

IBM Forms Experience Builder 8.6 Standalone Installation with DB2

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1 Information

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

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

IBM Forms Experience Builder 8.6 supports multiple types of databases such as DB2, Oracle and Derby. 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
- IBM Forms Experience Builder 8.6.X Detailed System Requirements
<http://www-01.ibm.com/support/docview.wss?uid=swg27044505>
- WebSphere Application Server 8.5.5 Infocenter
http://www-01.ibm.com/support/knowledgecenter/?lang=en#/SSAW57_8.5.5/as_ditamaps/was855_welcome_ndmp.html
- Installation Manager Documentation
http://pic.dhe.ibm.com/infocenter/install/v1r7/index.jsp?topic=%2Fcom.ibm.cic.agent.ui.doc%2Fhelpindex_imic.html

This document is not written or supported by IBM Support

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

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 (Optional)

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

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

MEDIA = _____

Example:

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

Media	File Name	Description
CIK1VML	WAS_V8.5.5_SUPP_1_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

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.

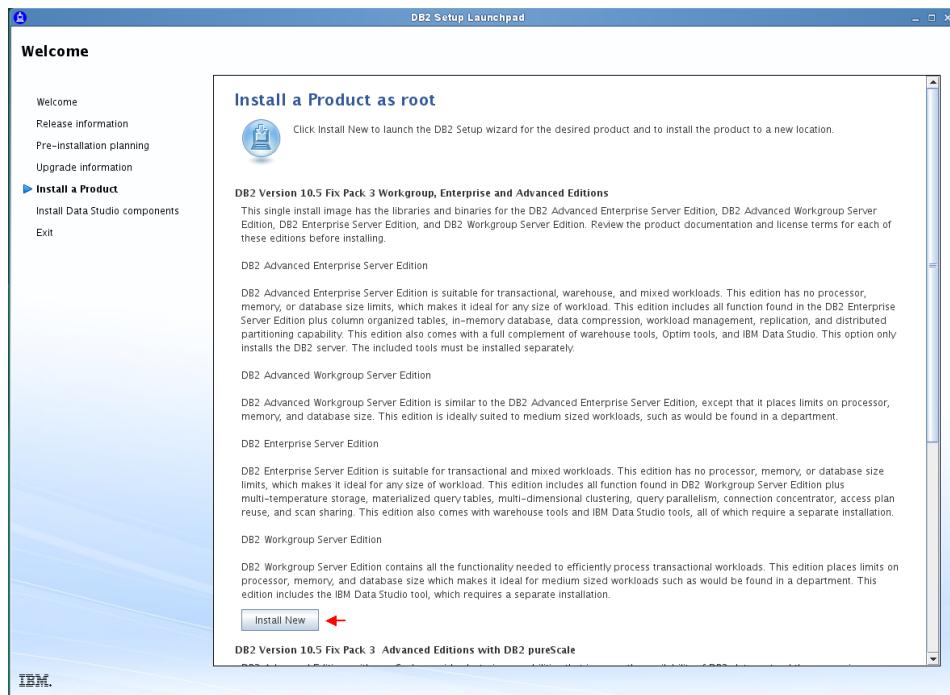
The images in this section were captured from a Linux installation.

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

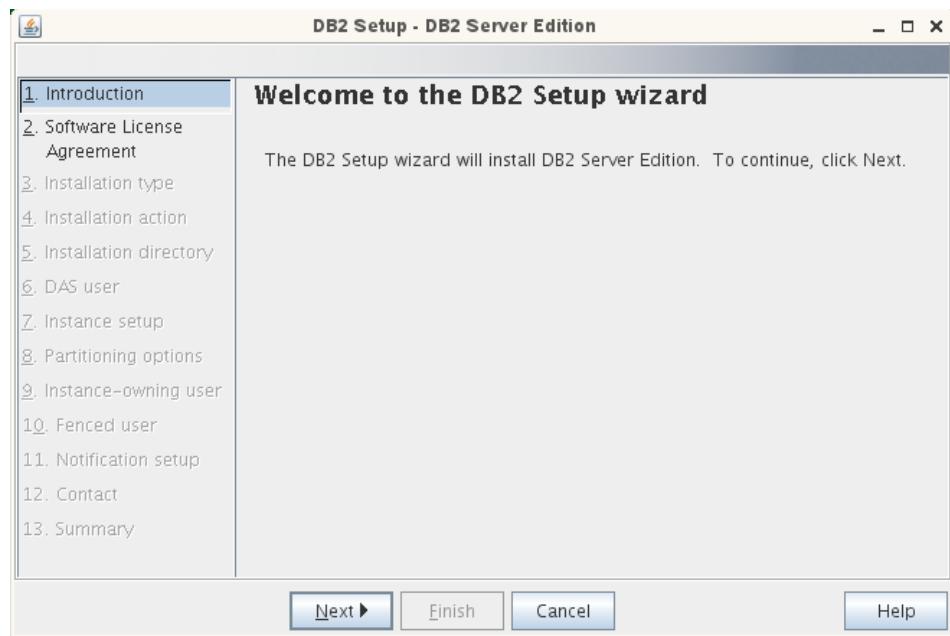
```
WIN      <MEDIA>/SERVER_R/image/setup.exe  
UNIX    <MEDIA>/server_r/db2setup
```



3. On the left menu, select Install a Product



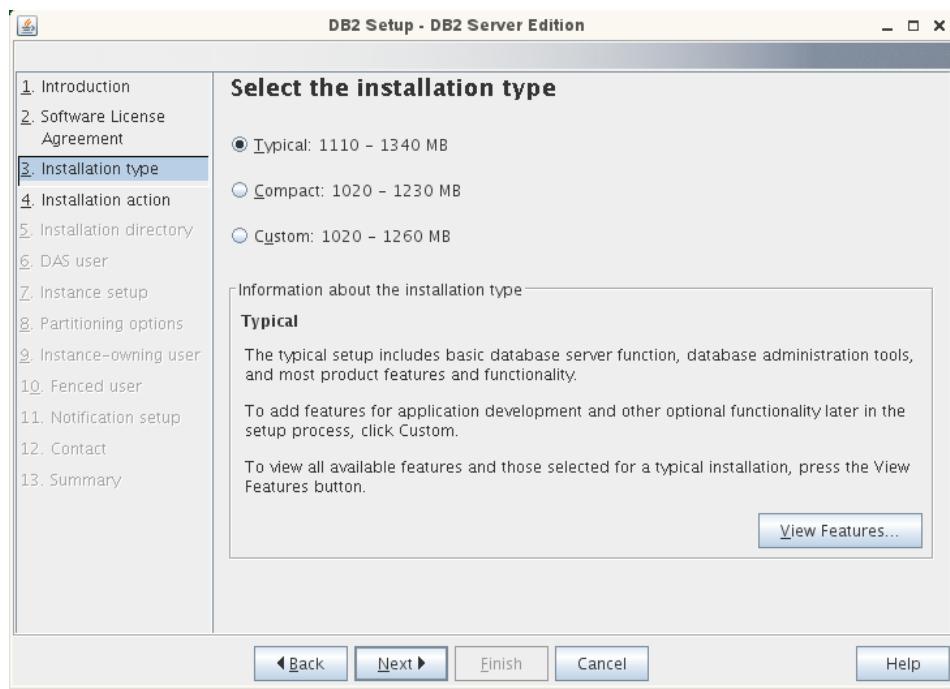
4. Under DB2 Version 10.5 Fixpack 3 Workgroup, Enterprise and Advanced Editions, click Install New



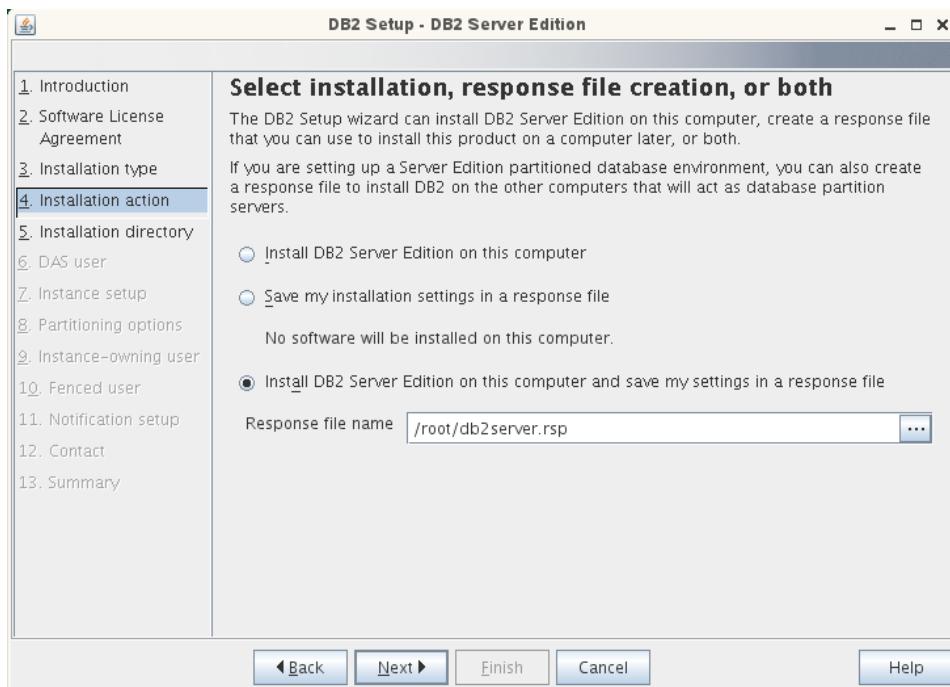
5. Click Next



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

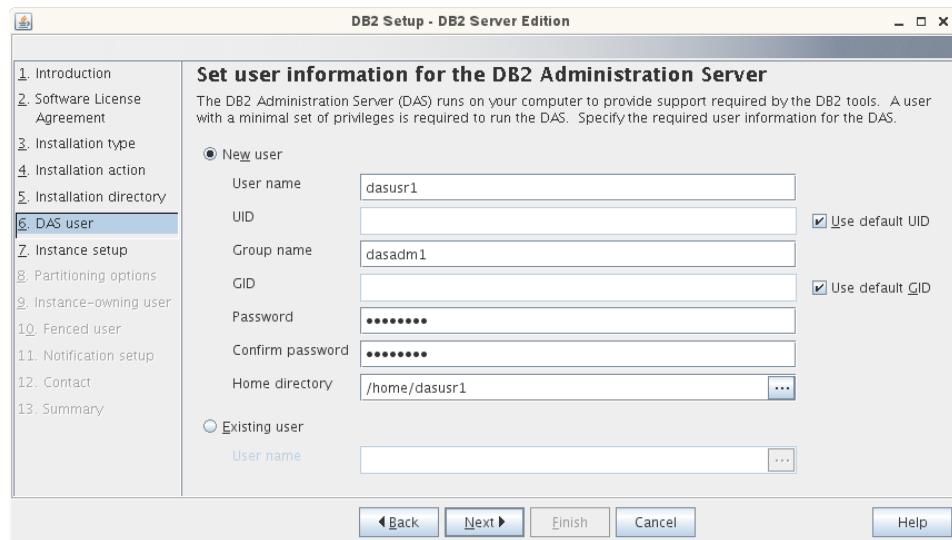
DB2_HOME = _____

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 “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.

17. Click Next



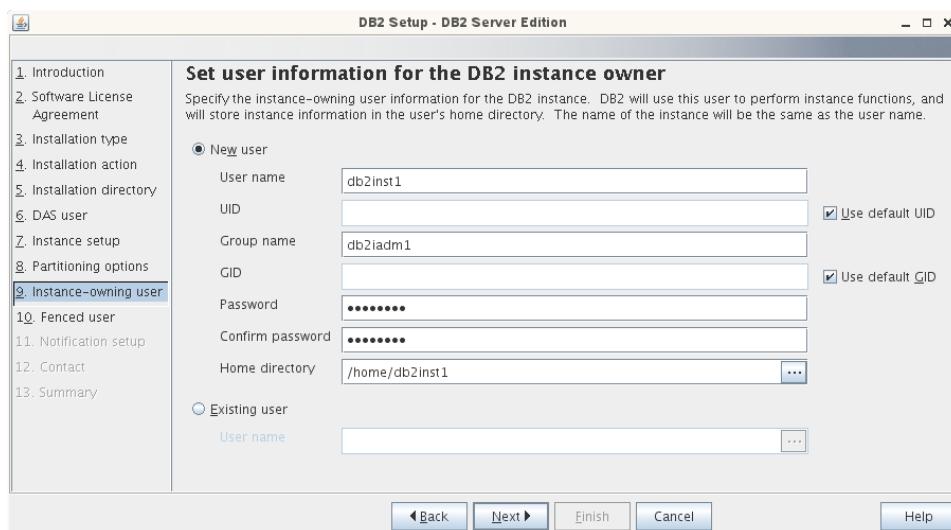
18. Select “Create a DB2 instance”

19. Click Next



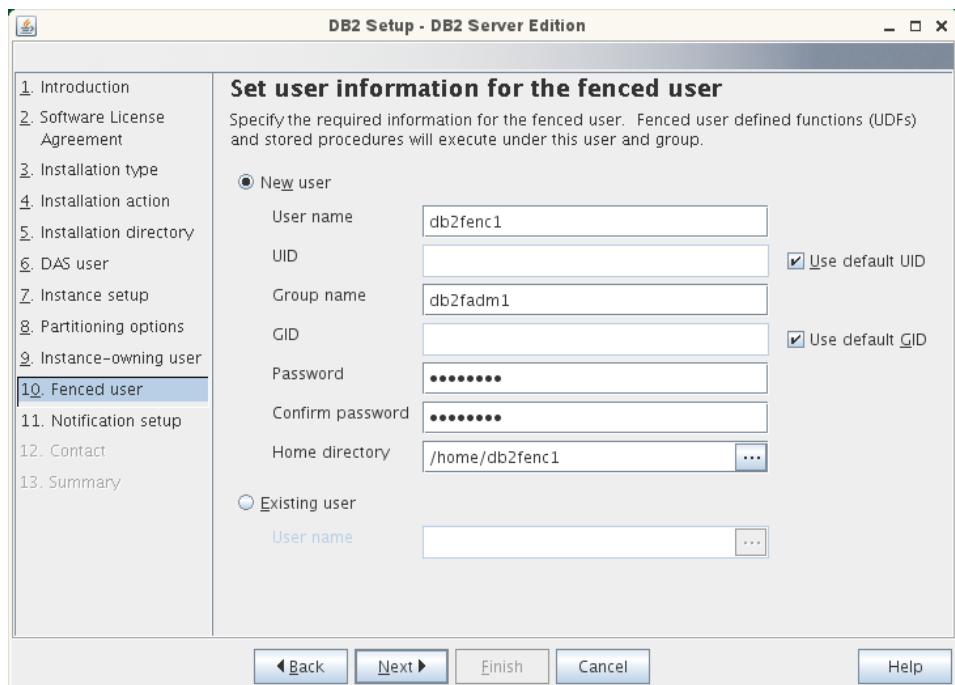
20. Select the type of partitioning. In the example, “Single partition Instance” was selected by default.

21. Click Next



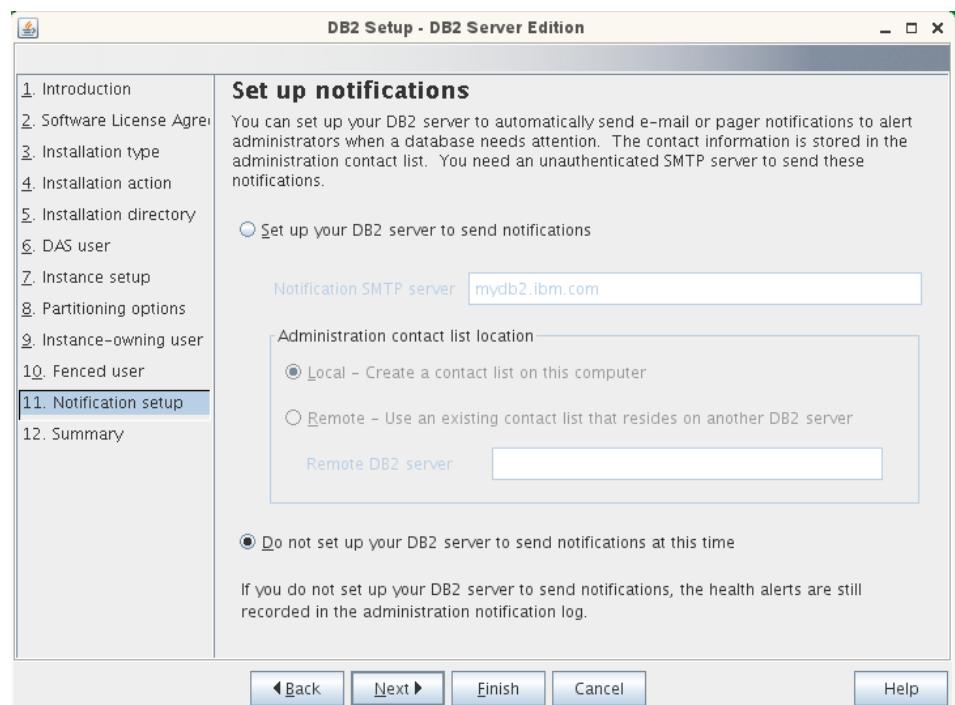
22. Select either New User or Existing user. Fill in the information required for the selection. In the example, “New user” was selected as default and the Password was filled in.

23. Click Next



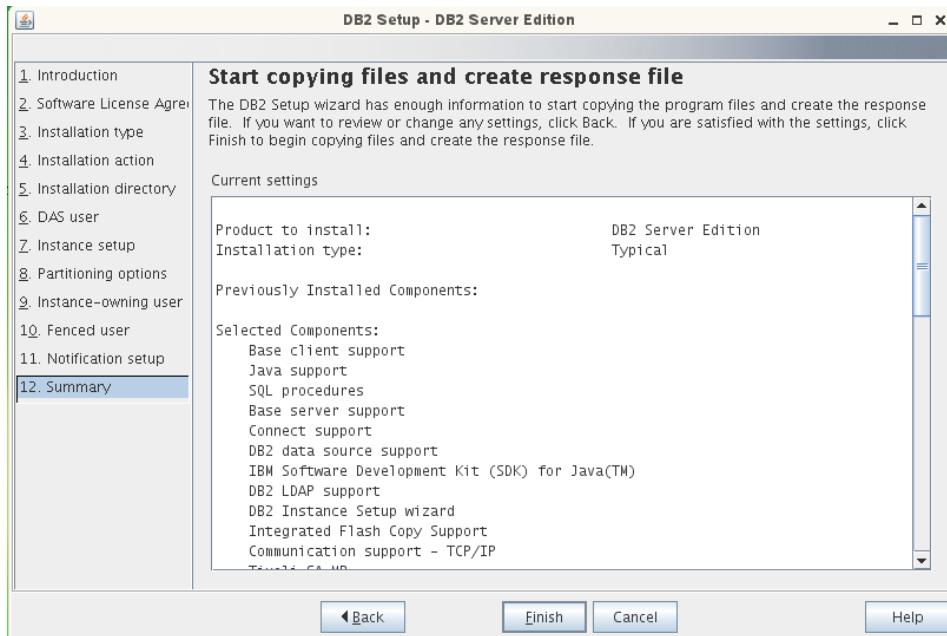
24. Select either “New User” or “Existing user”. Fill in the information required for the selection. In the example, “New user” was selected as default and the Password was filled in.

25. Click Next

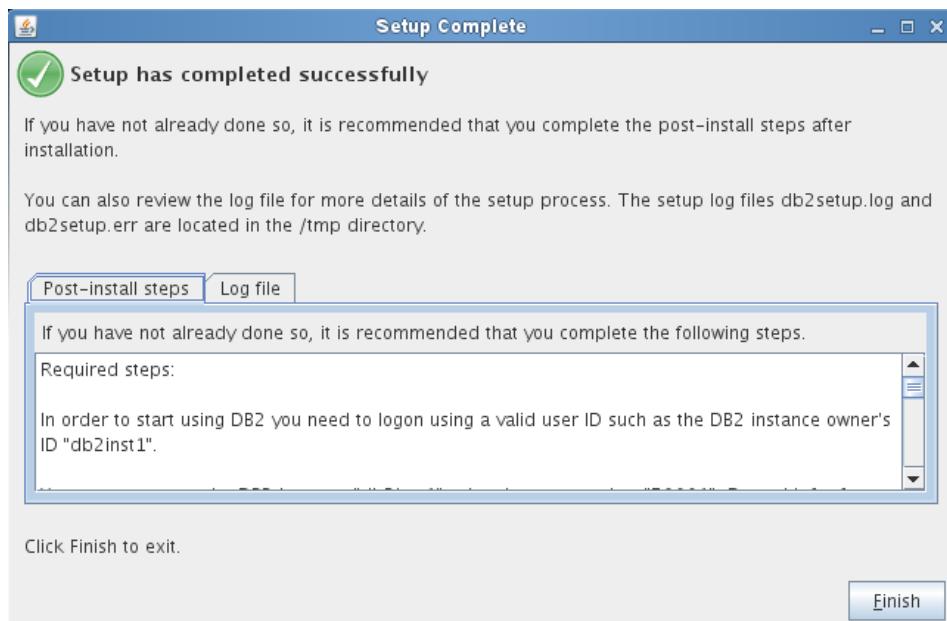


26. Select the type of notifications. In the example, “Do not set up your DB2 server to send notification at this time”.

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 FEBDB
```

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
```

- 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

- 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
```

- 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

- 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
```

- 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

- DB2 Command Line Processor

```
db2=> CONNECT RESET
```

- 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 step may be skipped. Verify the version of Installation Manager is supported by IBM Forms Experience Builder

1. Login to the IBM Forms Experience Builder file system as an administrator/root
2. Navigate to the IIM directory of the Forms Media

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

Example:

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

3. Navigate to the OS directory

WIN32	Win32
WIN64	WinX64
LINUX	Linux
LINUX 64	LinuxX64
AIX	AIX

Example:

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

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

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

5. Verify the following message is returned

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

7 WebSphere Application Server

7.1 Install

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

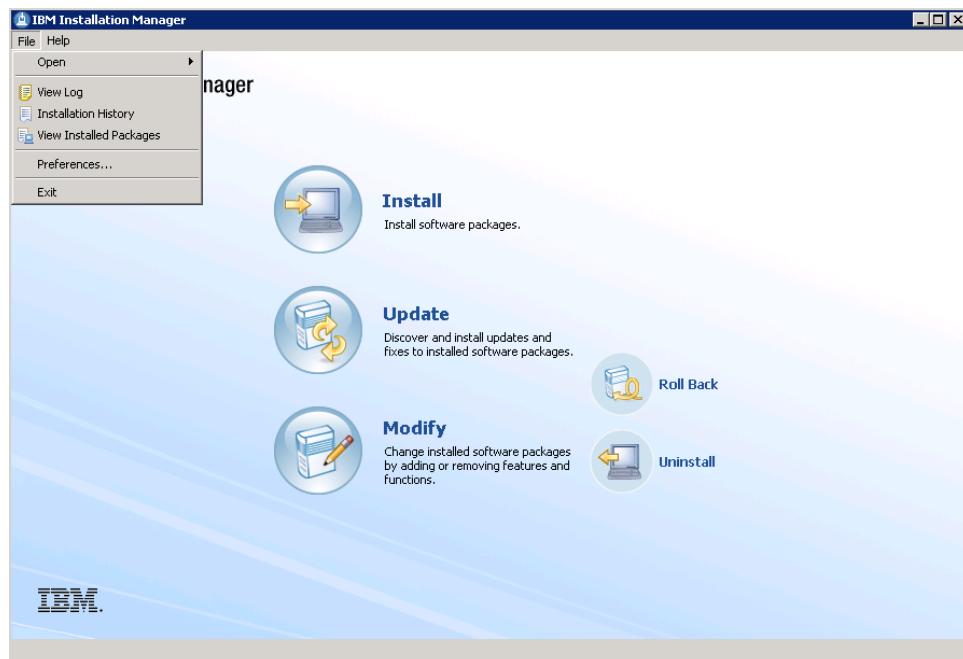
7.1.1 Graphical User Interface

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

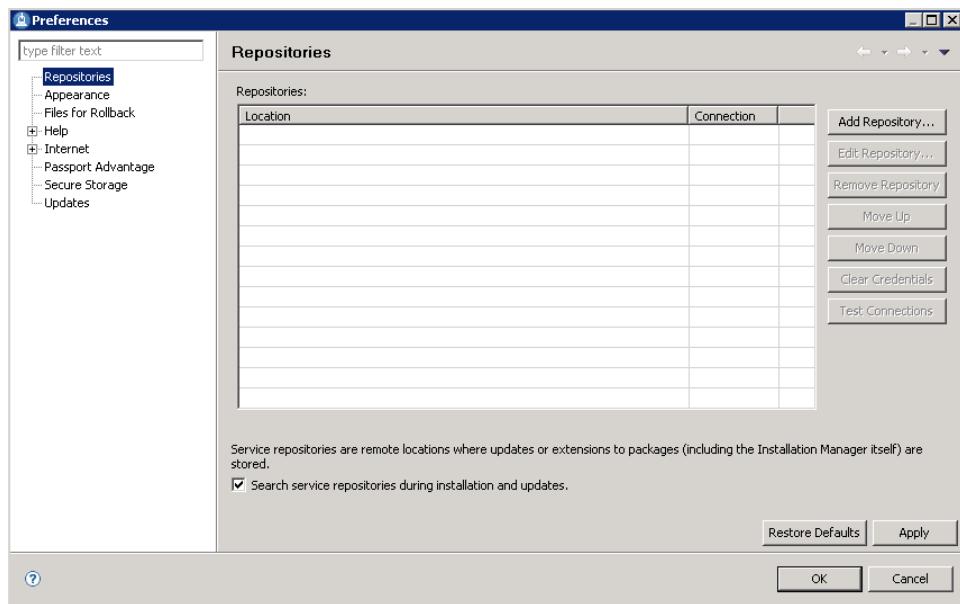
1. Login to the IBM Forms Experience Builder file system as an administrator/root
2. Run the **IBMIM** command to start the IBM Installation Manager

Example:

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



3. Click Files > Preferences...



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

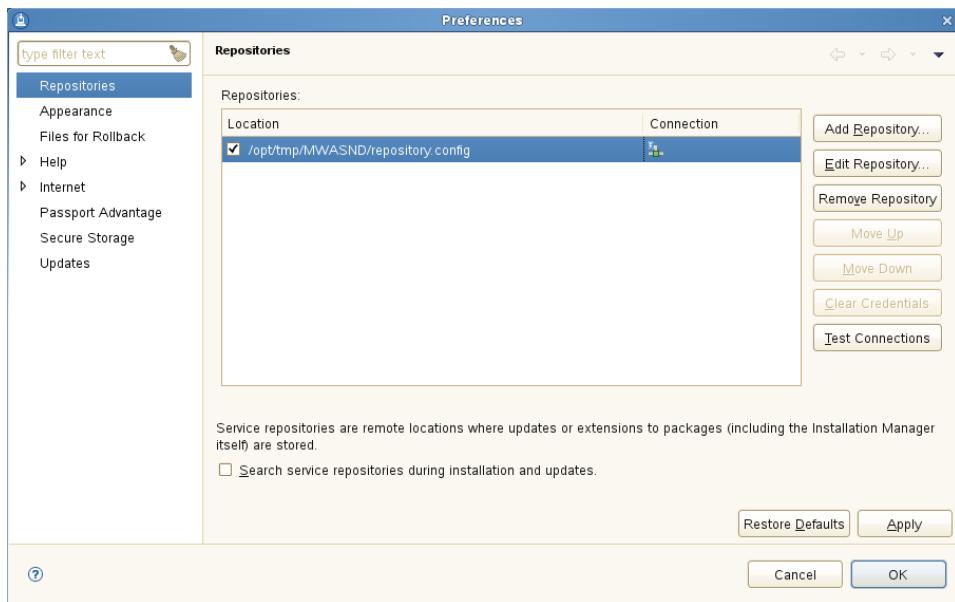


6. Browse-to/Enter the repository.config in the WebSphere Application Server media

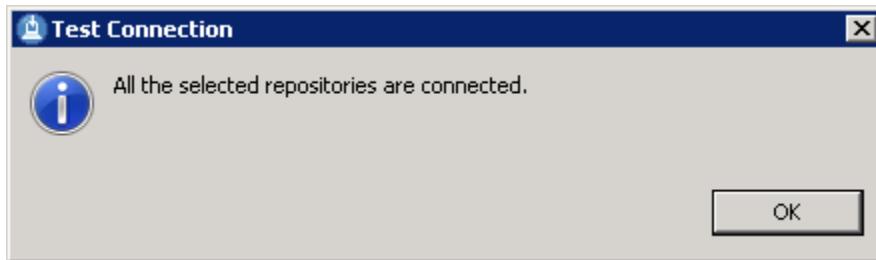
Example:

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

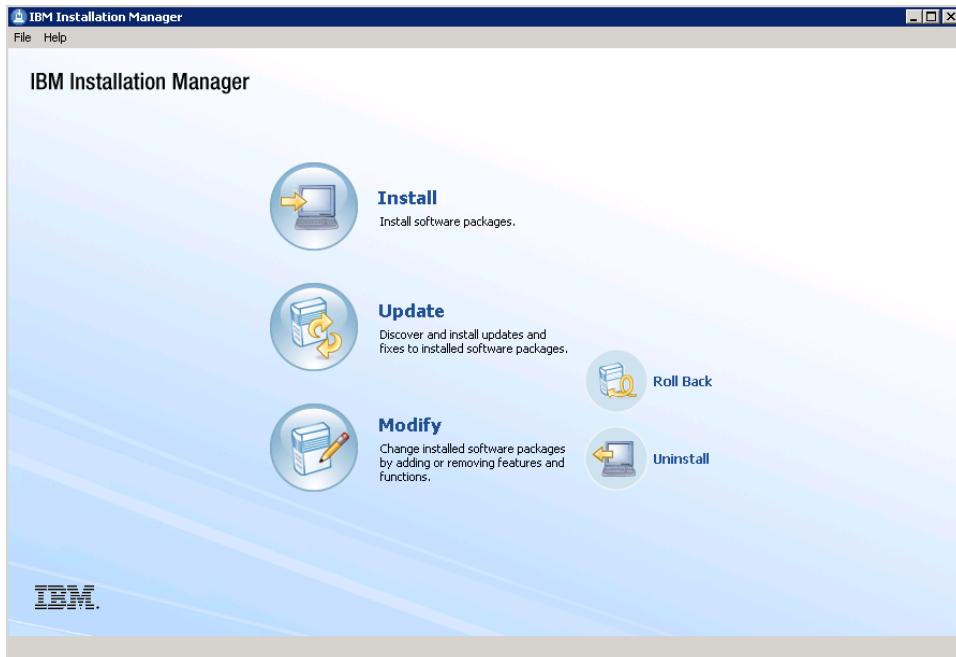
7. Click OK



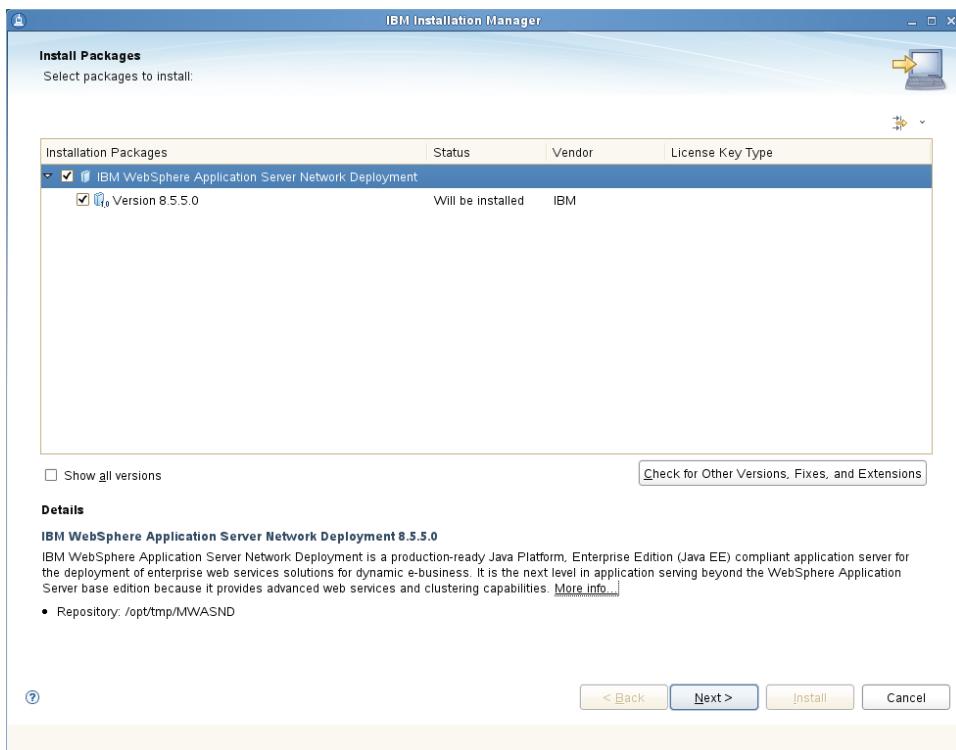
8. Click Test Connections



9. Verify the pop-up message “All the selected repositories are connected.” If the repositories can not be connected, update the repository locations and try again.
10. Click OK to close the message
11. Uncheck “Search service repositories during installation and updates.”
12. Click OK

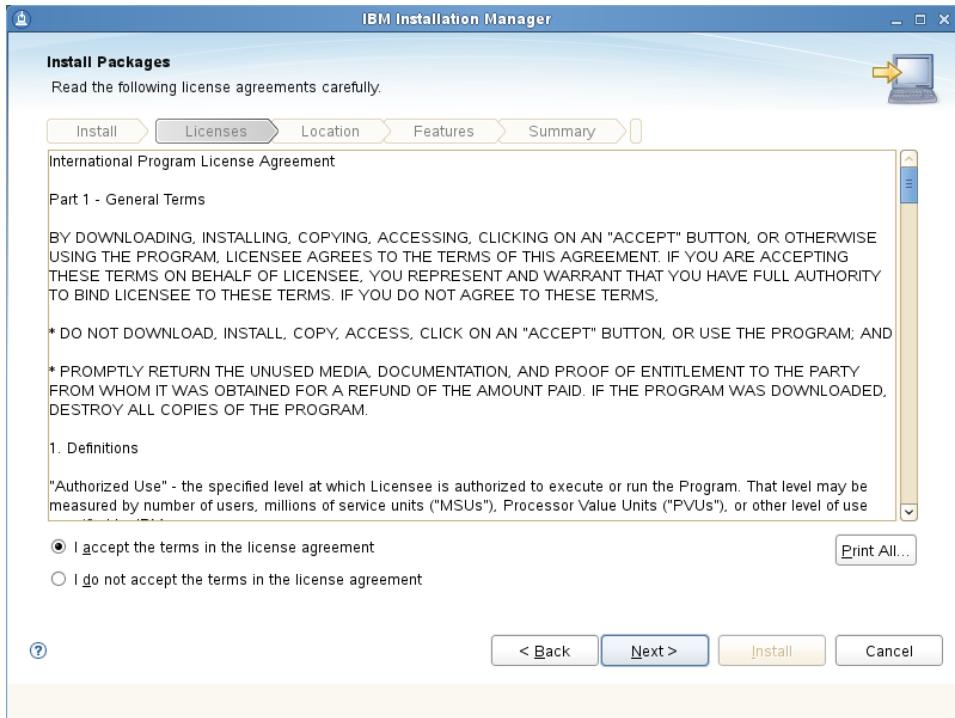


13. Click Install



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

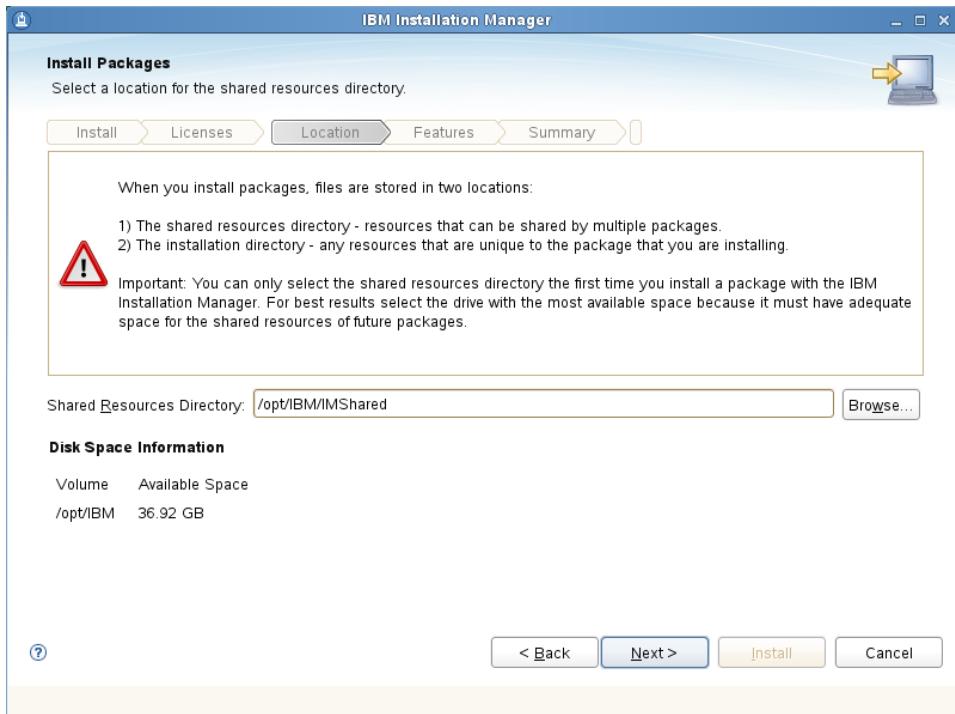
15. Click Next



16. Review the International Program License Agreement

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

18. Click Next



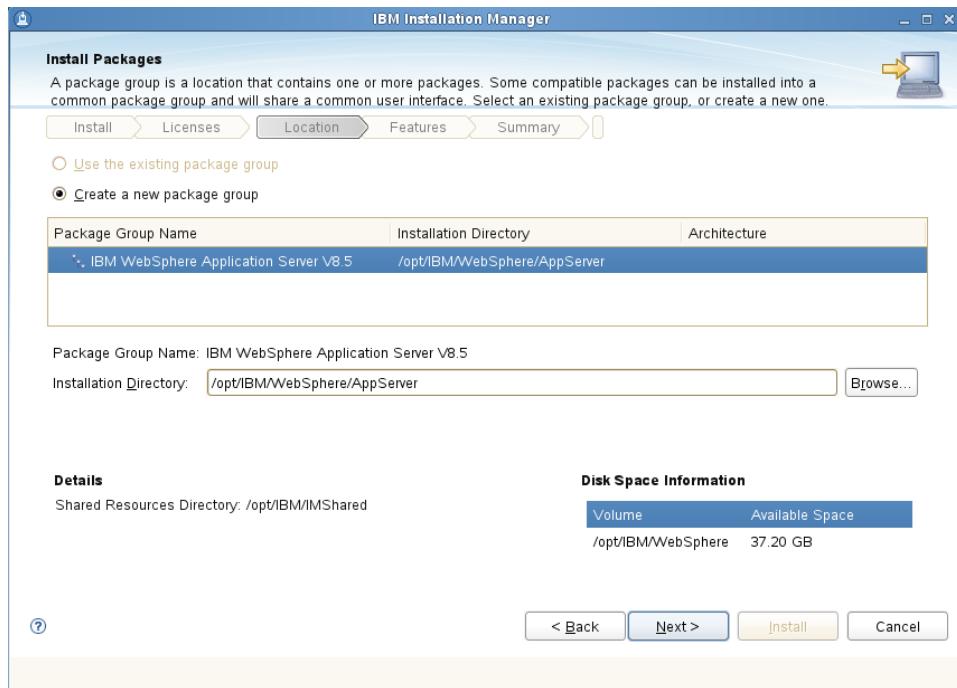
19. Browse-to/Enter the location of the Shared resource directory

SHARED_DIR = _____

Example:

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

20. Click Next



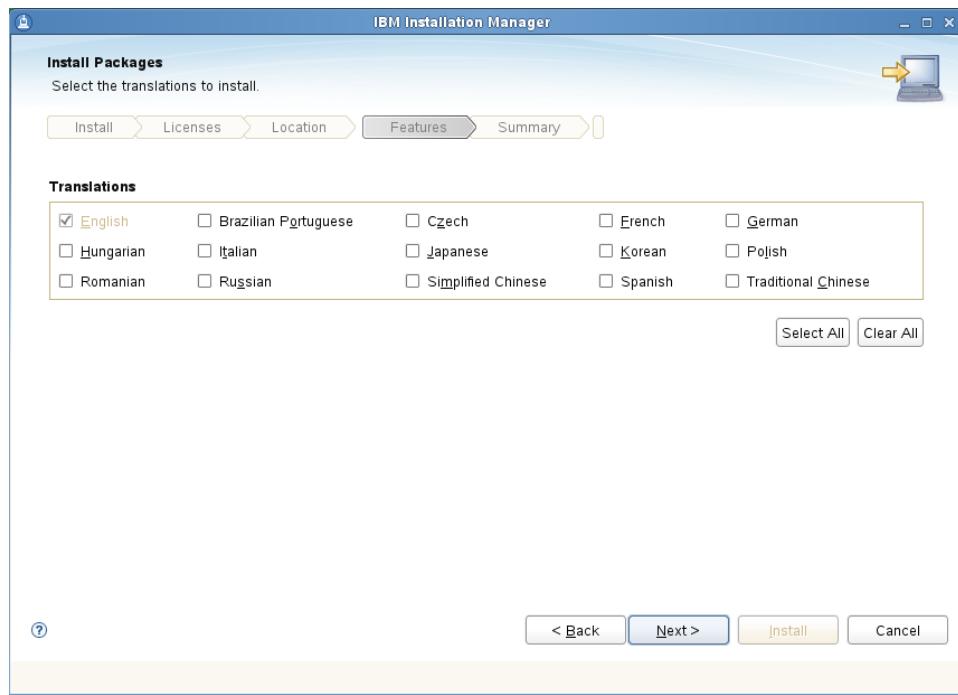
21. Under Package Group Name, click IBM WebSphere Application Server V8.5
22. Verify/Update the Installation Directory

WAS_HOME = _____

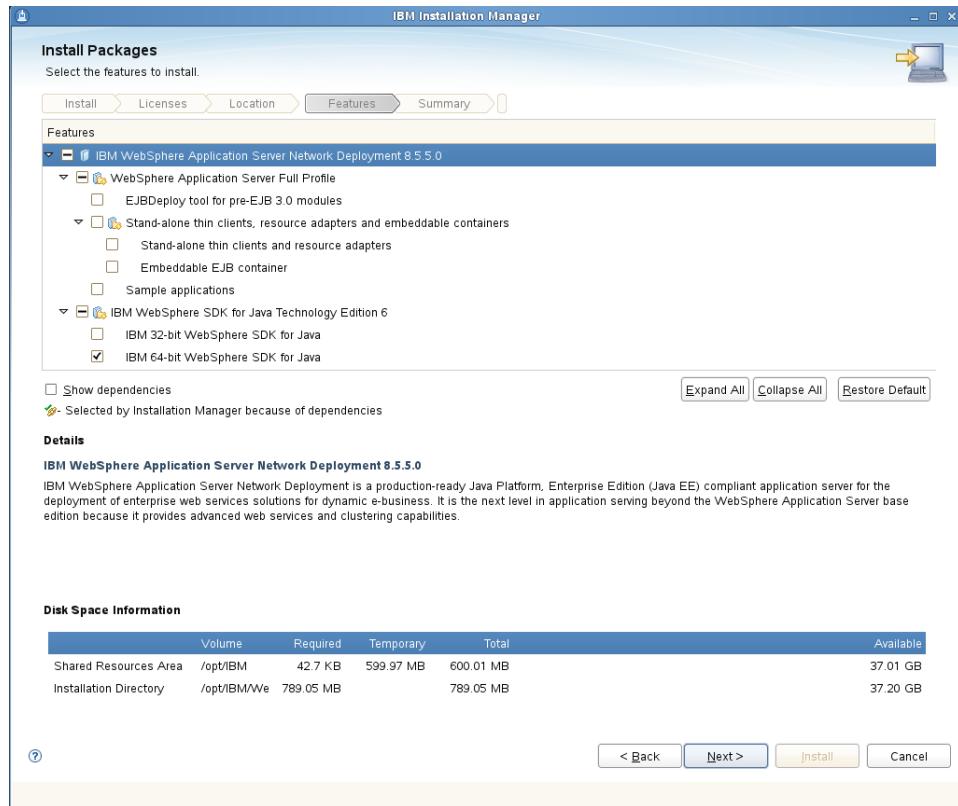
Example:

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

23. Click Next



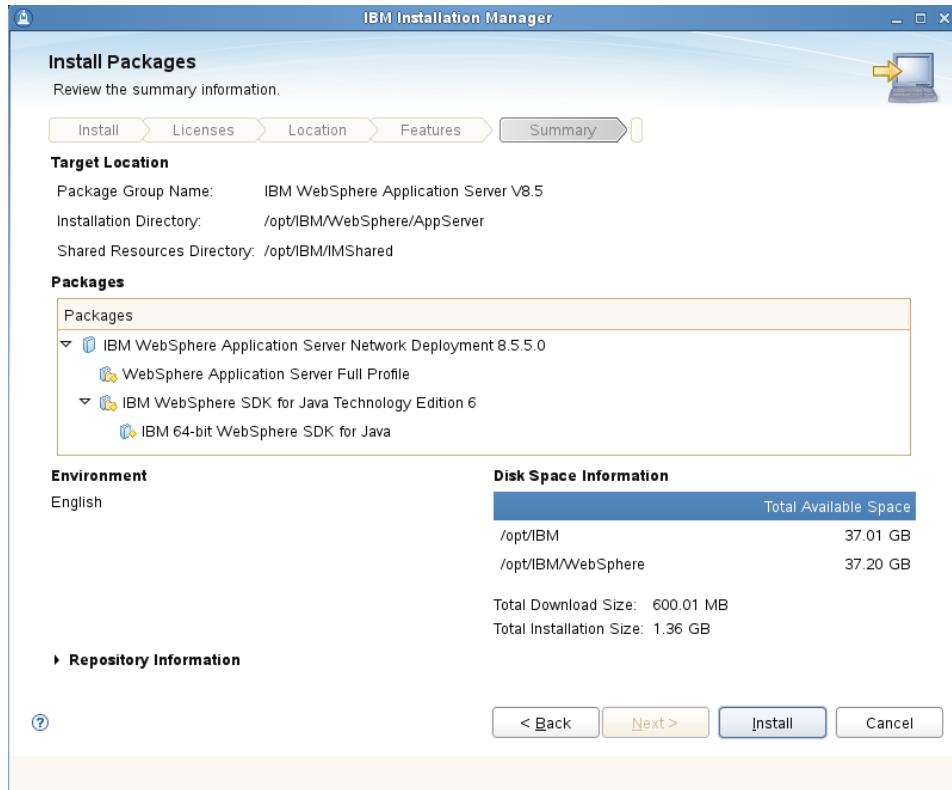
24. Click Next



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

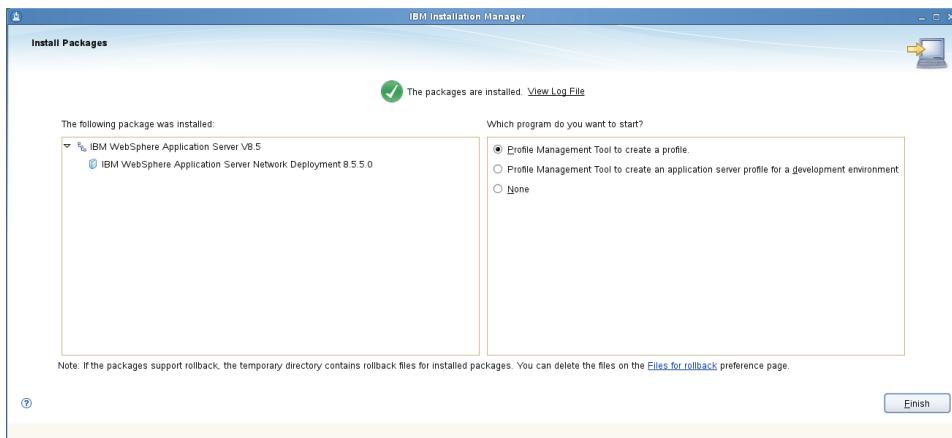
26. Verify the SDK for your specific platform bit installation is selected. In the example, “IBM 64-bit WebSphere SDK for Java” was selected.
- On a 32-bit, select “IBM 32-bit WebSphere SDK for Java
 - On a 64-bit, select “IBM 64-bit WebSphere SDK for Java

27. Click Next

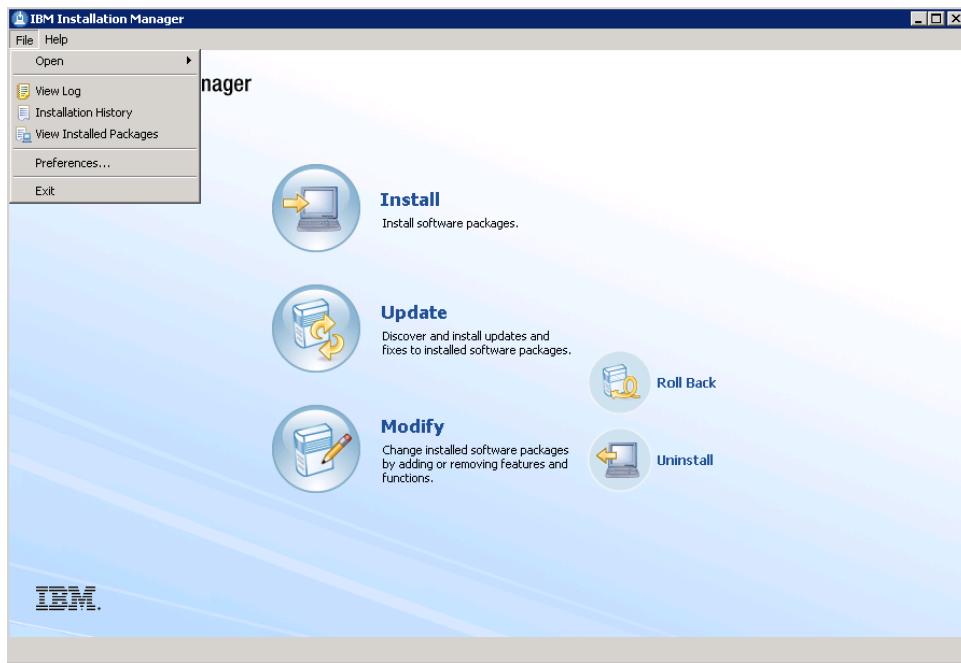


28. Review the summary information

29. Click Install



30. Verify there is a green check circle.
31. Select “None” if you want to create a profile at another time, other wise select “Profile Management Tool to create a profile”.
32. Click Finish



33. Click File
34. Click Exit

7.1.2 Command Line

1. Login to the IBM Forms Experience Builder file system as an administrator/root
2. Run the following command to install WebSphere Application Server

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

Example WINDOWS:

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

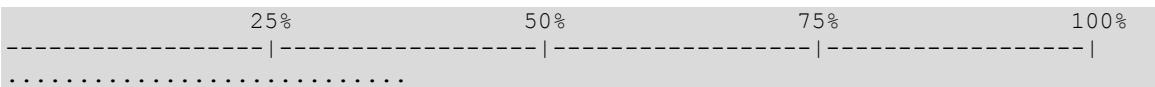
Example LINUX:

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

Example AIX:

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

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



3. Validate the Installation results

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

Example WINDOWS:

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

Example LINUX:

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

Example AIX:

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

7.2 Create Profile

Only one profile creation method is required

7.2.1 Graphical User Interface

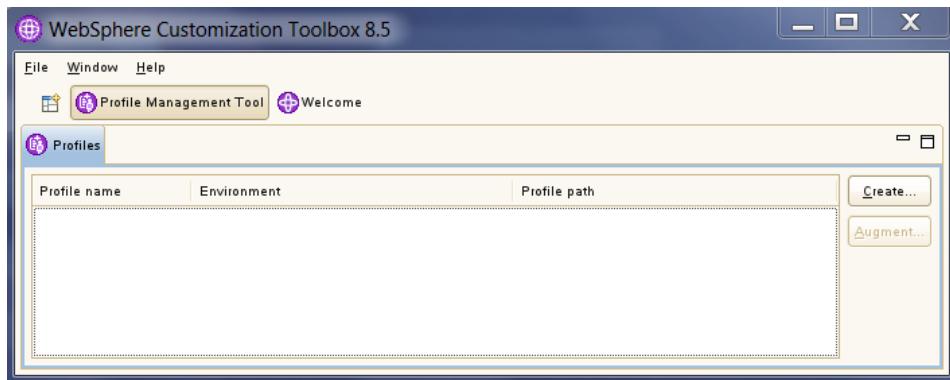
If you are using the graphical user interface to install on a unix environment, verify the unix environment is configured to display a remote graphical user interface.

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

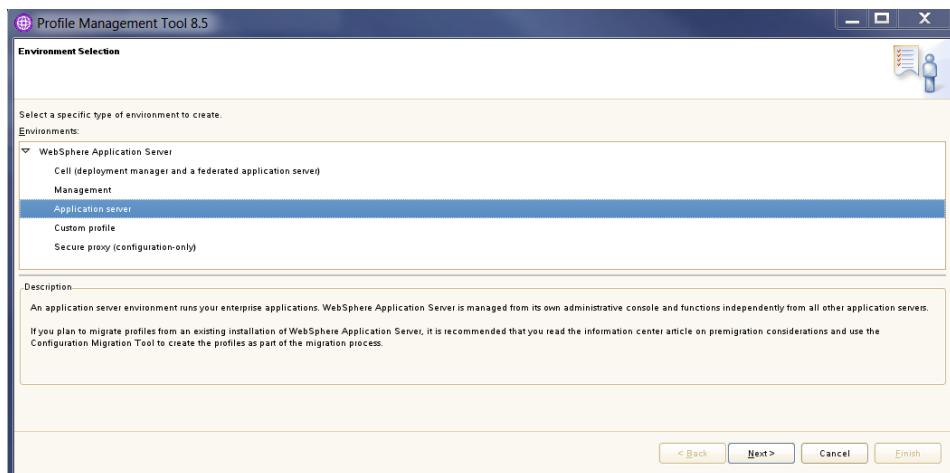
- UNIX <WAS_HOME>/bin/ProfileManagement/pmt.sh

Example:

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

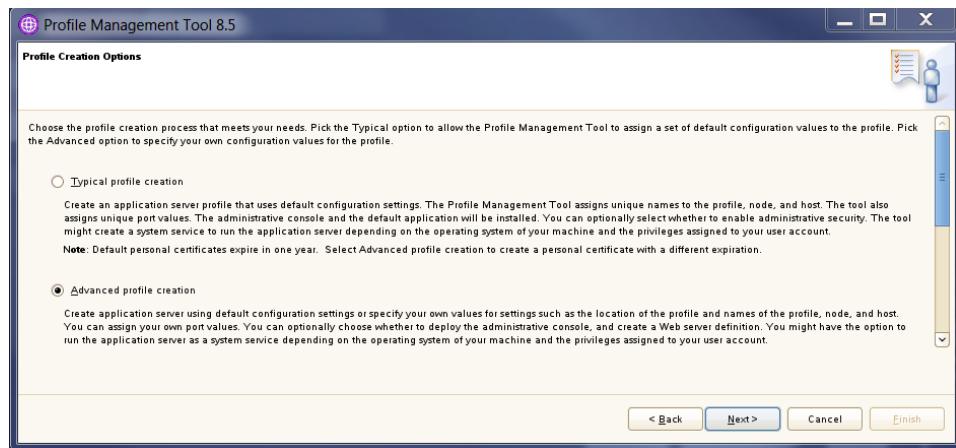


2. Click Create

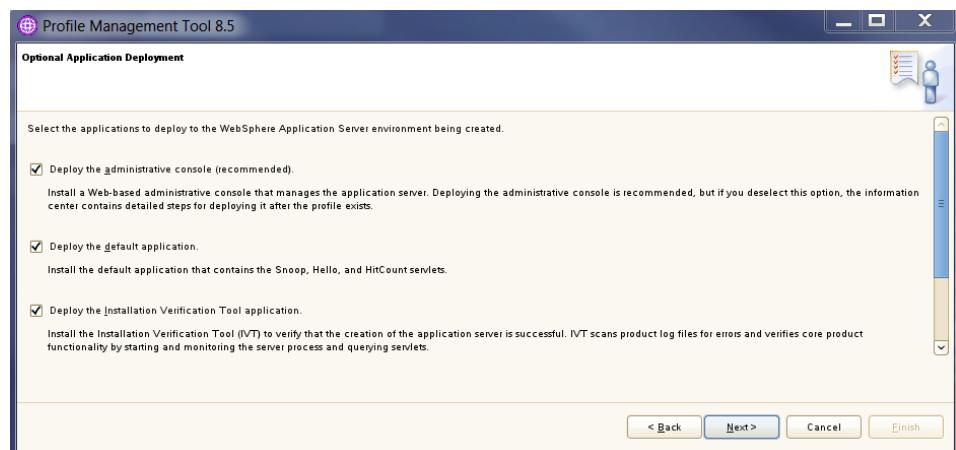


3. Select Application server

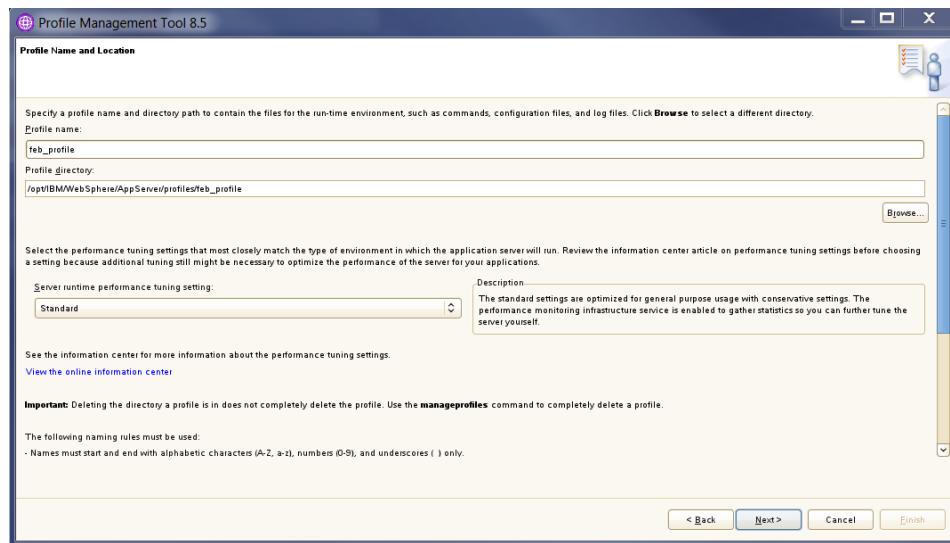
4. Click Next



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



7. Verify “Deploy the administrative console” is checked. All other options are optional. In the example, the options were left by default.
8. Click Next



9. Verify/Enter the Profile name.

Profile name: _____

Example: `feb_profile`

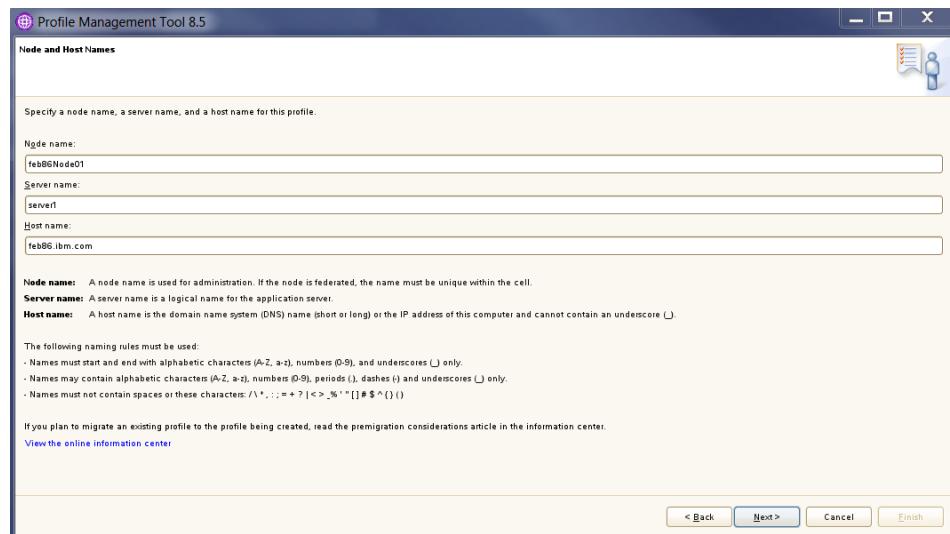
10. Verify/Enter the Profile directory.

Profile directory: _____

Example:

WIN	<code>E:\IBM\WebSphere\AppServer\profiles\feb_profile</code>
LINUX	<code>/opt/IBM/WebSphere/AppServer/profiles/feb_profile</code>
AIX	<code>/usr/IBM/WebSphere/AppServer/profiles/feb_profile</code>

11. Click Next



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

Node name: _____

Example: feb86Node01

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

Server name: _____

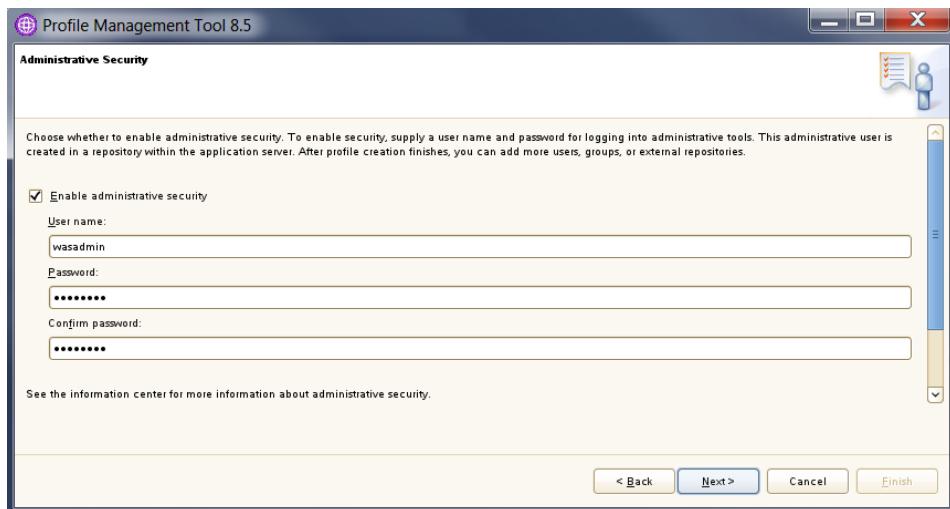
Example: server1

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

Host name: _____

Example: feb86.ibm.com

15. Click Next



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

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

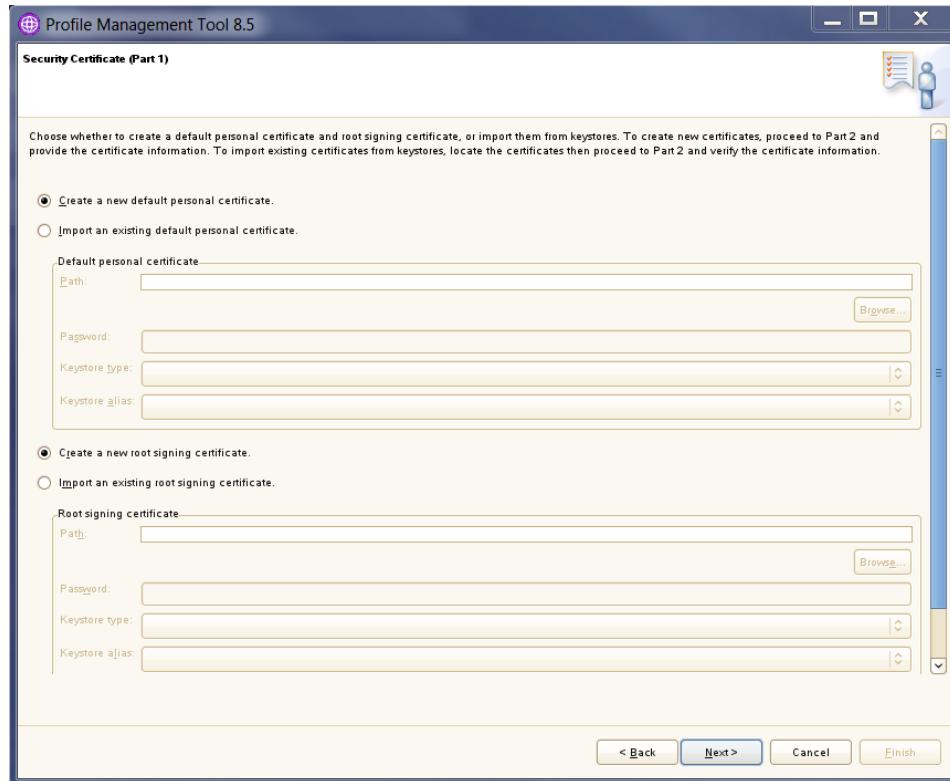
User name: _____

Example: wasadmin

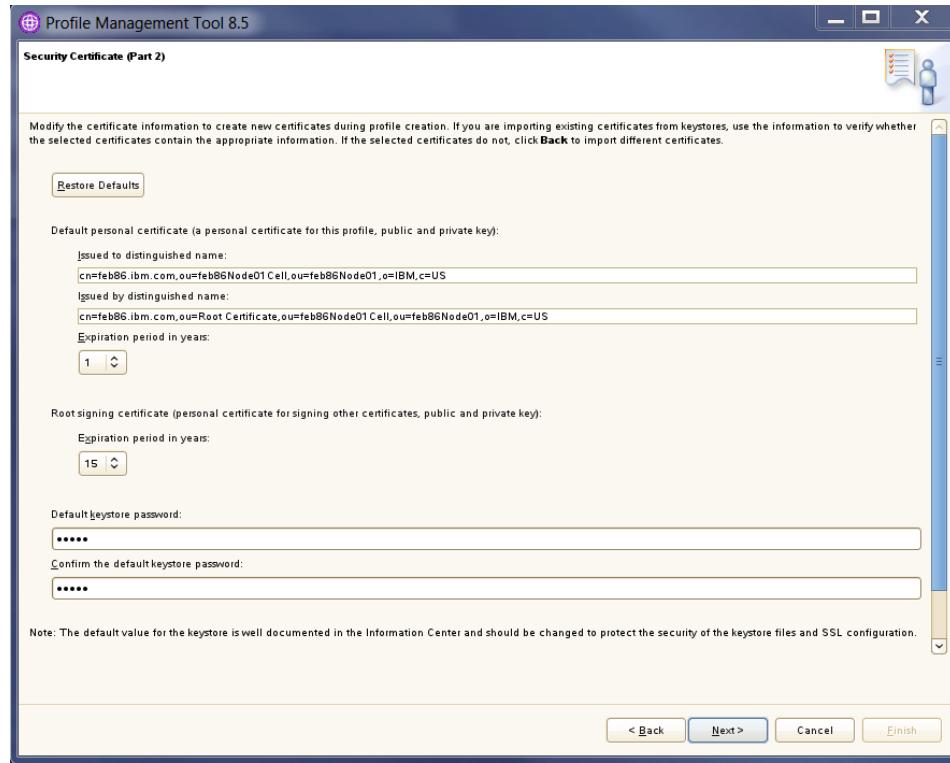
18. If “Enable administrative security” was checked, enter the password for the User name in the “Password” and “Confirm password” field.

Password: _____

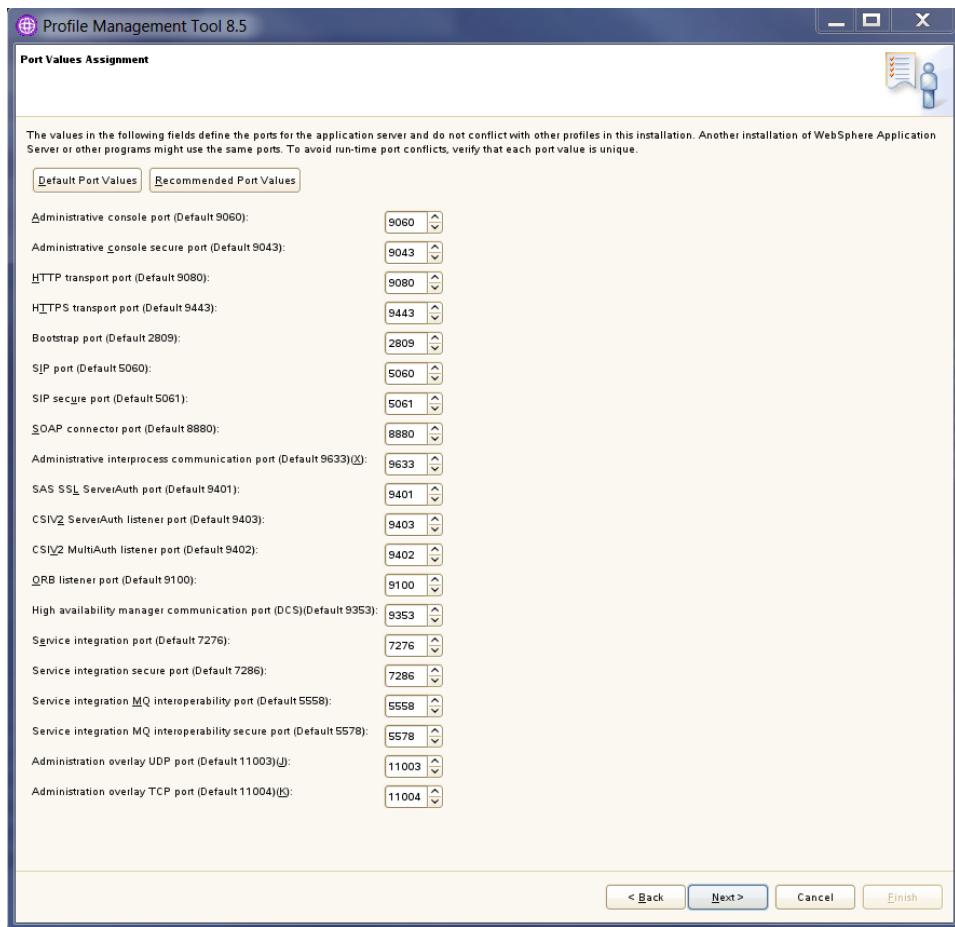
19. Click Next



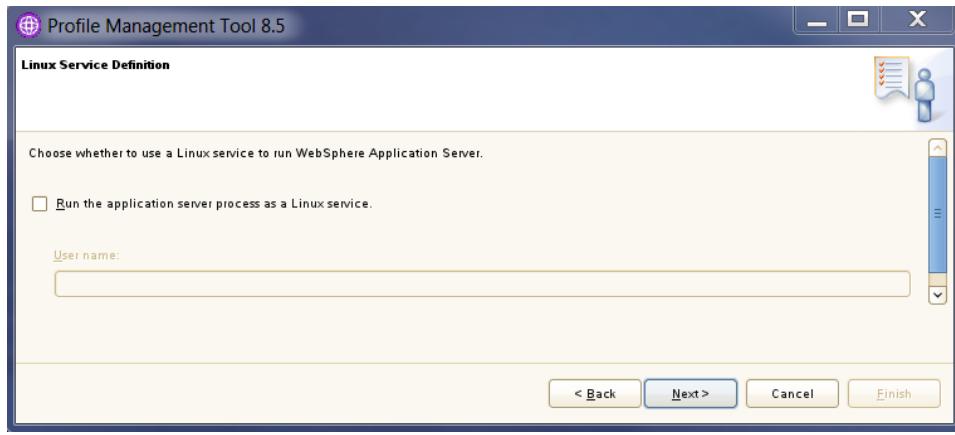
20. Signing certificates can be imported for the profile if this is a requirement.
Otherwise, Click Next



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

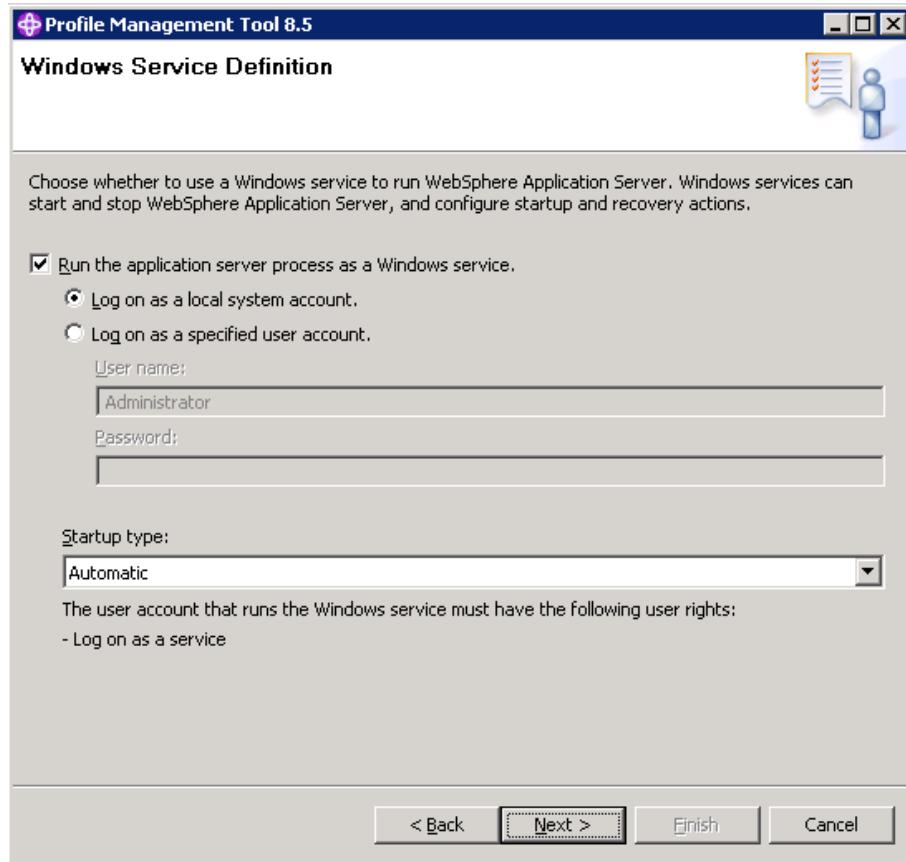


23. If there are any requirements for ports, the ports can be updated at this time.
 24. Click Next



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

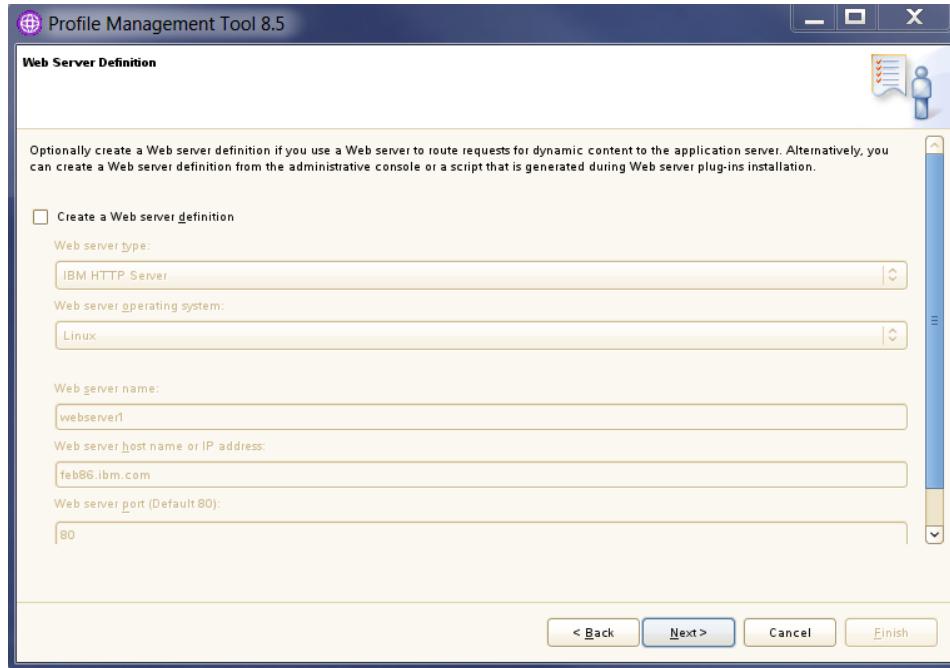
26. Click Next



27. If installing on Windows, by default the “Run the application server process as a Windows service” is checked. Leaving it checked will start the WebSphere Application Server server after a restart of the operating system. Uncheck “ Run the application server process as a Window servcice” if any of the following is met.

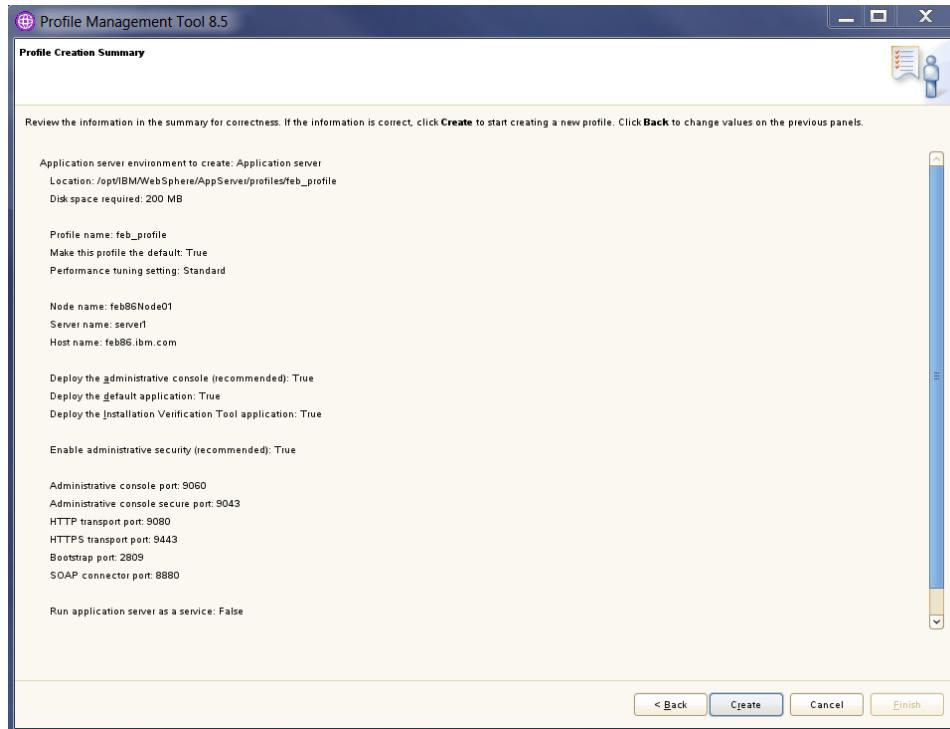
- If security is not enabled on the profile.
- If the WebSphere Application Server administrator user or password will be changed.

28. Click Next



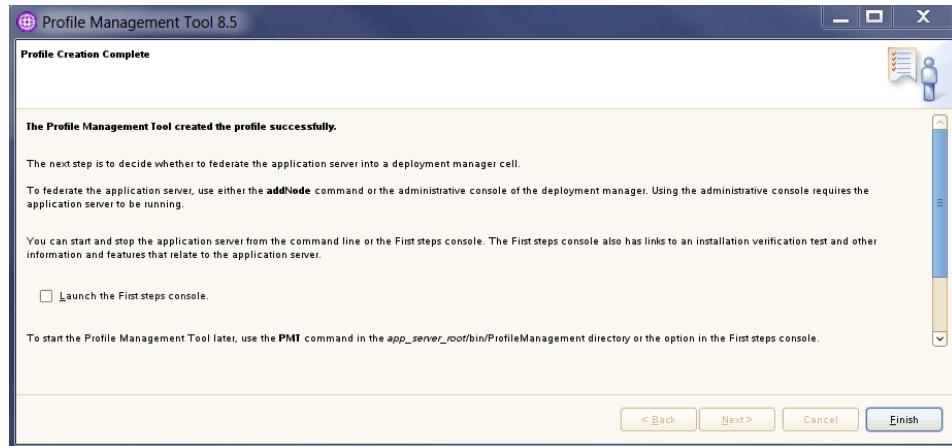
29. By default, “Create a Web server definition” is unchecked. If a webserver is already installed, checking “Create a Web server definition” can be set with the correct information. There may be other required steps needed to complete the WebServer Definition that will not be covered in this document.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

30. Click Next



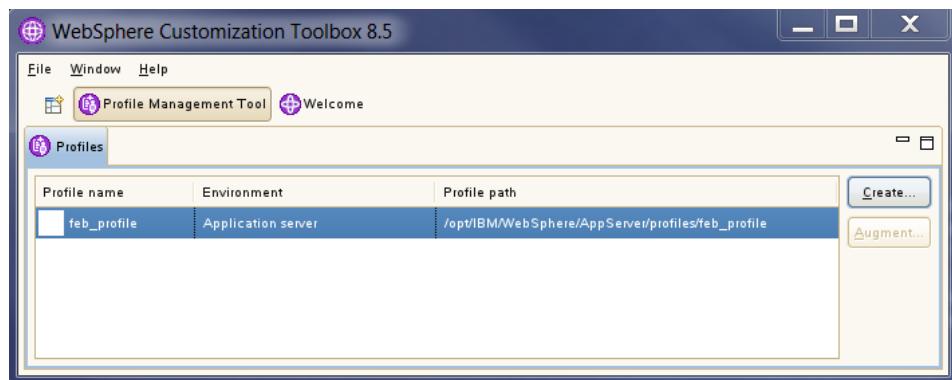
31. Review the Summary information. If anything is incorrect, click back and fix the problem.

32. If everything is correct, click Create



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

34. Click Finish



7.2.2 Command Line

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

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

NOTE: Other options can be used to customize the profile

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

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

3. Verify the results

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

8 IBM Forms Experience Builder

8.1 Install

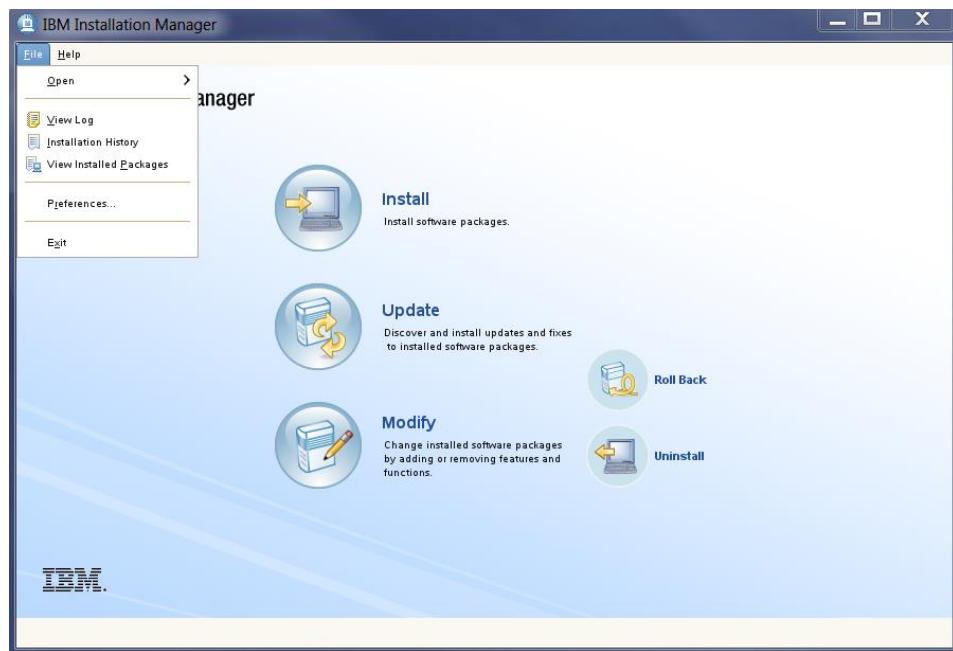
If you are using the graphical user interface to install on a UNIX environment, verify the UNIX environment is configured to display a remote graphical user interface.

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

<IIM>/eclipse/IBMIM

Example:

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



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



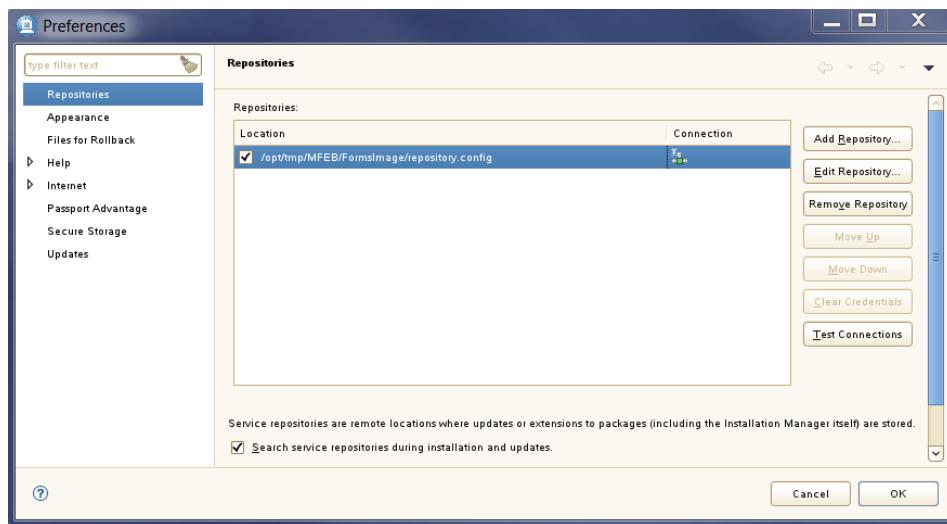
6. Enter/Browse to the repository.config of the IBM Forms Experience Builder located in the FormsImage of the media files

`<MFEB>/FormsImage/repository.config`

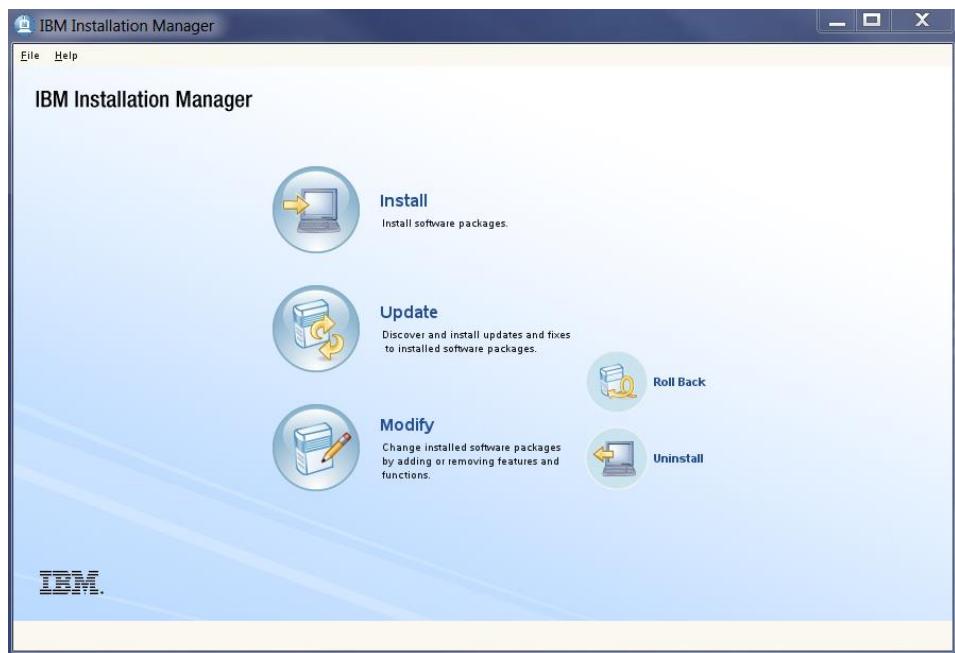
Example

WIN	<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>

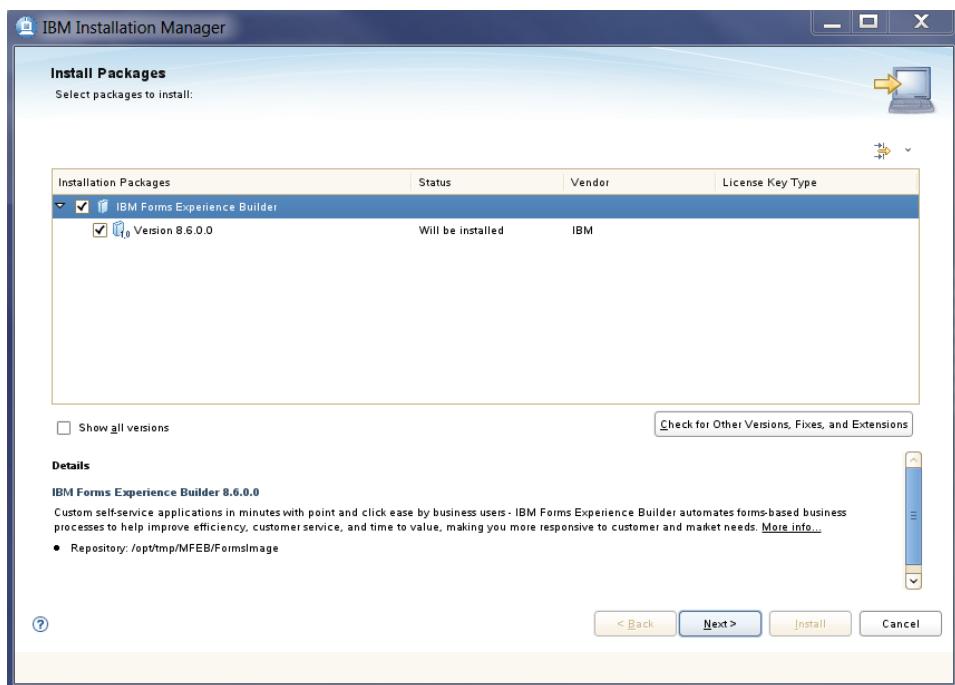
7. Click OK



8. Click OK



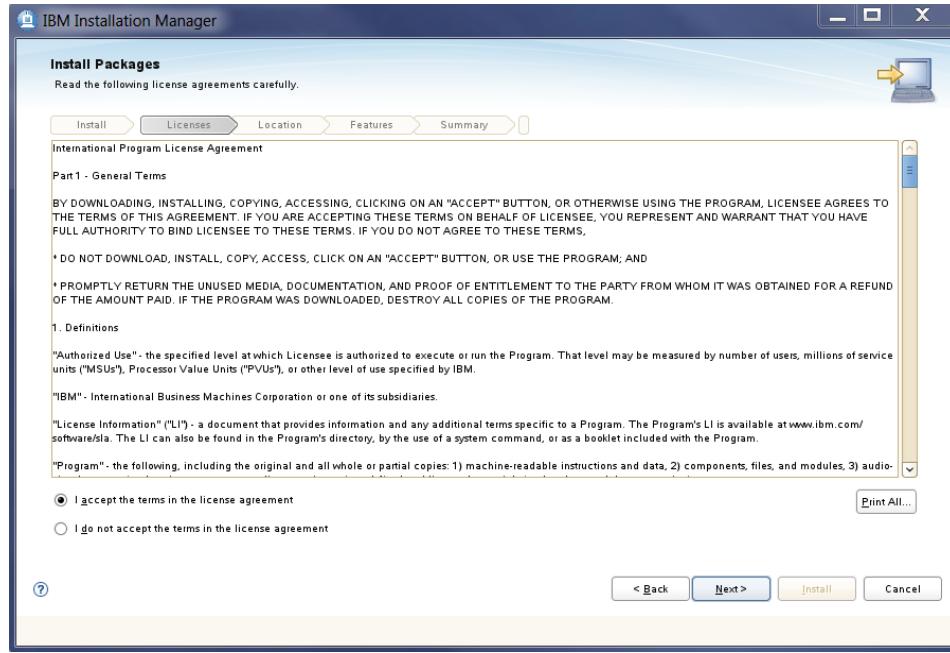
9. Click Install



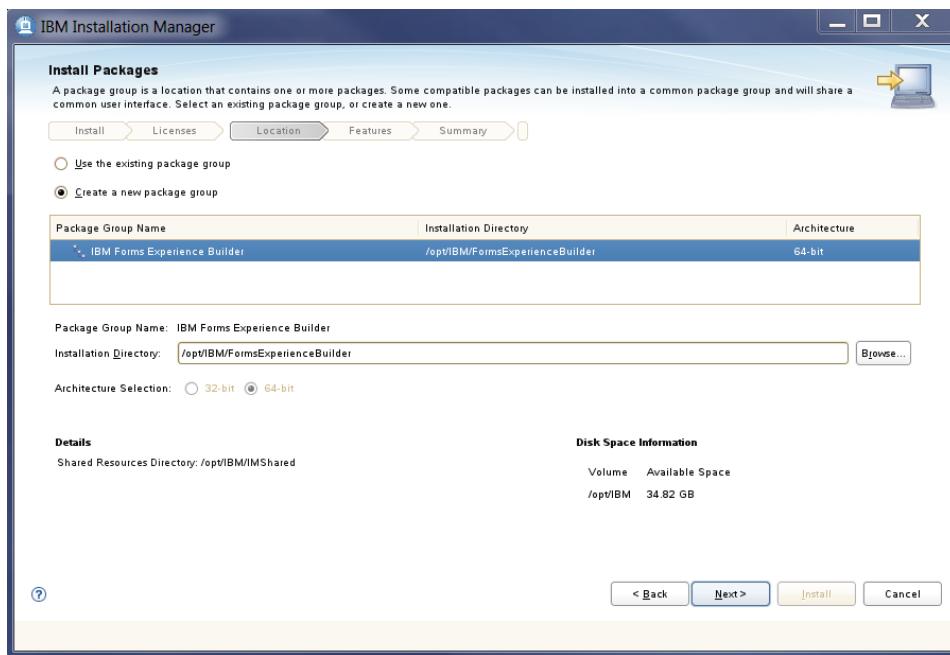
10. Under Installation Packages, check the following

IBM Forms Experience Builder
Version 8.6.0.0

11. Click Next



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



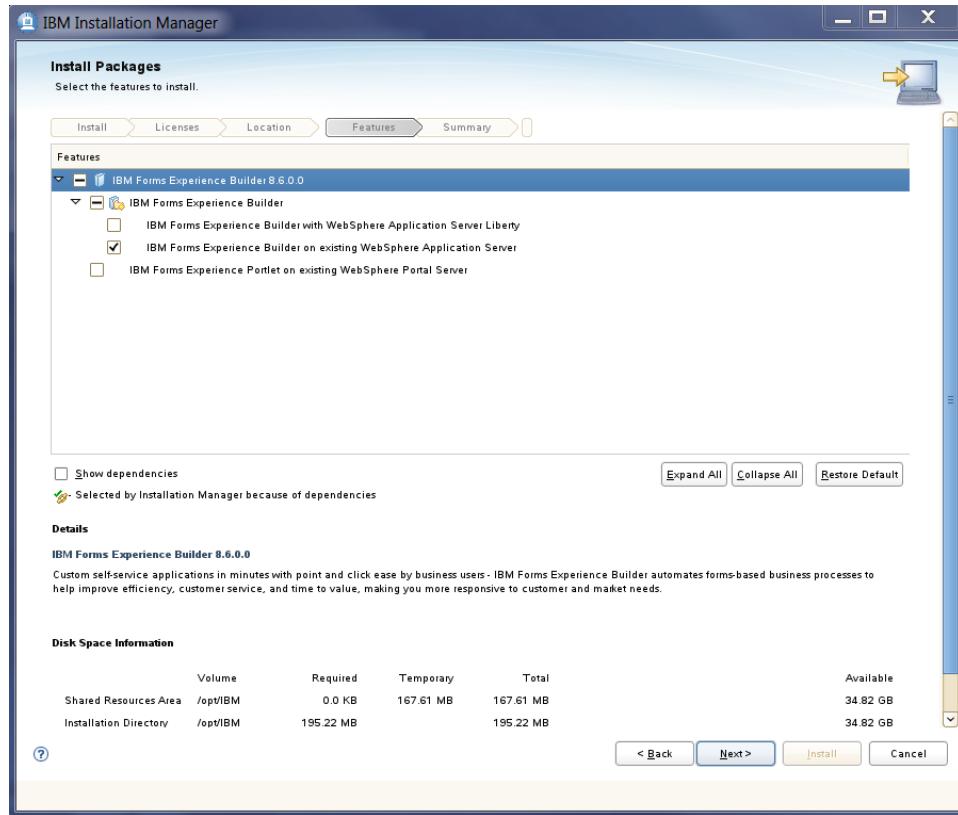
15. Under “Package Group Name”, select “IBM Forms Experience Builder”
16. Enter/Verify the installation directory for the IBM Forms Experience Builder

Installation Directory: _____

Example:

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

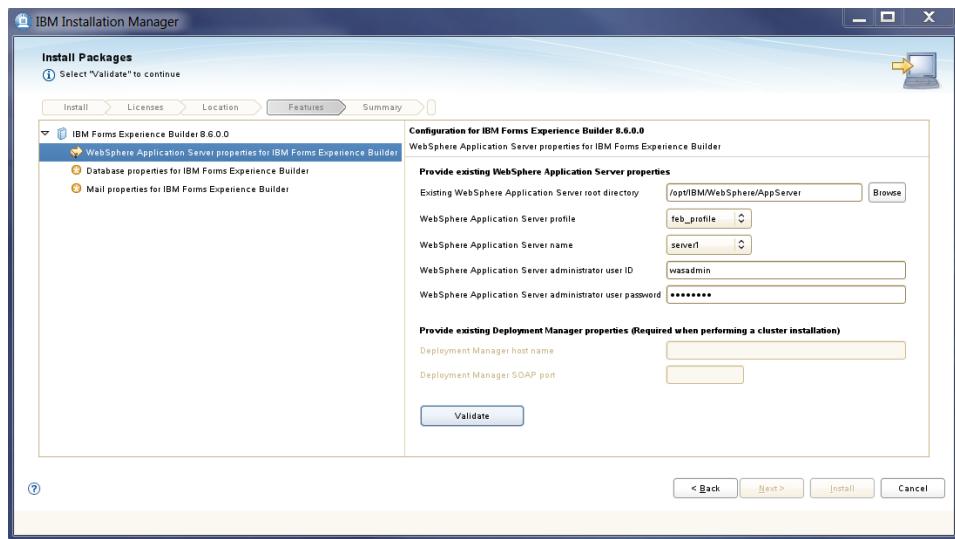
17. Click Next



18. Check/Verify the following Features

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

19. Click Next



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

Example:

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

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

Example: feb_profile

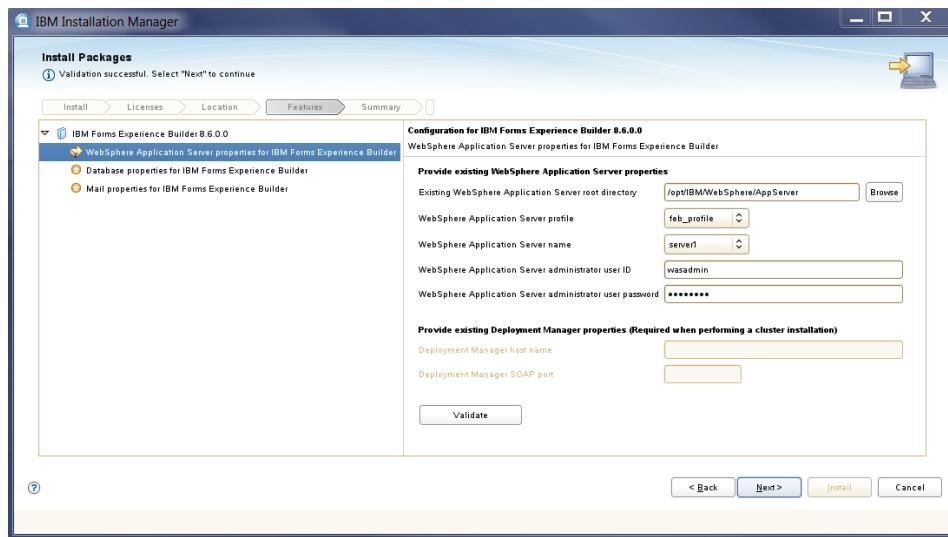
22. Select the WebSphere Application Server name. This was created during the profile creation

Example: server1

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

Example: wasadmin/XXXX

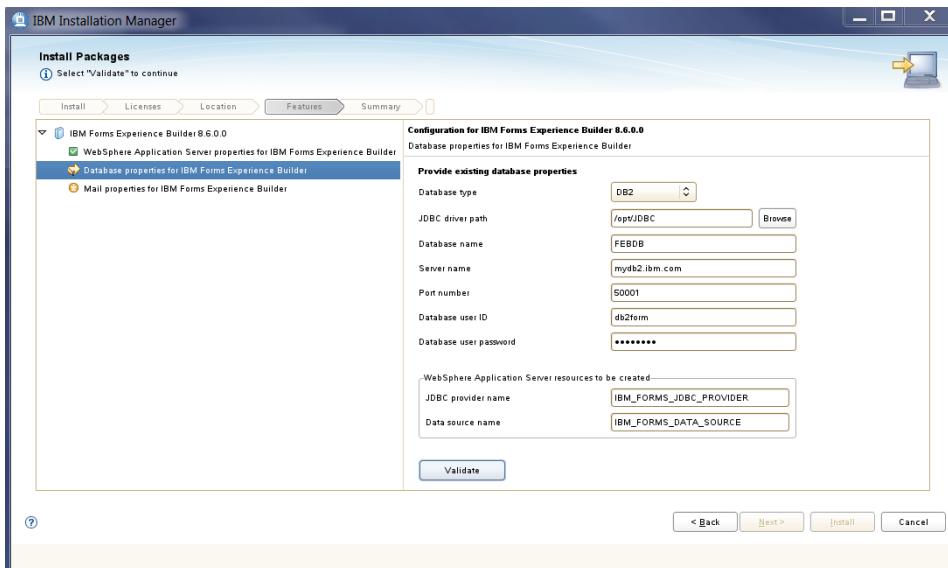
24. Click Validate



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

Validation successful. Select “Next” to continue

26. Click Next



27. Database type, select DB2

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

Example:

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

29. Database name, enter the database name

Example: FEBDB

30. Server name, enter the DB2 database server name

Example: mydb2.ibm.com

31. Port number, enter the DB2 Instance tcip port. By default it is 50000.

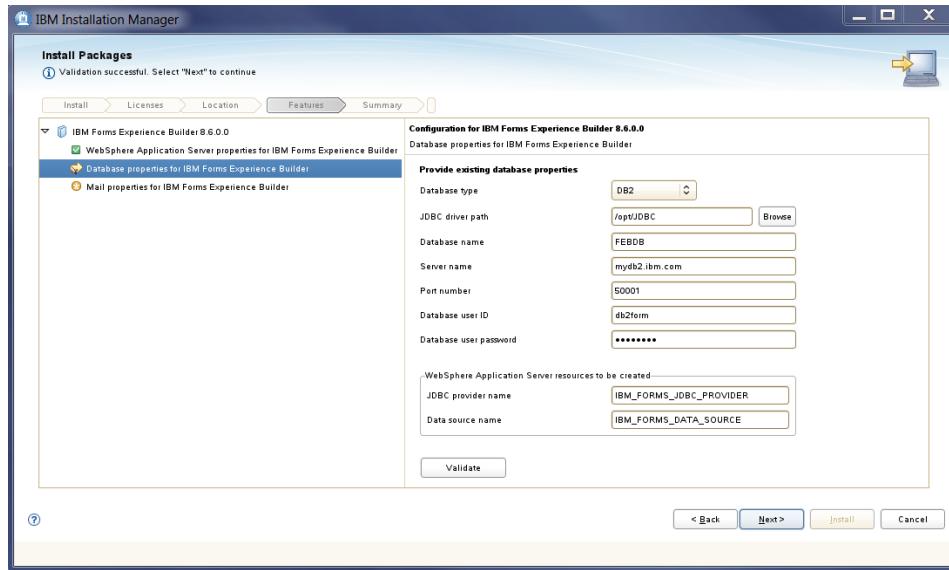
Example: 50001

32. Database user ID, enter the DB2 Database user

Example: db2form

33. Database user password, enter the DB2 database password

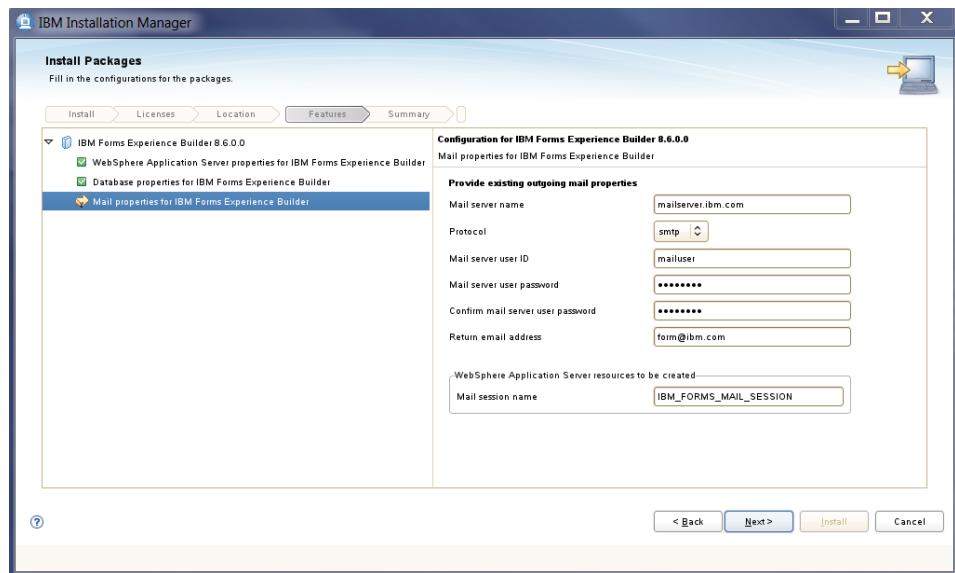
34. Click Validate



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

Validation successful. Select "Next" to continue

36. Click Next



37. Enter the Mail server hostname

Example: mailserver.ibm.com

38. Select the mail server protocol

Example: smtp

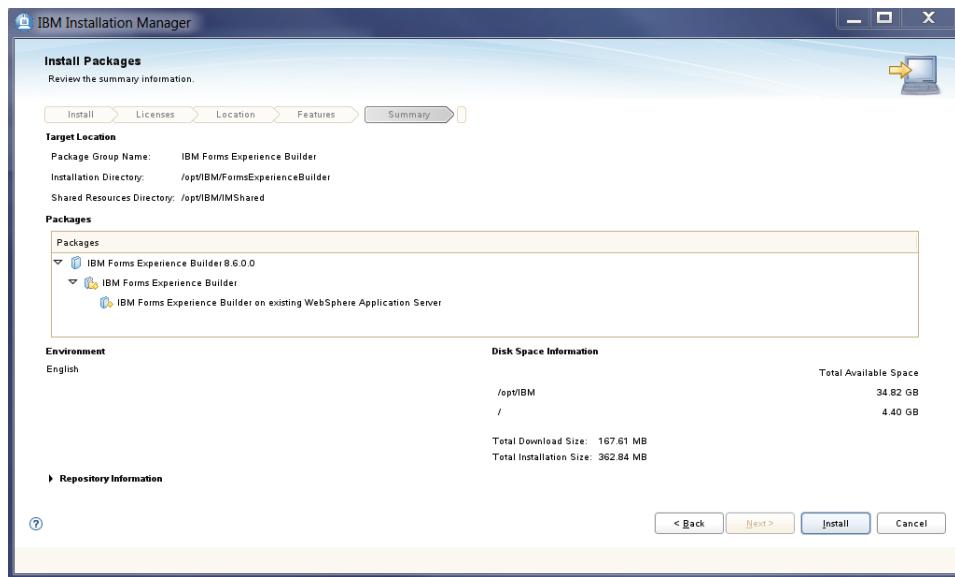
39. Enter the Mail server user ID and password

Example: mailuser/XXXX

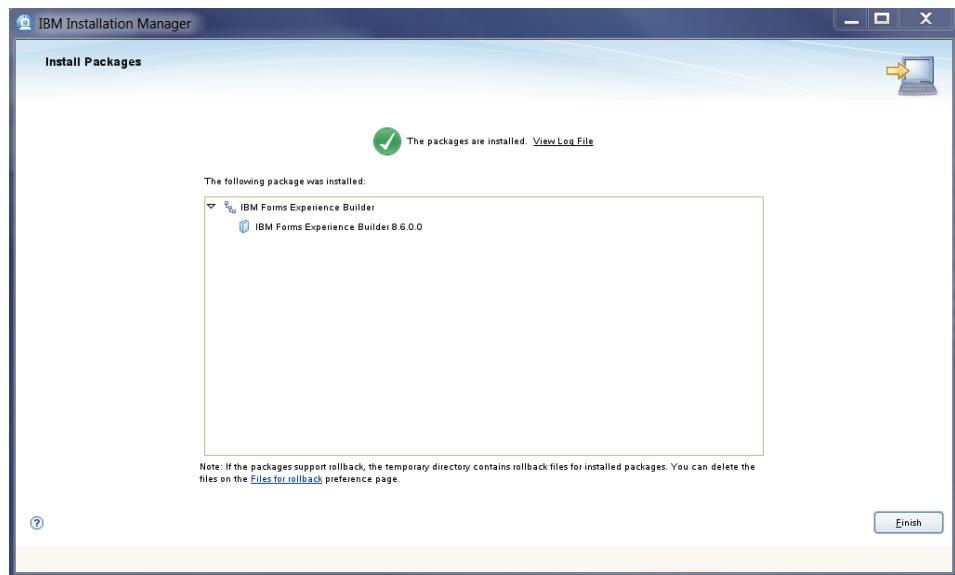
40. Enter the “Return email address”

Example: form@us.ibm.com

41. Click Next



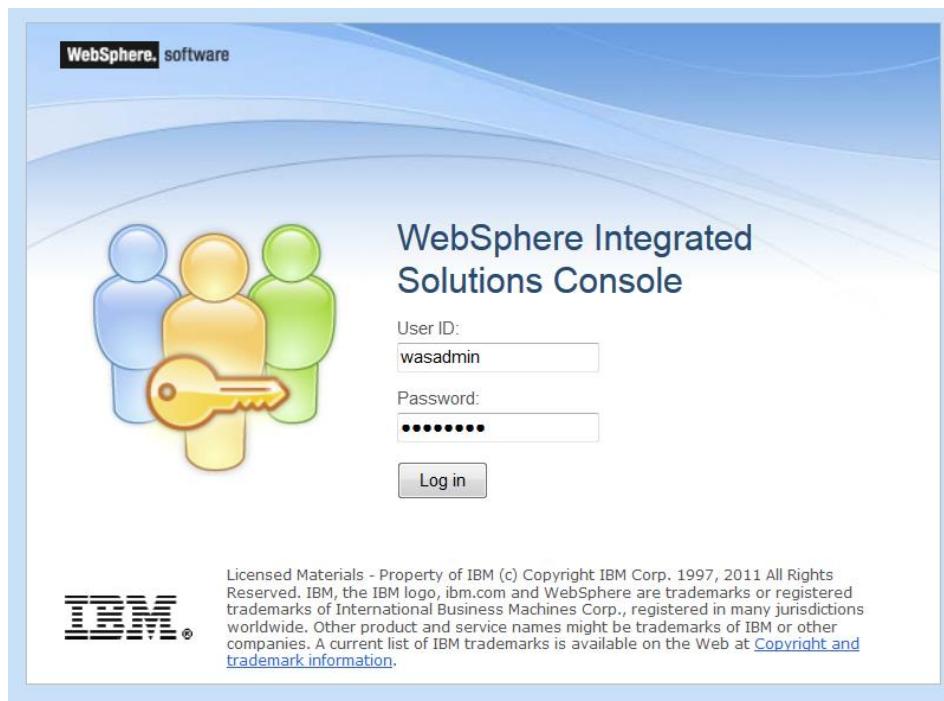
42. Click Install



43. Click Finish

8.2 Configuration

8.2.1 Forms Experience Builder AdminAlias

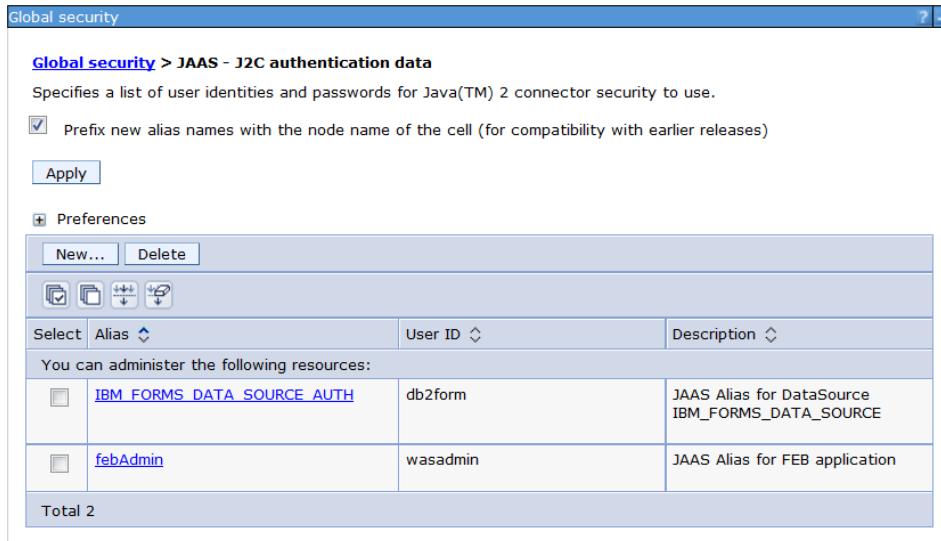


1. Open a browser and set the url to the WebSphere Application Server console
`https://<HOSTNAME>:<PORT>/ibm/console`

Example:

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

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



- 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

- 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

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

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

8.2.3 Service Catalog

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

`<FEB_DEFAULT>/ServiceCatalog`

Example:

WIN	<code>C:\ibm\Forms\ServiceCatalog</code>
UNIX	<code>/opt/ibm/Forms/ServiceCatalog</code>

3. Create a “1” directory located in the ServiceCatalog directory

`<FEB_DEFAULT>/ServiceCatalog/1`

Example:

WIN	<code>C:\ibm\Forms\ServiceCatalog\1</code>
UNIX	<code>/opt/ibm/Forms/ServiceCatalog\1</code>

8.3 Post Installation – Browser

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

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

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

Example:

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

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

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

Click on [Setup](#) to start the setup process.

IBM Forms Experience Builder Setup

There are two phases that need to be completed in order for IBM Forms Experience Builder to be setup.

Phase 1: Basic Environment Setup

Step 1: Data Source

The data source has been provided and configured.

Step 2: Database Tables

The database tables have not been created.
Click on the Fix button to begin creating the tables. This may take some time.

[Fix](#)

Phase 2: Secured Environment Setup

Step 1: Mail Session

The status of the mail session has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.

Step 2: Application Dependencies

The status of the applications has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.

3. Click Fix

IBM Forms Experience Builder Setup

There are two phases that need to be completed in order for IBM Forms Experience Builder to be setup.

Phase 1: Basic Environment Setup

Step 1: Data Source

The data source has been provided and configured.

Step 2: Database Tables

The database tables are up-to-date.

Phase 1 no longer has any errors. To proceed to phase 2, you must log in as a user that has been assigned to the AdministrativeUsers role.
Click on the button to proceed.

[Continue to Secured Setup](#)

Phase 2: Secured Environment Setup

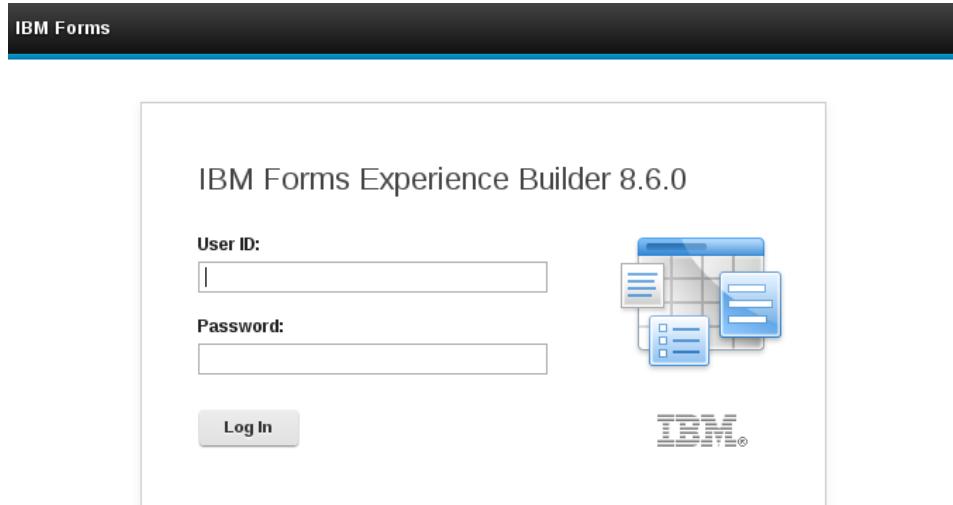
Step 1: Mail Session

The status of the mail session has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.

Step 2: Application Dependencies

The status of the applications has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.

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



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

The image shows the setup screen for IBM Forms Experience Builder. It starts with a header "IBM Forms Experience Builder Setup". Below that is a note: "There are two phases that need to be completed in order for IBM Forms Experience Builder to be setup." The first phase is "Phase 1: Basic Environment Setup", which contains two steps: "Step 1: Data Source" (with a green checkmark indicating success) and "Step 2: Database Tables" (with a green checkmark indicating success). The second phase is "Phase 2: Secured Environment Setup", which contains two steps: "Step 1: Mail Session" (with a green checkmark indicating success) and "Step 2: Application Dependencies" (with a green checkmark indicating success). At the bottom is a "Continue to Manager" button.

6. Click “Continue to Manager”

8.4 Post Installation – Database

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 FEBDB
```

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
```

o 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
```

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

o 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
```

o 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
```

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

o 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
```

o 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 (Optional)

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

9.1 *Install*

1. Login to the IBM HTTP Server file system
2. Run the following command to install IBM HTTP Server

```
<IIM_HOME>/eclipse/tools/imcl install com.ibm.websphere.IHS.v85_8.5.5 -  
silent -acceptLicense -installationDirectory <IHS_HOME> -repositories  
<MWASSUPP>/repository.config -properties  
user.ihc.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.ihc.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.ihc.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.ihc.httpPort=80 -sharedResourcesDirectory  
/usr/IBM/IMShared -log /usr/IBM/IHS_Install.log
```

3. Verify the installed message

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

4. Run the following command to install WebSphere Plugin

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

5. Verify the installed message

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

6. Run the following command to install WebSphere Customization Tool

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

7. Verify the installed message

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

Example: WINDOWS

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

Example: LINUX

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

Example: AIX

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

9.2 Plugin Script

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

9.2.1 Windows

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

WIN F:\tmp\webserver.rsp

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

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

Example: WINDOW

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

5. Run the following command to create the Plugin Script

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

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

6. Verify the response

```
Importing definition location...  
  
Definition location successfully imported  
  
Launching tool pct ...  
  
Tool execution completed successfully.
```

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

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

Example:

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

8. Login to the IBM Forms Experience Builder file system

9. Start the IBM Forms Experience Builder

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

Example:

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

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

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

11. Run configurewebserver1.bat

9.2.2 UNIX

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

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

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

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

Example: LINUX

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

Example: AIX

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

5. Run the following command to create the Plugin Script

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

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

6. Verify the response

```
Importing definition location...
```

```
Definition location successfully imported
```

```
Launching tool pct ...
```

```
Tool execution completed successfully.
```

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

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

Example: LINUX

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

Example: AIX

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

8. Login to the IBM Forms Experience Builder file system

9. Start the IBM Forms Experience Builder

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

Example: LINUX

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

Example: AIX

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

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

Example:

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

11. Run the following command to execute the script

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

12. Verify the results

Target mapping is updated for the application query.

Start saving the configuration.

Configuration save is complete.

9.3 Generate/Propagate Plugin

1. Login to the WebSphere Application Server console

The screenshot shows the WebSphere software interface. The left sidebar has a tree view with nodes like 'Welcome', 'Guided Activities', 'Servers' (selected), 'Server Types' (with options 'WebSphere application servers', 'WebSphere MQ servers', and 'Web servers'), 'Applications', 'Services', 'Resources', 'Security', 'Environment', 'System administration', 'Users and Groups', 'Monitoring and Tuning', 'Troubleshooting', 'Service integration', and 'UDDI'. The main panel title is 'Cell=feb86Node01Cell, Profile=feb_b_profile'. It says 'Web servers' and provides a list of installed web servers. A table shows one entry: 'Select' (checkbox), 'Name' (webserver1), 'Web server Type' (IBM HTTP Server), 'Node' (myihs.ibm.com-node), 'Host Name' (myihs.ibm.com), 'Version' (Not applicable), and 'Status' (red asterisk). Below the table, it says 'Total 1'. On the right, there are links for 'Close page', 'Help', 'Field help', 'Page help', 'Command Assistance', and 'More information about this page'.

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

The screenshot shows the 'Web servers' page again. At the top, there's a 'Messages' box containing two messages: 'PLGC0005I: Plug-in configuration file = /opt/IBM/WebSphere/AppServer/profiles/feb_b_profile/config/cells/feb86Node01Cell/nodes/myihs.ibm.com-node/servers/webserver1/plugin-cfg.xml' and 'PLGC0052I: Plug-in configuration file generation is complete for the Web server. feb86Node01Cell.myihs.ibm.com-node.webserver1.'. Below this, the 'Web servers' section is visible with its header and a table showing one row for 'webserver1'. The table columns are 'Select' (checkbox), 'Name' (webserver1), 'Web server Type' (IBM HTTP Server), 'Node' (myihs.ibm.com-node), 'Host Name' (myihs.ibm.com), 'Version' (Not applicable), and 'Status' (red asterisk).

5. Copy all generated files to the Web Server

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

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

Example: WINDOWS

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

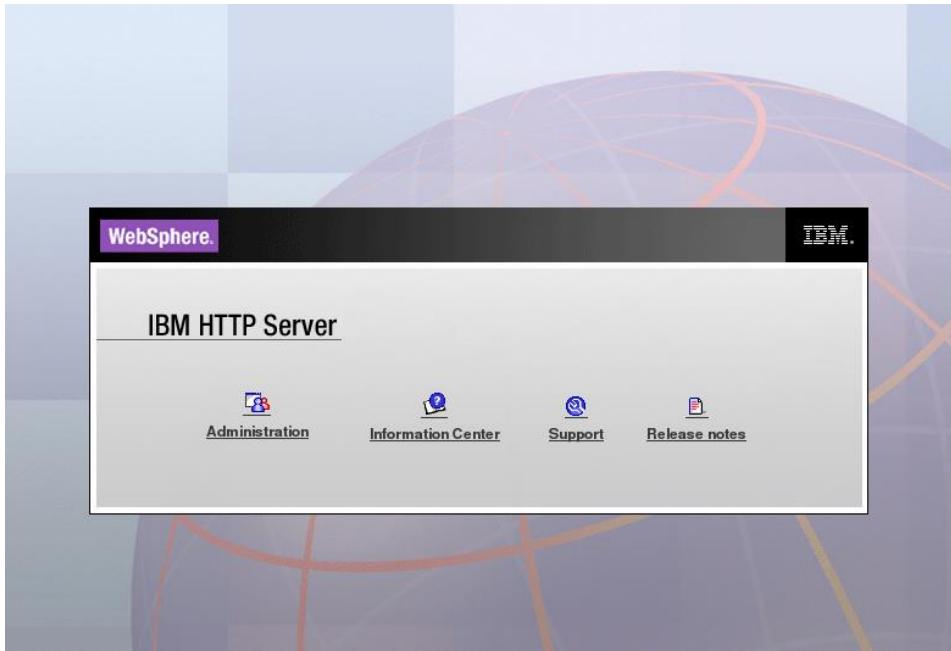
Example: LINUX

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

Example: AIX

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

6. Restart/Start the WebServer



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

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

Example:

```
http://myih.s.ibm.com
```



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

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

Example:

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

10 Whats Next...

10.1 Upgrade IBM Forms Experience Builder

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

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

10.2 Enable Security

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

1. Start the WebSphere Application Server

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

IBM Forms Experience Builder 8.6.4

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

Verify the version of WebSphere Portal is supported

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

10.4 Starter Pack

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

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

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

11 Troubleshoot

11.1 No “Fix” button During Post Installation Step

Problem:

IBM Forms Experience Builder Setup

There are two phases that need to be completed in order for IBM Forms Experience Builder to be setup.

Phase 1: Basic Environment Setup

Step 1: Data Source

 The data source has not been provided.

Step 2: Database Tables

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

Phase 2: Secured Environment Setup

Step 1: Mail Session

 The status of the mail session has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.

Step 2: Application Dependencies

 The status of the applications has not yet been determined. All Phase 1 checks must be OK or only a WARNING before it can be determined.

Solution:

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