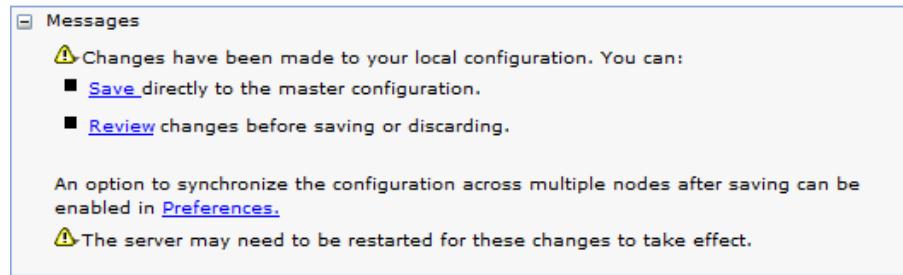
- Step 1: Enter basic cluster information
- Step 2: Create first cluster member
- Step 3: Create additional cluster members
- **Step 4: Summary**

### Summary

Summary of actions:

Options	Values
Cluster Name	FEBCluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	feb01
Node	feb86Node01(ND 8.5.5.0)
Weight	2
Clone Template	default
Clone Basis	Create the member using an application server template.
Select how the server resources are promoted in the cluster.	cluster
Generate unique HTTP ports	true

## 12. Click Finish



## 13. Click Save to save to the master configuration

The screenshot shows the 'WebSphere application server clusters' management interface. The page title is 'WebSphere application server clusters'. The main content area has the following sections:

- WebSphere application server clusters**: A brief description of what a server cluster is and how it works.
- Preferences**: A section with buttons for New..., Delete, Start, Stop, Ripplestart, and ImmediateStop.
- Select**: A checkbox for selecting items.
- Name**: A dropdown menu for sorting by name.
- Status**: A dropdown menu for sorting by status.
- You can administer the following resources:** A table listing resources:

Resource	Status
FEBCluster	✖
- Total 1**: A summary of the number of resources listed.

## 8 IBM Forms Experience Builder

### 8.1 Install

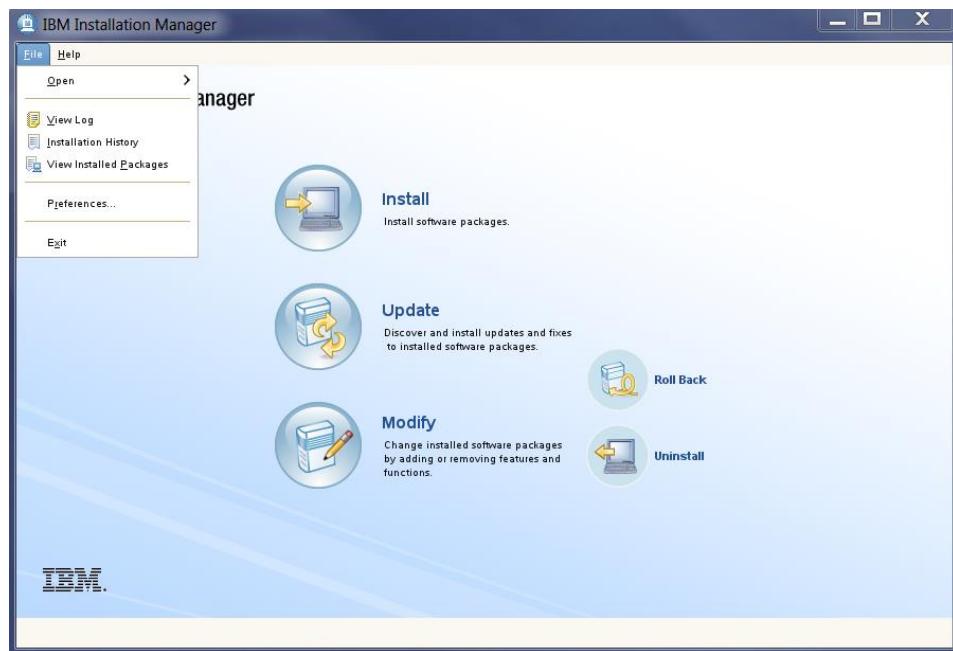
If you are using the graphical user interface to install on a UNIX environment, verify the UNIX environment is configured to display a remote graphical user interface.

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

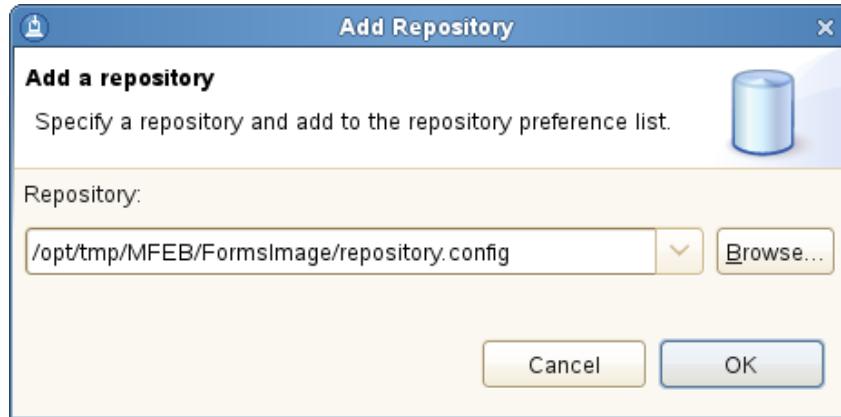
```
<IIM>/eclipse/IBMIM
```

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...



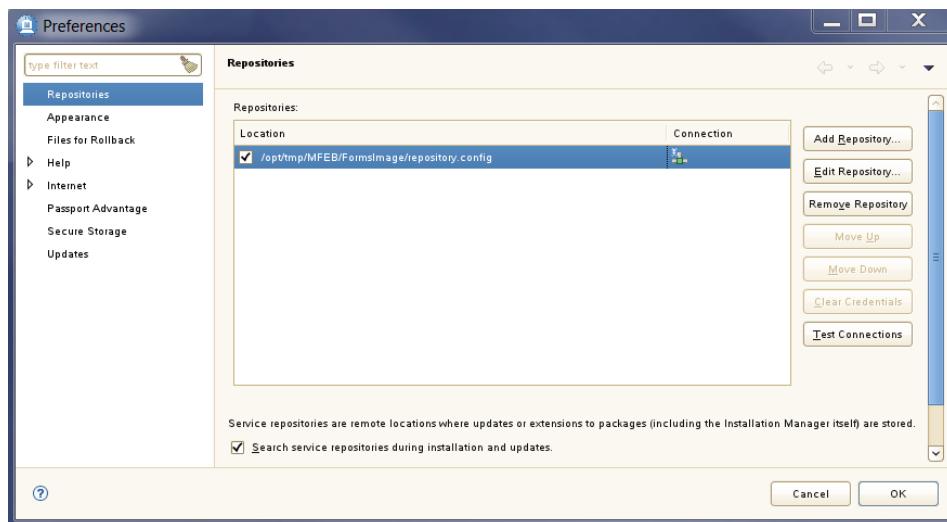
6. Enter/Browse to the repository.config of the IBM Forms Experience Builder located in the FormsImage of the media files

`<MFEB>/FormsImage/repository.config`

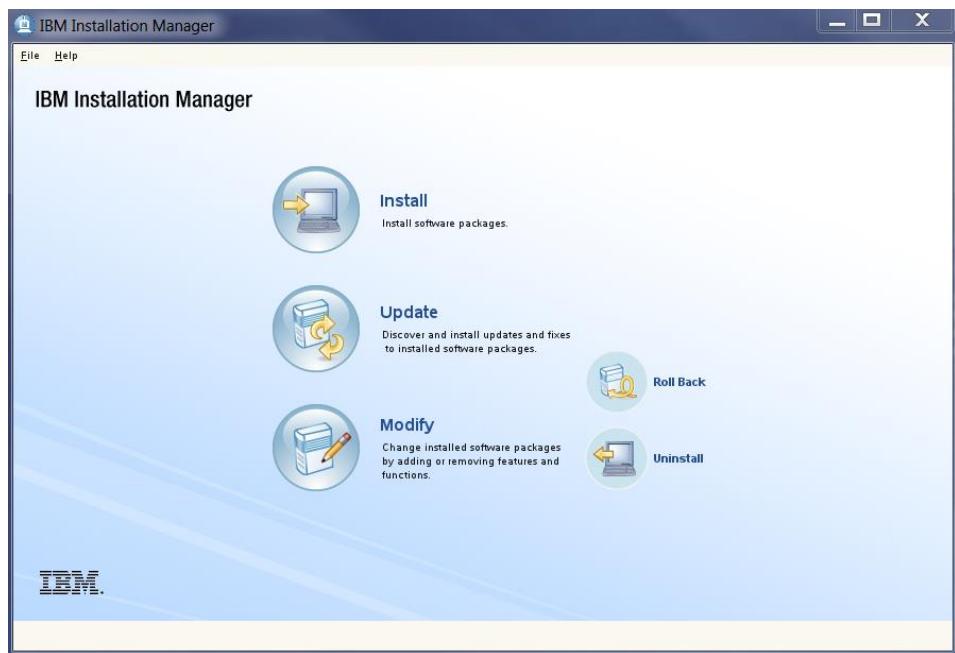
#### Example

WIN	<code>F:\MFEB\FormsImage\repository.config</code>
LINUX	<code>/opt/tmp/MFEB/FormsImage/repository.config</code>
AIX	<code>/usr/tmp/MFEB/FormsImage/repository.config</code>

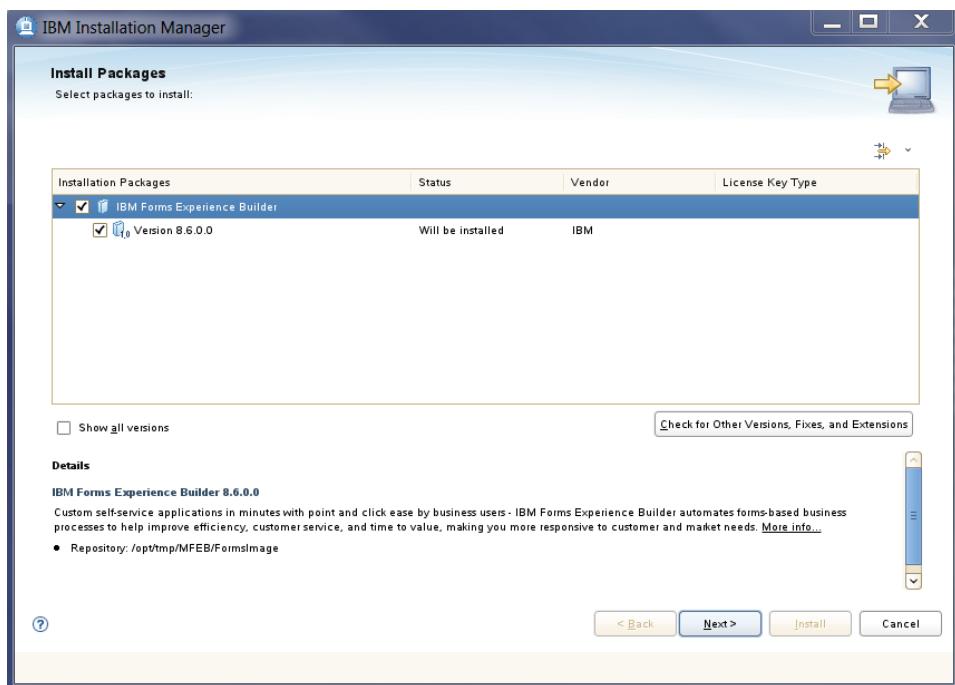
7. Click OK



8. Click OK



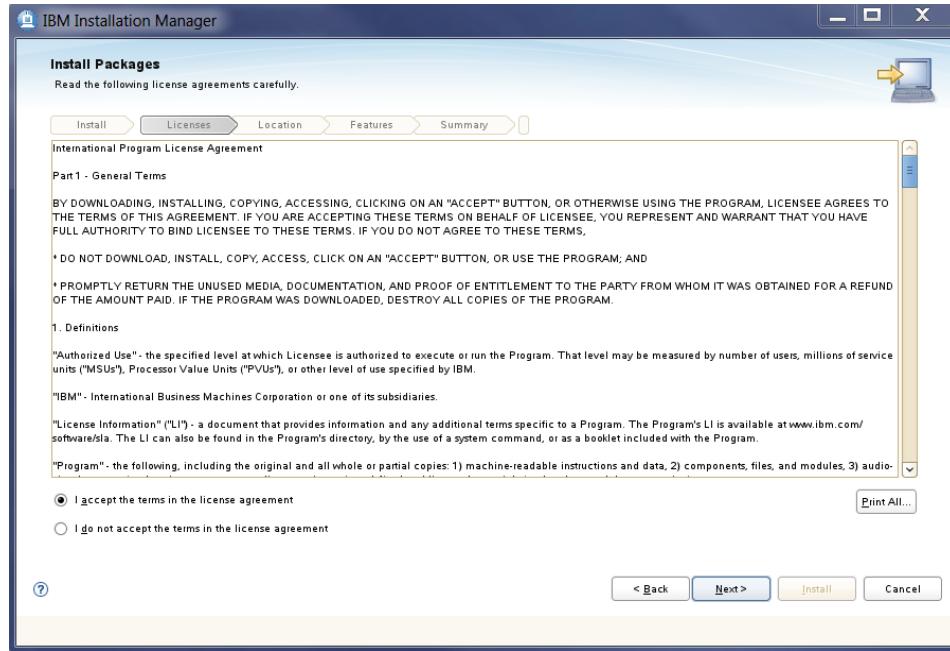
## 9. Click Install



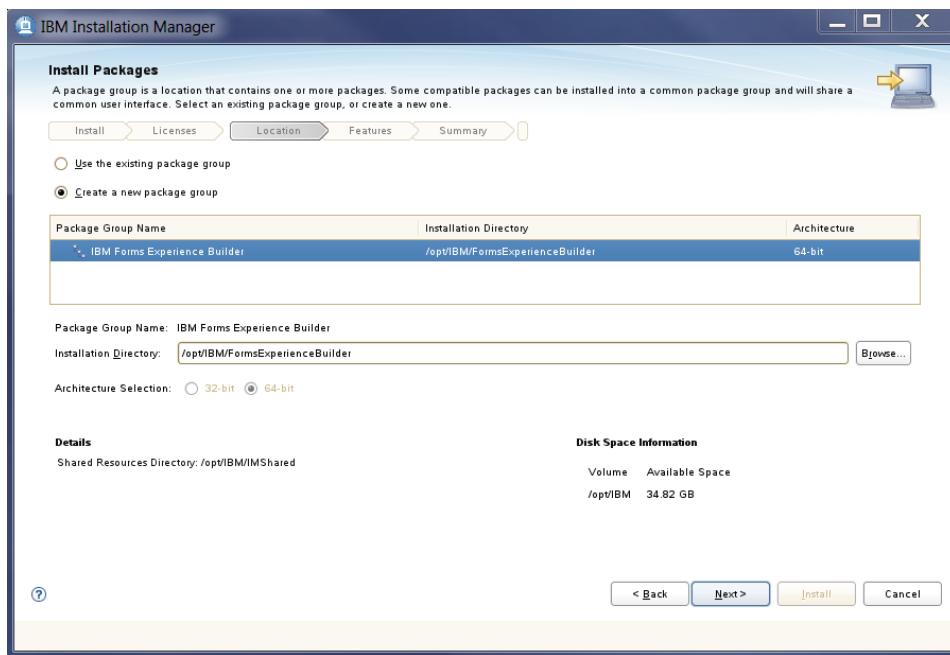
## 10. Under Installation Packages, check the following Packages

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



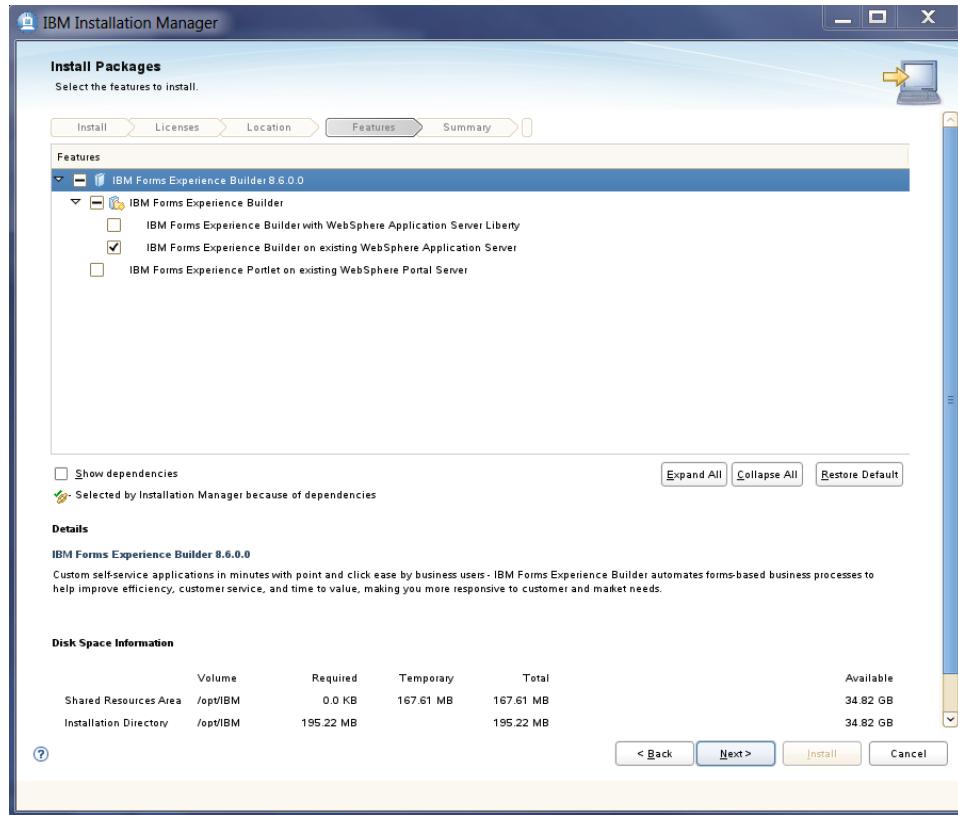
15. Under “Package Group Name”, select “IBM Forms Experience Builder”
16. Enter/Verify the installation directory for the IBM Forms Experience Builder

Installation Directory: \_\_\_\_\_

**Example:**

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

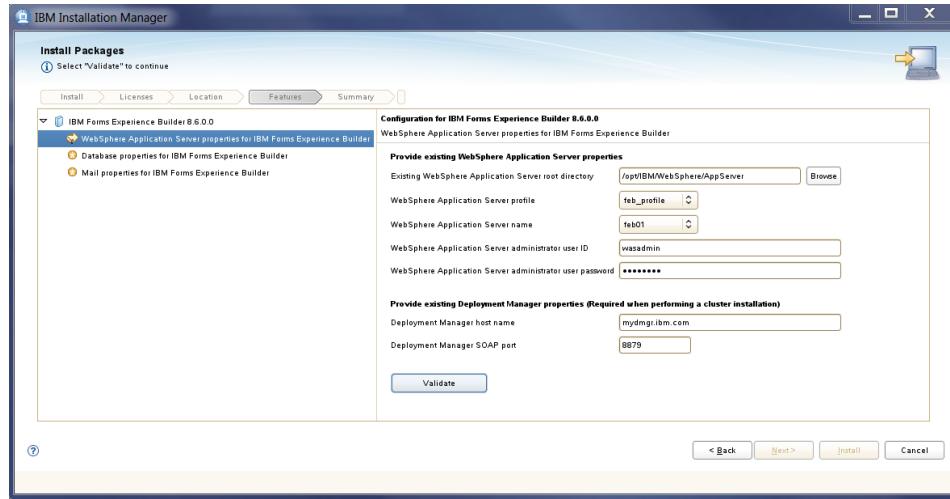
**17. Click Next**



**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:** feb01

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

**Example:** wasadmin/XXXX

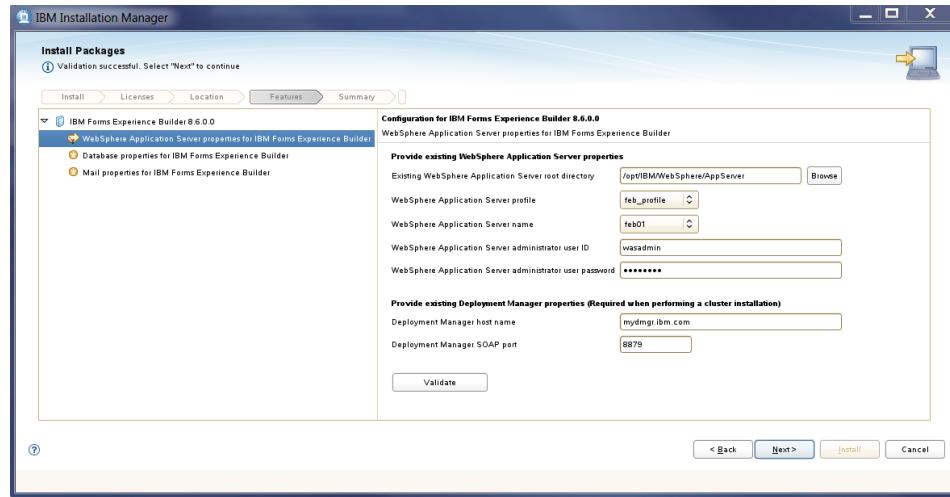
**24. Verify/Enter the Deployment Manager host name**

**Example:** mydmgr.ibm.com

**25. Verify/Enter the Deployment manager SOAP port**

**Example:** 8879

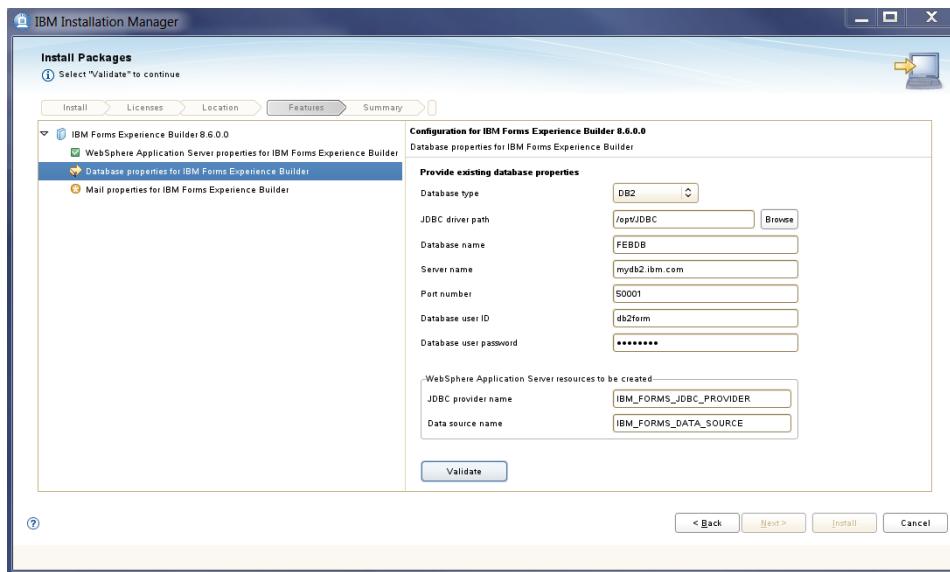
**26. Click Validate**



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

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

28. Click Next



29. Database type, select DB2

30. JDBC driver path, Browse to the DB2 driver directory

Example:

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

31. Database name, enter the database name

Example: FEBDB

32. Server name, enter the DB2 database server name

Example: mydb2.ibm.com

33. Port number, enter the DB2 Instance tcpip port. By default it is 50000.

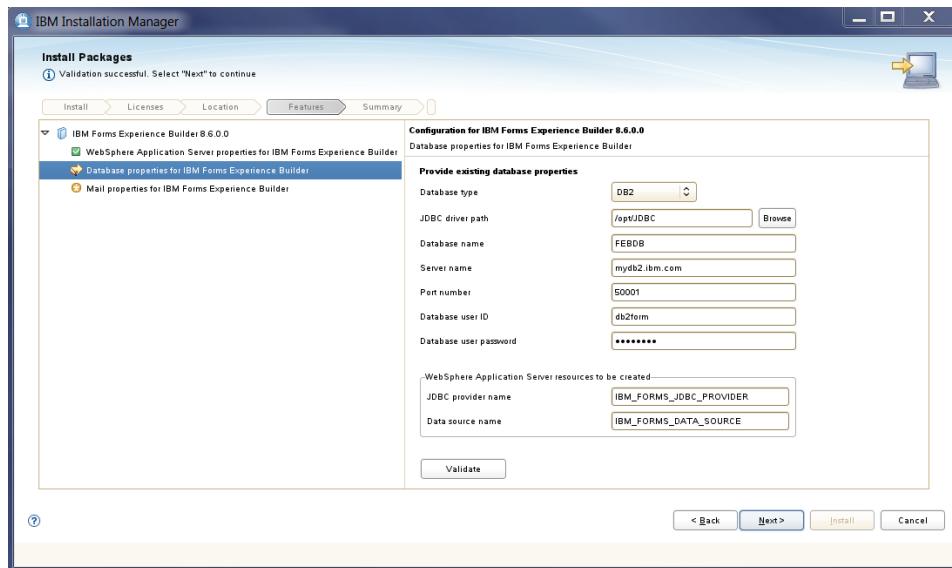
Example: 50001

34. Database user ID, enter the DB2 Database user

Example: db2form

35. Database user password, enter the DB2 database password

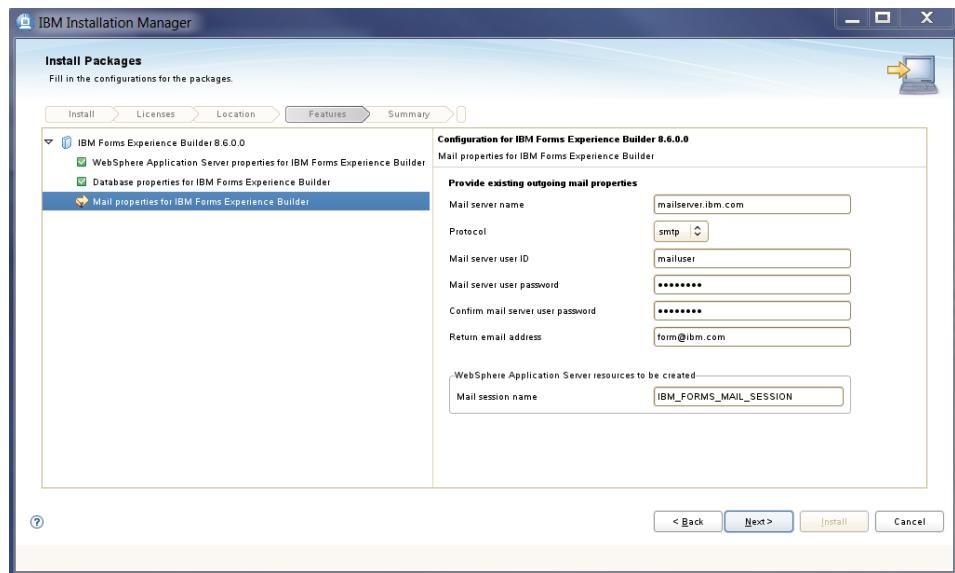
36. Click Validate



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

Validation successful. Select "Next" to continue

38. Click Next



39. Enter the Mail server hostname

Example: mailserver.ibm.com

40. Select the mail server protocol

Example: smtp

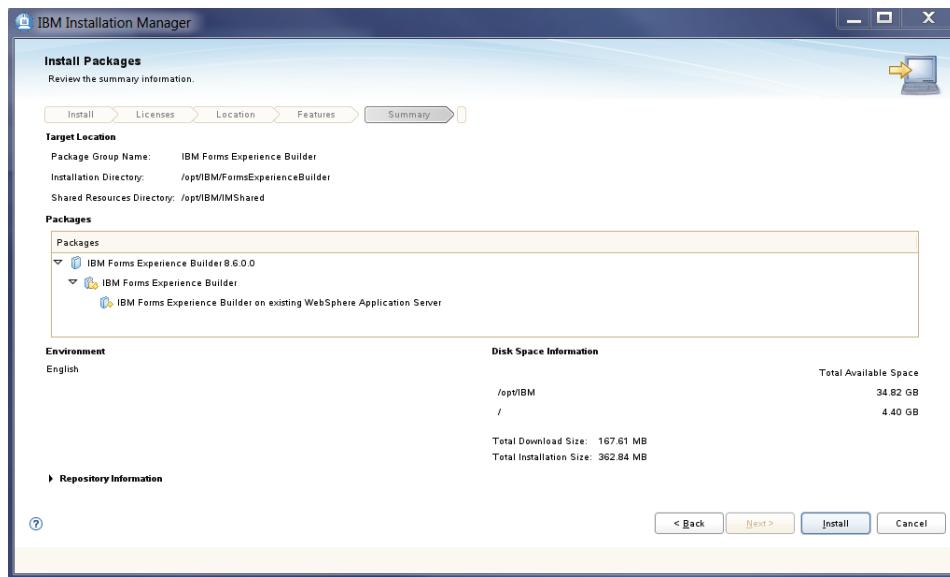
41. Enter the Mail server user ID and password

Example: mailuser/XXXX

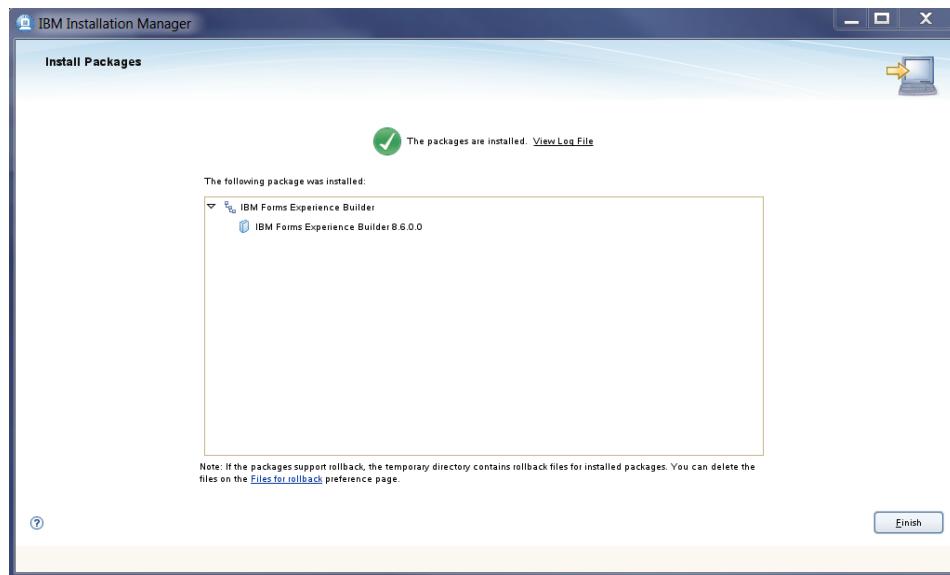
42. Enter the “Return email address”

Example: form@us.ibm.com

43. Click Next



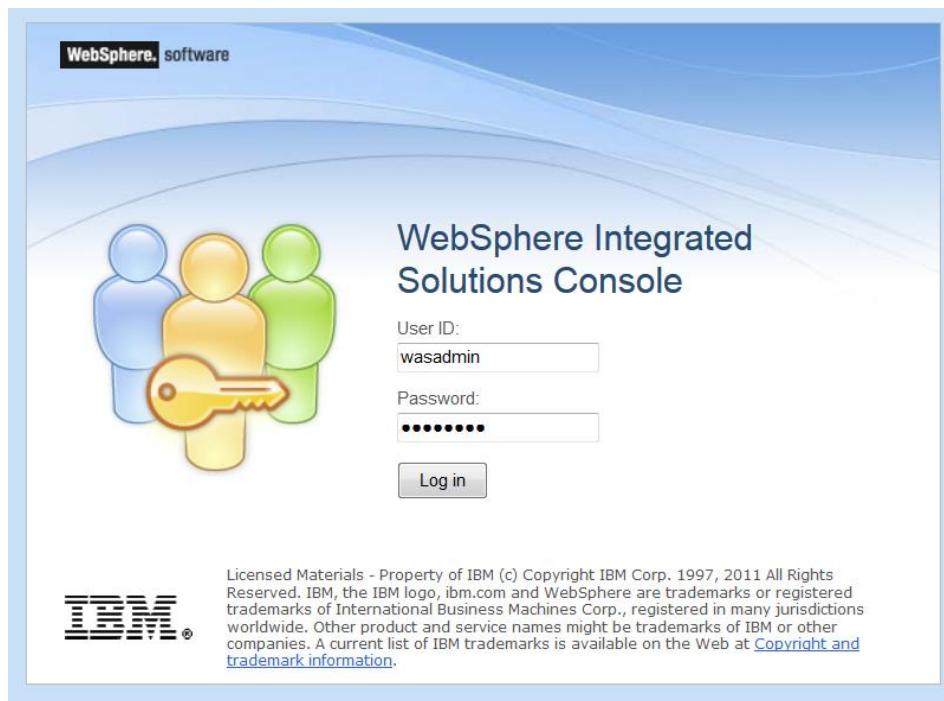
44. Click Install



45. 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



- 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](http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/co_configuring_the_properties_file.html)

- Login to the IBM Forms Experience Builder file system
- Open the Builder\_config.properties file with an editor

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

Example:

WIN	<code>C:\ibm\Forms\extensions\Builder_config.properties</code>
UNIX	<code>/opt/ibm/Forms/extensions/Builder_config.properties</code>

- 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](https://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/co_configuration_properties.html)

- 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](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](http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/in_setting_up_feb_environment.html)

1. Verify/Start the Deployment Manager

```
<DMGR_PROFILE>/bin/startManager.sh
```

Example: WINDOWS

```
E:\IBM\WebSphere\AppServer\profiles\dmgr01\bin\startManager.bat
```

Example: LINUX

```
/opt/IBM/WebSphere/AppServer/profiles/dmgr01/bin/startManager.sh
```

Example: AIX

```
/usr/IBM/WebSphere/AppServer/profiles/fep_profile/bin/startManager.sh
```

2. Verify/Start the nodeagent

```
<FEB_PROFILE>/bin/startNode.sh
```

Example: WINDOWS

```
E:\IBM\WebSphere\AppServer\profiles\fep_profile\bin\startNode.bat
```

Example: LINUX

```
/opt/IBM/WebSphere/AppServer/profiles/fep_profile/bin/startNode.sh
```

Example: AIX

```
/usr/IBM/WebSphere/AppServer/profiles/fep_profile/bin/startNode.sh
```

### 3. Verify/Start the IBM Forms Experience Builder server

```
<FEB PROFILE>/bin/startServer.sh <FEB SERVER>
```

## Example: WINDOWS

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

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

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

### Example:

<http://feb86.ibm.com:9080/forms>

5. 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.

## 6. 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**

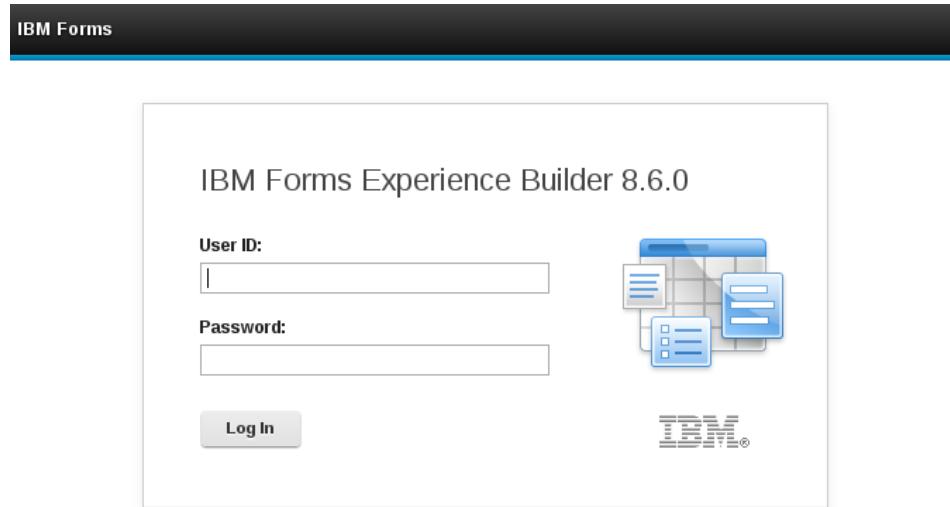
**Step 1: Mail Session**

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.

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



Licensed Materials - Property of IBM Corp. L-KMMR-9Q4RU9 (C) Copyright IBM Corporation and its  
Licensors 1994, 2014. All Rights Reserved. IBM and the IBM logo are trademarks of IBM  
Corporation in the United States, other countries, or both. Java and all Java-based trademarks and  
logos are trademarks or registered trademarks of Oracle and/or its affiliates. Built on Eclipse is a  
trademark of Eclipse Foundation, Inc. Other company, product or service names may be  
trademarks or service marks of others. This Program is licensed under the terms of the license  
agreement accompanying the Program. This license agreement may be either located in a  
Program directory folder or library identified as "License" or "Ibm\_IBM\_License", if applicable, or  
provided as a printed license agreement. Please read the agreement carefully before using the  
Program. By using the Program you agree to these terms.

8. 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**

9. Click “Continue to Manager”

The screenshot shows the 'Use Applications' section of the IBM Forms interface. It includes search fields for 'Search by Name' and 'Search by Tag', and navigation controls for 'Previous' and 'Next'. Below these are buttons for 'View as cloud', 'list', and 'all'. At the bottom of the page, there are links for 'Help', 'About', 'IBM Forms on ibm.com', and 'Feedback'.

## 8.4 Post Installation – Database

[http://www.ibm.com/support/knowledgecenter/SS6KJL\\_8.6.0/FEB/in\\_setting\\_up\\_feb\\_environment.html](http://www.ibm.com/support/knowledgecenter/SS6KJL_8.6.0/FEB/in_setting_up_feb_environment.html)

1. Login to the DB2 Server file system as the DB2 Instance administrator.
2. Start either the DB2 Command Line Processor or DB2 Command Window
3. Run the following command to connect to the database

- o DB2 Command Line Processor

```
db2 => connect to <DBNAME>
```

Example:

```
db2 => connect to FEBDB
```

- o DB2 Command Window

```
# db2 connect to <DBNAME>
```

Example:

```
# db2 connect to FEBDB
```

4. Run the following command to create the bufferpool to help minimize the database size as applications are created

- o DB2 Command Line Processor

```
db2 => CREATE BUFFERPOOL FEB4KBP IMMEDIATE SIZE 250 AUTOMATIC  
PAGESIZE 4 K
```

```
db2 => CREATE BUFFERPOOL FEB8KBP IMMEDIATE SIZE 250 AUTOMATIC  
PAGESIZE 8 K
```

```
db2 => CREATE BUFFERPOOL FEB16KBP IMMEDIATE SIZE 250 AUTOMATIC  
PAGESIZE 16 K
```

- DB2 Command Window

```
# db2 CREATE BUFFERPOOL FEB4KBP IMMEDIATE SIZE 250 AUTOMATIC  
PAGESIZE 4 K  
  
# db2 CREATE BUFFERPOOL FEB8KBP IMMEDIATE SIZE 250 AUTOMATIC  
PAGESIZE 8 K  
  
# db2 CREATE BUFFERPOOL FEB16KBP IMMEDIATE SIZE 250 AUTOMATIC  
PAGESIZE 16 K
```

5. Run the following command to create the tablespace to help minimize the database size as applications are created

- DB2 Command Line Processor

```
db2 => CREATE LARGE TABLESPACE USERSPACE4K PAGESIZE 4 K MANAGED  
BY AUTOMATIC STORAGE BUFFERPOOL FEB4KBP  
  
db2 => CREATE LARGE TABLESPACE USERSPACE8K PAGESIZE 8 K MANAGED  
BY AUTOMATIC STORAGE BUFFERPOOL FEB8KBP  
  
db2 => CREATE LARGE TABLESPACE USERSPACE16K PAGESIZE 16 K MANAGED  
BY AUTOMATIC STORAGE BUFFERPOOL FEB16KBP
```

- DB2 Command Window

```
# db2 CREATE LARGE TABLESPACE USERSPACE4K PAGESIZE 4 K MANAGED BY  
AUTOMATIC STORAGE BUFFERPOOL FEB4KBP  
  
# db2 CREATE LARGE TABLESPACE USERSPACE8K PAGESIZE 8 K MANAGED BY  
AUTOMATIC STORAGE BUFFERPOOL FEB8KBP  
  
# db2 CREATE LARGE TABLESPACE USERSPACE16K PAGESIZE 16 K MANAGED  
BY AUTOMATIC STORAGE BUFFERPOOL FEB16KBP
```

6. Run the following command to set grant use permission for each tablespace

- DB2 Command Line Processor

```
db2=> GRANT USE OF TABLESPACE USERSPACE4K TO <DB2_FORM_USER>  
db2=> GRANT USE OF TABLESPACE USERSPACE8K TO <DB2_FORM_USER>  
db2=> GRANT USE OF TABLESPACE USERSPACE16K TO <DB2_FORM_USER>
```

**Example:**

```
db2=> GRANT USE OF TABLESPACE USERSPACE4K TO db2form  
db2=> GRANT USE OF TABLESPACE USERSPACE8K TO db2form  
db2=> GRANT USE OF TABLESPACE USERSPACE16K TO db2form
```

- DB2 Command Window

```
# db2 GRANT USE OF TABLESPACE USERSPACE4K TO <DB2_FORM_USER>  
# db2 GRANT USE OF TABLESPACE USERSPACE8K TO <DB2_FORM_USER>  
# db2 GRANT USE OF TABLESPACE USERSPACE16K TO <DB2_FORM_USER>
```

**Example:**

```
# db2 GRANT USE OF TABLESPACE USERSPACE4K TO db2form  
# db2 GRANT USE OF TABLESPACE USERSPACE8K TO db2form  
# db2 GRANT USE OF TABLESPACE USERSPACE16K TO db2form
```

8. Run the following command to terminate the connection

- o DB2 Command Line Processor

```
db2=> terminate
```

- o DB2 Command Window

```
db2 terminate
```

## 9 WebServer

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. A WebServer is only required if you want to load balance between 2 cluster members.

### 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**

```
/usr/IBM/InstallationManager/eclipse/tools/imcl install  
com.ibm.websphere.PLG.v85 -silent -acceptLicense -installationDirectory  
/usr/IBM/WebSphere/Plugins -repositories  
/usr/tmp/MWASSUPP/repository.config -sharedResourcesDirectory  
/usr/IBM/IMShared -log /opt/usr/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  
E:\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.bat install  
com.ibm.websphere.WCT.v85 -silent -acceptLicense -installationDirectory  
E:\IBM\WebSphere\Tools -repositories E:\tmp\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](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=<DMGR_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=mydmgr.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:  <DMGR_PROFILE>\bin\configure<WEB_DEF>.bat
```

### Example:

```
Before:  
E:\IBM\WebSphere\Plugins\bin\configurewebserver1.bat  
  
After:  
E:\IBM\WebSphere\AppServer\profiles\dmgr01\bin\configurewebserver1.bat
```

## 8. Login to the Deployment Manager file system

## 9. Start the Deployment Manager java process

```
<DMGR_PROFILE>\bin\startManager.bat
```

### Example:

```
E:\IBM\WebSphere\AppServer\profiles\dmgr01\bin\startManager.bat
```

## 10. Change to the bin directory of the Deployment Manager profile

### Example:

```
E:\IBM\WebSphere\AppServer\profiles\dmgr01\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 Forms Experience Builder.  
  
Start saving the configuration.  
  
Configuration save is complete.
```

## 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=<DMGR_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=mydmgr.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=mydmgr.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>
```

### Example: LINUX

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

### Example: AIX

```
/usr/IBM/WebSphere/Tools/WCT/wctcmd.sh -tool pct -defLocPathname
/usr/IBM/WebSphere/Plugins -defLocName webplugin -createDefinition -
response /usr/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 Deployment Manager profile

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

### Example: LINUX

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

After:
/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/configurewebserver1.sh
```

### Example: AIX

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

After:
/usr/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/configurewebserver1.sh
```

8. Login to the Deployment Manager file system
9. Verify/Start the Deployment Manager

```
<DMGR_PROFILE>/bin/startManager.bat
```

#### Example: LINUX

```
/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/startManager.sh
```

#### Example: AIX

```
/usr/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/startManager.sh
```

10. Change to the bin directory of the Deployment Manager profile

#### Example:

LINUX	/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin
AIX	/usr/IBM/WebSphere/AppServer/profiles/Dmgr01/bin

11. Run the following command to execute the script

```
./configureWebserver1.sh -user <WASADMIN> -password <WASPWD>
```

12. Verify the results

Target mapping is updated for the application Forms Experience Builder.

Start saving the configuration.

Configuration save is complete.

## 9.3 Generate/Propagate Plugin

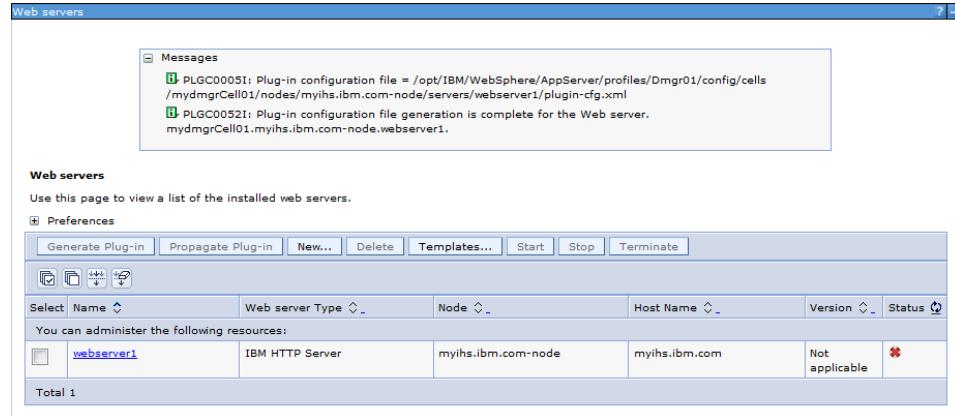
1. Login to the Deployment Manager Console

```
https://<DMGR_HOSTNAME>:<DMGR_PORT>/ibm/console
```

Example: <https://mydmgr.ibm.com:9043/ibm/console>

The screenshot shows the WebSphere Deployment Manager Console interface. On the left, there's a navigation sidebar with categories like Servers, Clusters, Applications, Services, Resources, Security, Operational policies, Environment, System administration, Users and Groups, Monitoring and Tuning, Troubleshooting, Service integration, and UDDI. The main content area is titled 'Web servers' and contains a table with one row. The table columns are 'Select', 'Name', 'Web server Type', 'Node', 'Host Name', 'Version', and 'Status'. The single entry is 'myhaibm' (selected), 'IBM HTTP Server', 'myhaibm.com-node', 'myhaibm.com', 'Not applicable', and a red warning icon. At the top right, there are links for 'Help', 'Logout', and 'Close page'. Below the table, there's a note about field help and a 'Page Help' link. At the bottom right, there's a 'Command Assistance' section with a link to 'View administrative scripting 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:**  
`<DMGR_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\dmgr01\config\cells\mydmgrCell01\nodes\myihs.ibm.com-node\servers\webserver1\*`

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

#### Example: LINUX

**FROM:**  
`/opt/IBM/WebSphere/AppServer/profiles/dmgr01/config/cells/mydmgrCell01/nodes/myihs.ibm.com-node/servers/webserver1/*`

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

#### Example: AIX

**FROM:**  
`/usr/IBM/WebSphere/AppServer/profiles/dmgr01/config/cells/mydmgrCell01/nodes/myihs.ibm.com-node/servers/webserver1/*`

**TO:**

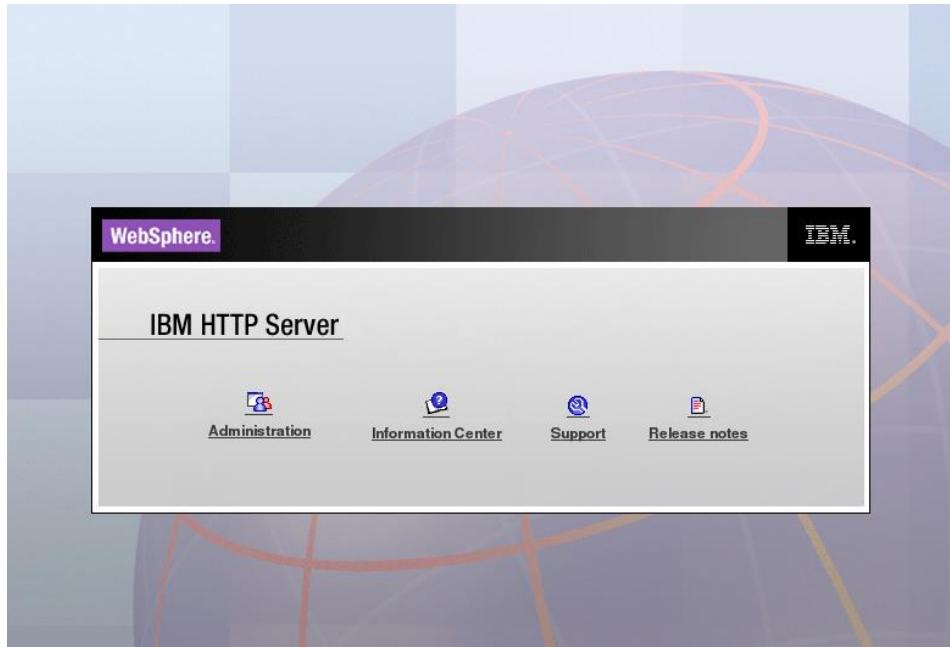
```
/usr/IBM/WebSphere/Plugins/config/webserver1/*
```

## 6. Restart/Start the WebServer

```
<IHS_HOME>/bin/apachectl start
```

### Example:

WIN	E:\IBM\HTTPServer\bin\apachectl start
LINUX	/opt/IBM/HTTPServer/bin/apachectl start
AIX	/usr/IBM/HTTPServer/bin/apachectl start

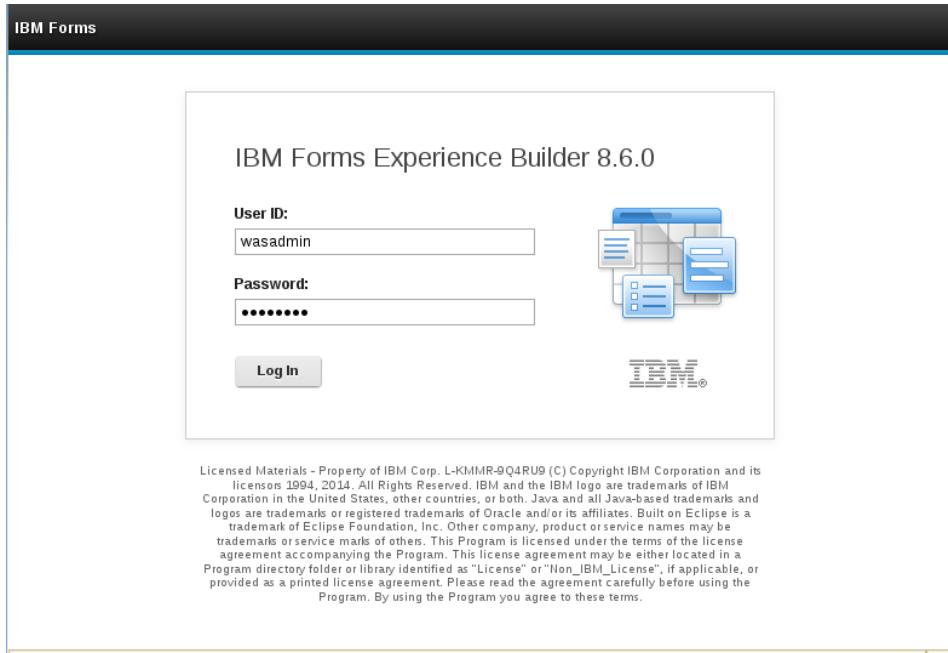


## 7. Open a browser and set the url to the web server hostname

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

### Example:

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



## 8. Verify/Start the Node Agent

```
<FEB_PROFILE>/bin/startNode.(bat/sh)
```

### Example: WINDOWS

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

### Example: LINUX

```
/opt/IBM/WebSphere/AppServer/profiles/feb_profile/bin/startNode.sh
```

### Example: AIX

```
/usr/IBM/WebSphere/AppServer/profiles/feb_profile/bin/startNode.sh
```

## 9. Restart/Start the IBM Forms Experience Builder server

```
<FEB_PROFILE>/bin/startServer.(bat/sh) <FEB_SERVER>
```

### Example: WINDOWS

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

## 10. 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](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) <APPERVER_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](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](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](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.