

# **ASF 3.3 with IMS Document Connect for ASF**

Installation on Windows Server  
Using WebSphere Application Server V6

Server-to-Host Connection using  
WebSphere MQ

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# 1 Prerequisites

1. WebSphere Application Server (WAS) V6 has been installed, is operational, and has been started.

Note: The installation path is assumed to be  
D:\Programs\IBM\WebSphere\AppServer6.0

2. IBM HTTP Server (Version 1.3.26, or later) has been installed, is operational, and has been started.

Note: The installation path is assumed to be  
D:\Program Files\IBM HTTP Server

3. WebSphere MQ has been installed and the connections to the host (IMS) are available. This means that the input and output queue are available and the input queue is connected to IMS via the storage class.

Note: The MQ installation path is assumed to be  
D:\Programs\IBM\WebSphereMQExpress

4. The Document Connect for ASF (DC4ASF) war file has been installed in the following directory:

D:\Programs\IBM\dc4asf\war

## 2 Installation of the application

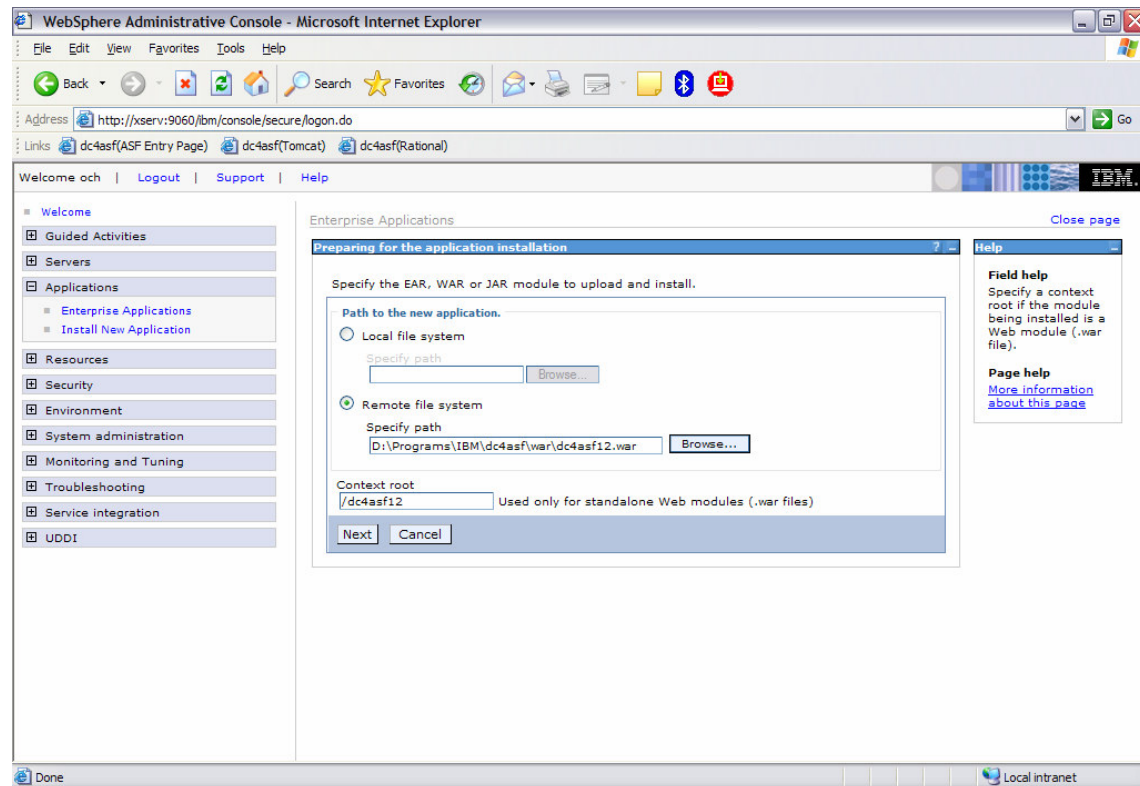
### *Preparing for the application installation*

Open [Application](#) > [Install New Application](#)

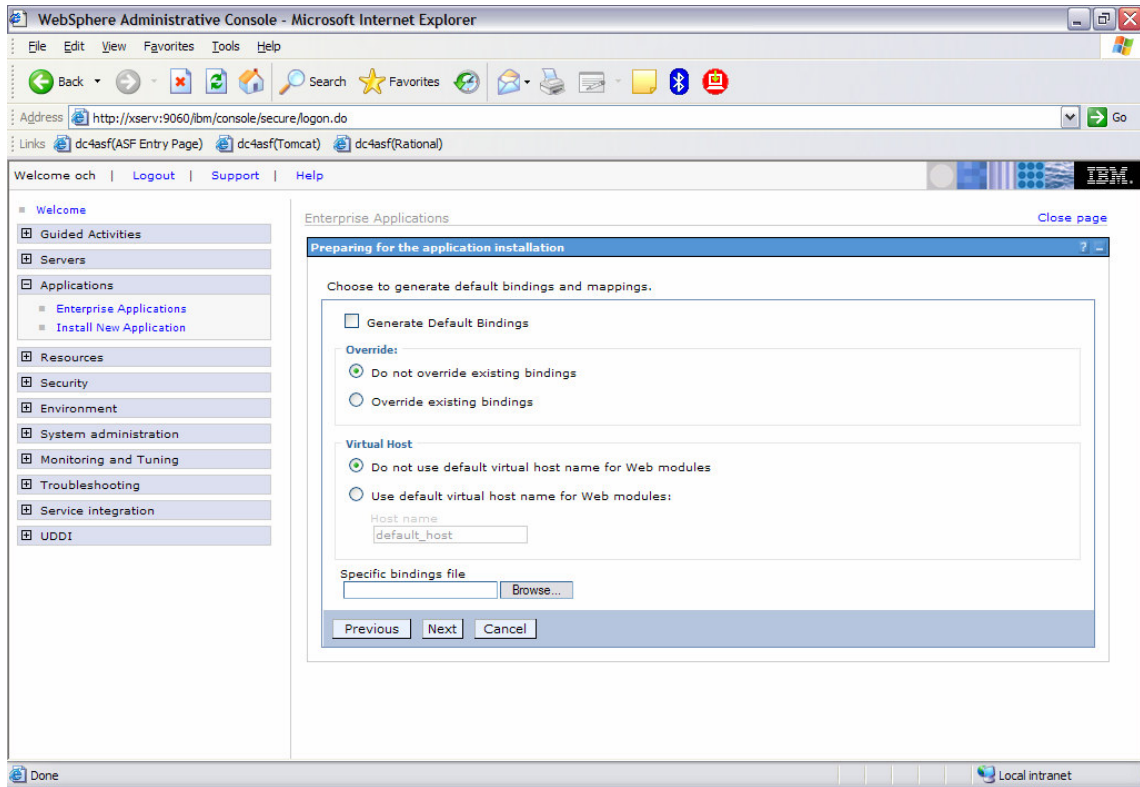
Enter the path (local path or server path) where the DC4ASF war file is located:

D:/Programs/IBM/dc4asf/war/dc4asf12.war

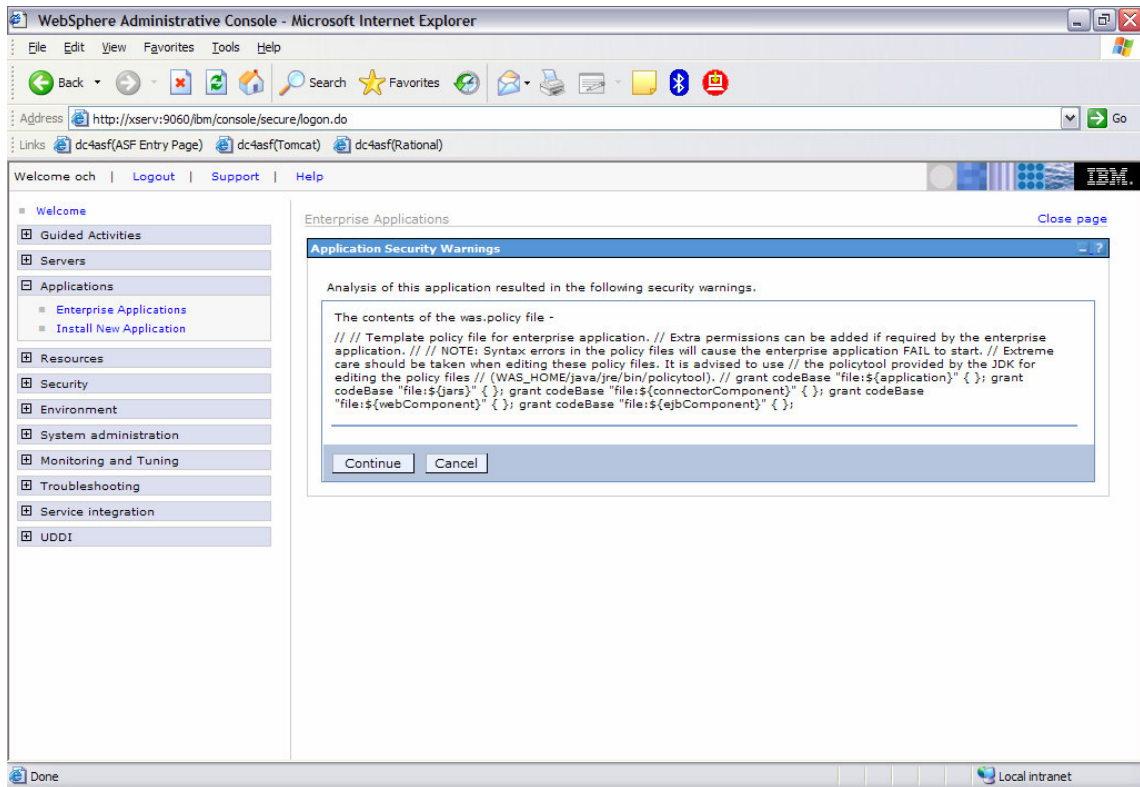
Enter the context root, for example “ /dc4asf12”



Select [Next](#). The file “dc4asf12.war” is now loaded on the server.



Select [Next](#).



Select [Continue](#).

## Install new application (Step 1)

Fill in the required fields (installation directory, application name, class reloading).

Directory to install application:

If you do not enter an installation directory, WAS will install the application under the default directory:

APP\_INSTALL\_ROOT/xxxxx/dc4asf12.ear

where

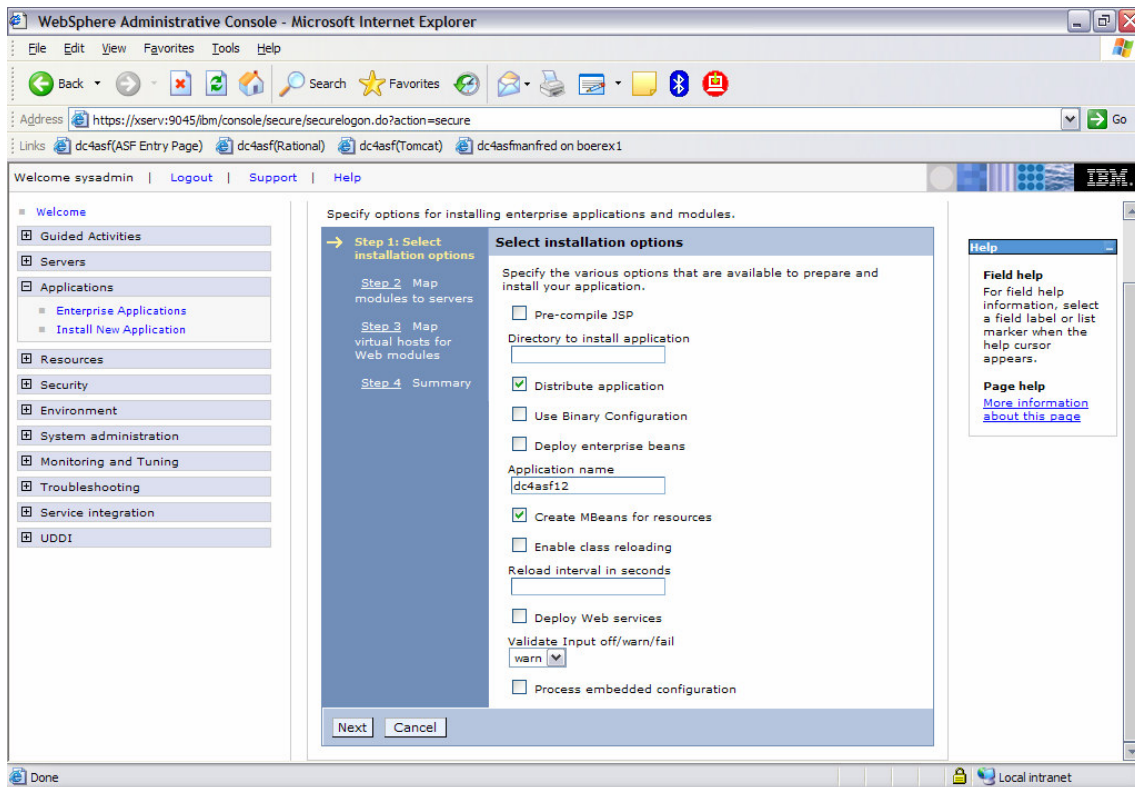
- APP\_INSTALL\_ROOT is a path map variable which for example is set to  
D:\Programs\IBM\WebSphere\AppServer6.0\profiles\default\installedApps\
- 'xxxxx' is the cell name and
- 'dc4asf12' is the application name.

Application Name:

Specify a unique name, for example 'dc4asf12'.

Class Reloading:

Do not enable class reloading.



Select **Next** to finish Step 1 and go to Step 2.

## Install new application (Step 2)

The screenshot shows the WebSphere Administrative Console in Microsoft Internet Explorer. The browser address bar displays `http://xserv:9060/ibm/console/secure/login.do`. The console interface includes a navigation menu on the left with categories like Welcome, Guided Activities, Servers, Applications, Resources, Security, Environment, System administration, Monitoring and Tuning, Troubleshooting, Service integration, and UDDI. The main content area is titled 'Enterprise Applications' and contains the 'Install New Application' wizard. The wizard is currently on 'Step 2: Map modules to servers'. The instructions state: 'Specify targets such as application servers or clusters of application servers where you want to install the modules contained in your application. Modules can be installed on the same application server or dispersed among several application servers. Also, specify the Web servers as targets that will serve as routers for requests to this application. The plug-in configuration file (plugin-cfg.xml) for each Web server is generated based on the applications which are routed through it.' Below the instructions, there is a 'Clusters and Servers' section with a text input field containing `WebSphere:cell=xservNode01Cell,node=xservNode01,server=server1` and `WebSphere:cell=xservNode01Cell,node=webserver1_node,server=webserver1`, followed by an 'Apply' button. A table below the text field shows the mapping of modules to servers:

Select	Module	URI	Server
<input type="checkbox"/>	dc4asf12	dc4asf12.war,WEB-INF/web.xml	WebSphere:cell=xservNode01Cell,node=xservNode01,server=se

At the bottom of the wizard, there are 'Previous', 'Next', and 'Cancel' buttons. The status bar at the bottom of the browser window shows 'Done' and 'Local intranet'.

Select [Next](#) to finish Step 2 and go to Step 3.

## Install new application (Step 3)

The screenshot shows the WebSphere Administrative Console in a Microsoft Internet Explorer browser window. The address bar displays `http://xserv:9060/ibm/console/secure/logon.do`. The main content area is titled "Enterprise Applications" and contains the "Install New Application" wizard. The wizard is currently on Step 3, "Map virtual hosts for Web modules".

The wizard interface includes a left-hand navigation pane with the following items:

- Welcome
- Guided Activities
- Servers
- Applications
  - Enterprise Applications
  - Install New Application
- Resources
- Security
- Environment
- System administration
- Monitoring and Tuning
- Troubleshooting
- Service integration
- UDDI

The main content area of the wizard is titled "Map virtual hosts for Web modules" and contains the following text:

Specify the virtual host where you want to install the Web modules contained in your application. You can install Web modules on the same virtual host or disperse them among several hosts.

Apply Multiple Mappings

Select	Web module	Virtual host
<input type="checkbox"/>	dc4asf12	default_host

At the bottom of the wizard, there are three buttons: "Previous", "Next", and "Cancel".

On the right side of the wizard, there is a "Help" section with the following text:

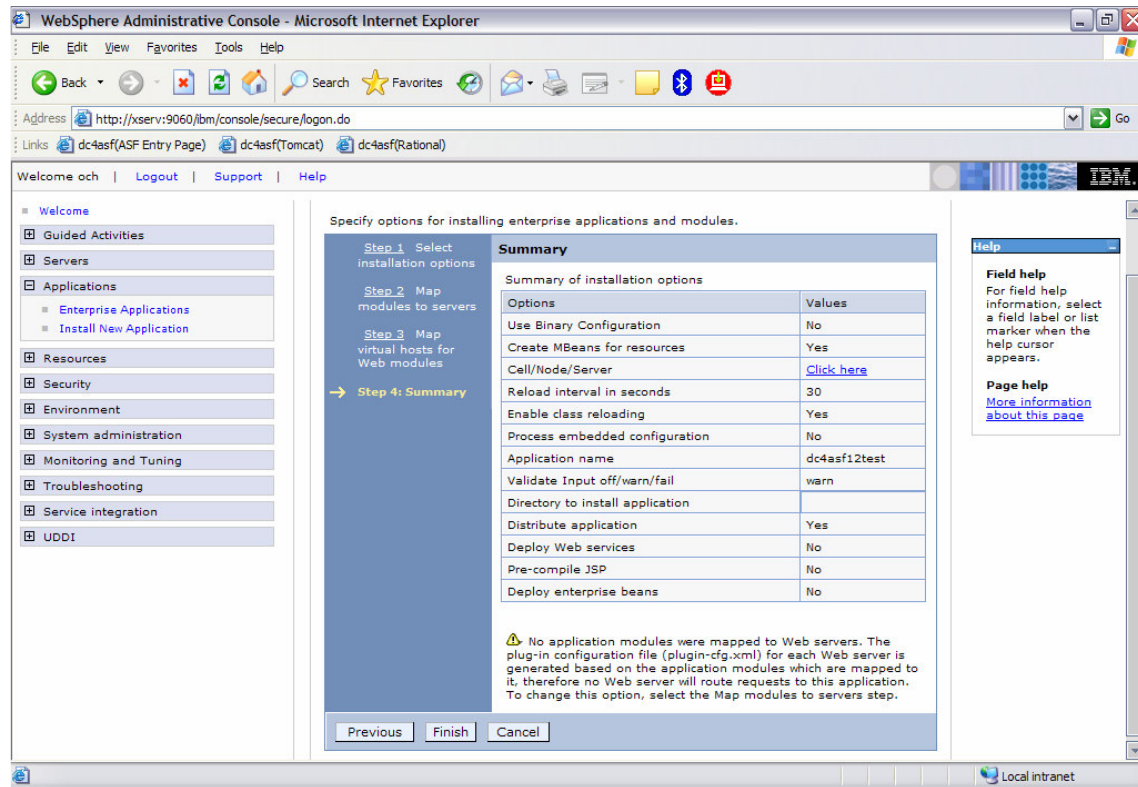
**Field help**  
For field help information, select a field label or list marker when the help cursor appears.

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

No updates are required for Step 3. Select **Next** to finish Step 3 and go to Step 4.



## Install new application (Step 4)



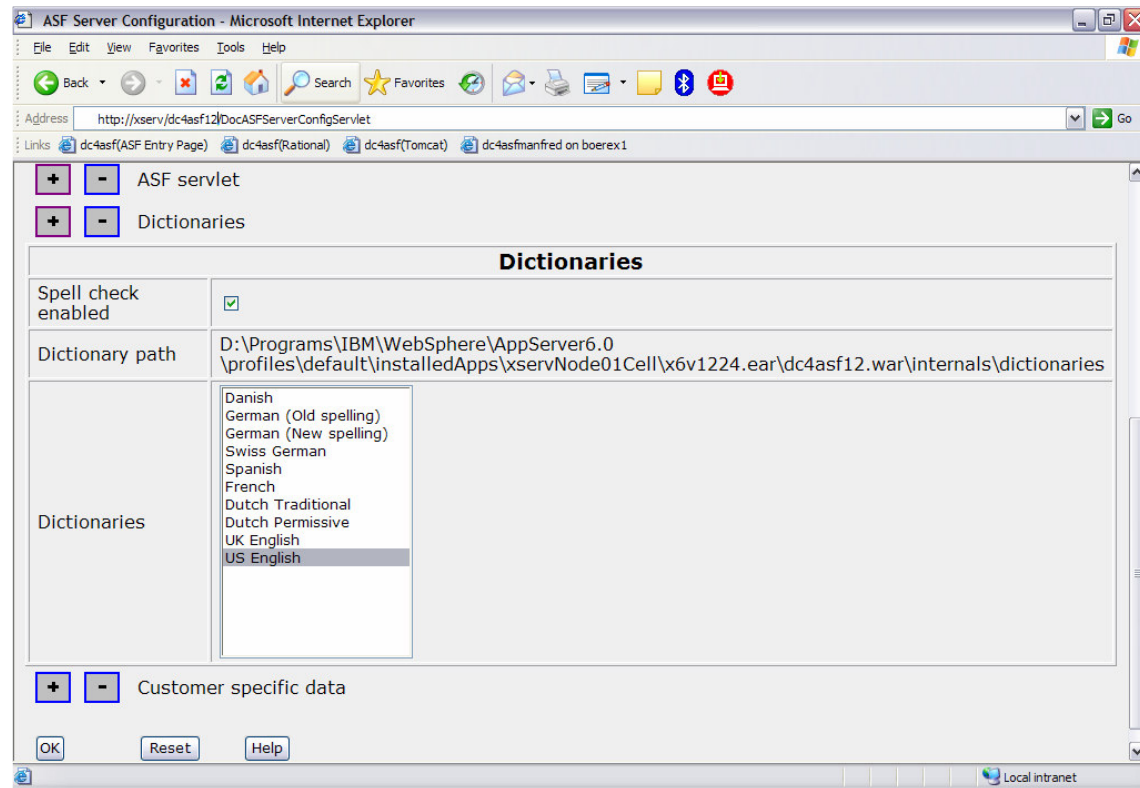
Check the settings on this page and select **Finish** to start the installation of your application. When the installation of the application has been completed it must be **saved** in the master configuration.

## Start the application

Open [Applications](#) > [Enterprise Application](#), select your dc4asf12 application and select **Start** to start the application.

### 3 Activation of Dictionaries for Spellchecking

To activate the dictionaries for spellchecking invoke the servlet application “DocASFServerConfigServlet”, using the Microsoft Internet Explorer. Ask the ASF administrator(s) which dictionaries should be active.



Select [OK](#).

[Stop](#) and [Start](#) your application using the WebSphere Administrative Console.

## 4 Enable MQ Connection

To enable the MQ connection between server and host you must have installed WebSphere MQ as JMS provider. For more information refer to:

[http://publib.boulder.ibm.com/infocenter/wasinfo/v6r0/topic/com.ibm.websphere.base.doc/info/aes/ae/tmj\\_instm.html](http://publib.boulder.ibm.com/infocenter/wasinfo/v6r0/topic/com.ibm.websphere.base.doc/info/aes/ae/tmj_instm.html)

Set the MQJMS\_LIB\_ROOT environment variable to the directory where WebSphereMQJava\lib is installed. IBM WebSphere Application Server uses the MQJMS\_LIB\_ROOT to locate the WebSphere MQ libraries for the WebSphere MQ JMS Provider.

Open [Environment](#) > [WebSphere Variables](#)

Set the MQ\_INSTALL\_ROOT environment variable to your WebSphere MQ installation path (e.g. D:\Programs\IBM\WebSphereMQexpress) and the MQJMS\_LIB\_ROOT to \${MQ\_INSTALL\_ROOT}/java/lib.

Variable Name	Value	Cell
<input type="checkbox"/> DB2UNIVERSAL_JDBC_DRIVER_PATH		cells:xservNode01Cell:node01
<input type="checkbox"/> DB2_JDBC_DRIVER_PATH		cells:xservNode01Cell:node01
<input type="checkbox"/> DC4ASF_CONFIGHOME	*	cells:xservNode01Cell:node01
<input type="checkbox"/> DEPLOY_TOOL_ROOT	\${WAS_INSTALL_ROOT}/deploytool/itp	cells:xservNode01Cell:node01
<input type="checkbox"/> DRIVER_PATH	\${WAS_INSTALL_ROOT}	cells:xservNode01Cell:node01
<input type="checkbox"/> INFORMIX_JDBC_DRIVER_PATH		cells:xservNode01Cell:node01
<input type="checkbox"/> JAVA_HOME	D:\Programs\IBM\WebSphere\AppServer6.0/java	cells:xservNode01Cell:node01
<input type="checkbox"/> LOG_ROOT	\${USER_INSTALL_ROOT}/logs	cells:xservNode01Cell:node01
<input type="checkbox"/> MQJMS_LIB_ROOT	<b>\${MQ_INSTALL_ROOT}/java/lib</b>	cells:xservNode01Cell:node01
<input type="checkbox"/> MQ_INSTALL_ROOT	D:\Programs\IBM\WebSphereMQexpress	cells:xservNode01Cell:node01
<input type="checkbox"/> MSSQLSERVER_JDBC_DRIVER_PATH		cells:xservNode01Cell:node01
<input type="checkbox"/> ORACLE_JDBC_DRIVER_PATH		cells:xservNode01Cell:node01
<input type="checkbox"/> OS400_NATIVE_JDBC_DRIVER_PATH		cells:xservNode01Cell:node01
<input type="checkbox"/> OS400_TOOLBOX_JDBC_DRIVER_PATH		cells:xservNode01Cell:node01

Select [Apply](#) first and then select [OK](#).

[Save](#) the changes to the master configuration.

After modifying the environment variables, you must stop and restart WebSphere Application Server.

## 5 Web Server Changes

### *Using the IBM HTTP Server*

#### 5.1.1 Configure the WebSphere PLUGIN

**Using Dynamic Link Library (DLL) "mod\_was\_app20\_http.dll".**

Make sure you have installed the Dynamic Link Library (DLL) mod\_was\_app20\_http.dll. This DLL is usually installed with WAS by selecting the HTTP server installation. It resides in the bin directory of the WAS installation.

#### **Generate the configuration file "plugin6-cfg.xml"**

Generate the plugin configuration file "plugin6-cfg.xml" using the WebSphere Administrative Console. For more information refer to

<http://publib.boulder.ibm.com/infocenter/ieduasst/v1r1m0/index.jsp>

chapter "Create Web Server Definition and Map Applications"

#### 5.1.2 Configure the IBM HTTP Server

You need to configure your IBM HTTP Server to run properly with DC4ASF. Proceed as follows:

- a) Open the HTTP server configuration file "httpd.conf". Usually it is located in the conf directory of the HTTP server installation.
- b) Verify that the dynamic link library (DLL) points to the configuration file "plugin6-cfg":

```
LoadModule was_ap20_module ""D:\Programs\IBM\WebSphere\AppServer6.0PlugIn\bin\mod_was_ap20_http.dll"  
WebSpherePluginConfig "D:\Programs\IBM\HTTPServer6.0\conf\plugin6-cfg.xml"
```

- c) If you changed the file "httpd.conf" then restart the HTTP server to activate the changes.

### *Using the Microsoft Internet Information Server (IIS)*

## 6 Configure the Connections

To define the server-host connections in DocNetworkConfiguration.xml invoke the servlet application “DocASFNetworkConfigServlet”, using the Microsoft Internet Explorer.

Specify the queue manager, the server reply queue, the server request queue, the IMS transaction code, the defined RACF user ID used for IMS logon, the corresponding password and the MQ wait interval.

Press button **OK** to save your changes.

### Note:

- The password specified will be encrypted and stored in file “hnp.txt” in the /config subdirectory.
- Do not specify the host reply queue and the host queue manager if within one MQ system (server reply queue and server request queue are both local). If you go to IMS via different MQ systems (you have remote queues and channel definitions) you must specify the host queue manager and the host reply queue. Both are in the target system which is connected to your IMS system.
- If you specify a IMS transaction code prefix xxx, the transaction code for preview requests is set to xxxV, the transaction code for quick preview requests is set to xxxQ and the transaction code for all other requests is set to xxxE.
- If you specify a IMS transaction code, this transaction code is used for all requests.

Host nickname	Host connection data
sc118mq	Connection type: IMSMQ
	Conversational IMS Processing: <input type="checkbox"/>
	Host reply queue: <input type="text"/>
	Host queue manager: <input type="text"/>
	Server queue manager: QE71
	Server reply queue: REPLY.ASF3318
	Server request queue: ASF3318.ALIAS
	XCode prefix: <input type="text"/>
	XCode: SC1E
	RACF user ID: IMSuser
	New Password: .....
	Confirm new password: .....
	MQ Wait interval: 25

**Stop** and **Start** your application in the WebSphere Administrative Console.

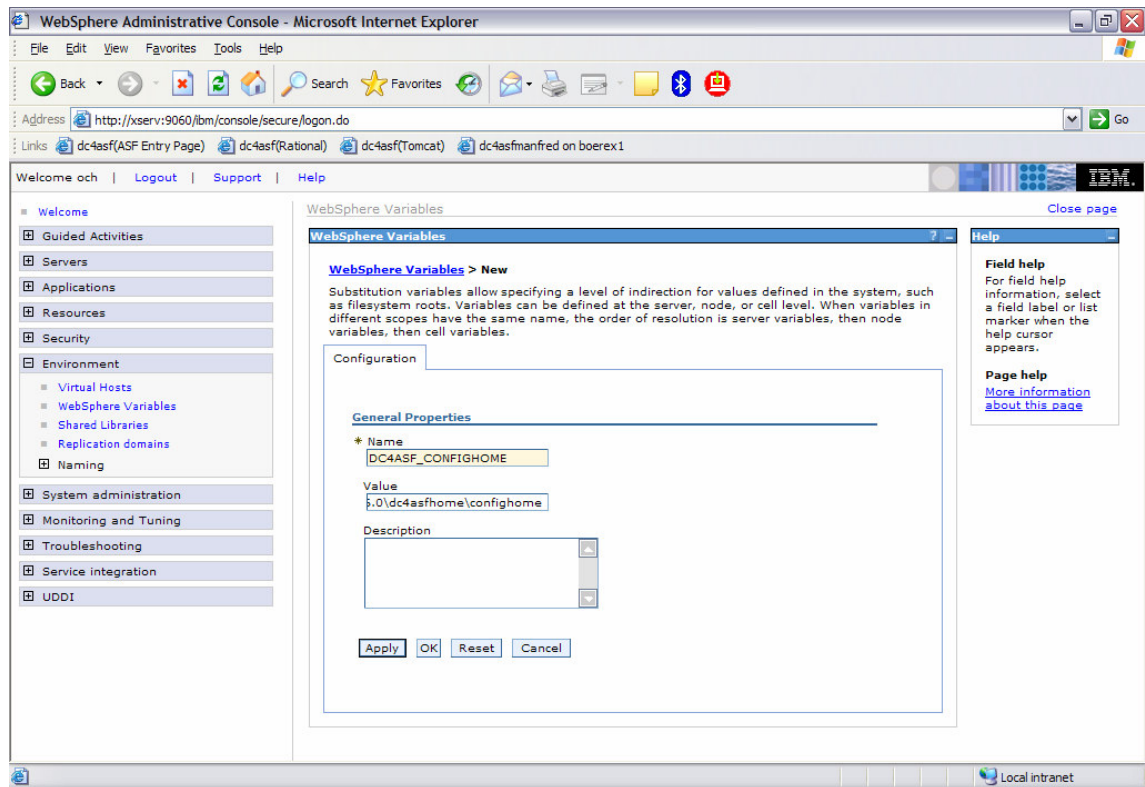
## 7 Single Configuration File

If you are running DC4ASF in a multi-node environment or you have more than one instance of DC4ASF but you want to have only one set of configuration files, perform the following steps:

- Create two WebSphere variables

Open [Environment](#) > [WebSphere Variables](#) > [New](#)

Create the variables DC4ASF\_CONFIGHOME and DC4ASF\_DATAHOME and set the values for example to D:\Programs\IBM\WebSphere\AppServer6.0\dc4asfhome\confighome and D:\Program\IBM\WebSphere\AppServer6.0\dc4asfhome\datahome



- Create the three directories

\$(CONFIG\_HOME)

for example D:\Programs\IBM\WebSphere\AppServer6.0\dc4asfhome\confighome

\$(DATA\_HOME)/log

for example D:\Programs\IBM\WebSphere\AppServer6.0\dc4asfhome\datahome\log

\$(DATA\_HOME)/preview

for example D:\Programs\IBM\WebSphere\AppServer6.0\dc4asfhome\datahome\preview

- Copy the configuration files

DocConfiguration.xml

DocNetworkConfiguration.xml

DocXSLConversion.xml

DocSpellCheckConfiguration.xml

hnp.txt

From \$(APP\_INSTALL\_ROOT)\xservNode01Cell\dc4asf12.ear\dc4asf12.war\internals\config to \$(CONFIG\_HOME)

- Change the configuration.xml as follows:

```
<Network>
  <ConfigFile>$(CONFIG_HOME)/DocNetworkConfiguration.xml</ConfigFile>
</Network>

<XSLConversion>
  <HTMLPath>xsl</HTMLPath>
  <ConfigFile>$(CONFIG_HOME)/DocXSLConversion.xml</ConfigFile>
</XSLConversion>

<Logging enable="Y">
  <GenericName>$(DATA_HOME)/log/logfile</GenericName>
  <Extension>.log</Extension>
  <NumberOfGenerations>10</NumberOfGenerations>
  <Filesize>3096</Filesize>
  <Recordlength>330</Recordlength>
</Logging>

<Tracing enable="Y" sessiontrace="N">
  <GenericName>$(DATA_HOME)/log/trcfile</GenericName>
  <Extension>.trc</Extension>
  <Recordlength>3300</Recordlength>
```



## 8 Protect access to the Configuration Servlets

To restrict the access to the configuration servlets for DC4ASF two prerequisites must be met:

- “Global Security” of the WebSphere Application Server (WAS) is enabled.

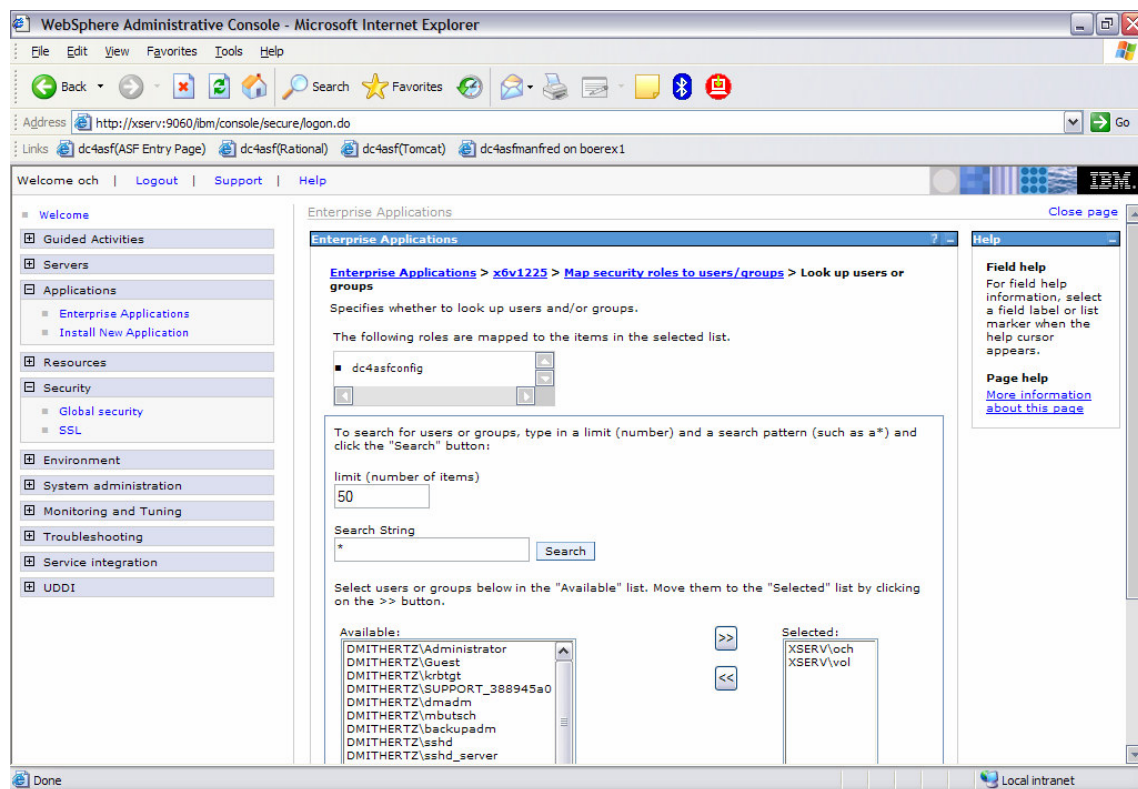
For more information refer on “Global Security” visit the online help of the WebSphere Application Server.

- At least DC4ASF maintenance level 1.2.2.5 is installed.

If the prerequisites are met, follow the steps below:

Open [Applications](#) > [Enterprise Applications](#) > [dc4asf12](#) > [Additional properties](#) > [Map security roles to users/groups](#)

Select the role “dc4asfconfig” and click the button [Lookup users](#). Type in a limit and a search pattern for users and click the button [Search](#). Select the users and click on the button with the arrows to move them to the “Selected” list. Press [OK](#). Then click the button [Lookup groups](#). Type in a limit and a search pattern for groups and click the button [Search](#). Select those groups to whom the selected users belong to and click on the button with the arrows to move them to the “Selected” list. Press [OK](#). Press again [OK](#).



[Save](#) the changes to the master configuration, then [Stop](#) and [Start](#) the WebSphere Application Server.

To verify the successful implementation of security launch both the DC4ASF configuration servlet DocASFServerConfigServlet and the DC4ASF network configuration servlet DocASFNetworkConfigServlet. You will be prompted to enter your user ID and password.



## 9 AFP Resources

To make the AFP resources (page segments and overlays) available on the server for resolution during “Print Preview” requests perform the following steps:

- Copy the page segments from the host system (for example via ftp) into the directory  
<D:\Program Files\IBM\IBM Document Connect for ASF\www\AFPResources\pseg>  
The page segments must have the extension “**psg**”.
- Copy the overlays from the host system (for example via ftp) into the directory  
<D:\Program Files\IBM\IBM Document Connect for ASF\www\AFPResources\ovl>  
The overlays must have the extension “**oly**”.
- To define the server URL in DocConfiguration.xml invoke the servlet application “DocASFServerConfigServlet”, using the Microsoft Internet Explorer. Specify your server URL in the Preview AFP Section.

Transformation list											
Selection	Values										
<input checked="" type="checkbox"/> AFP	<table border="1"><tr><td>Extension</td><td>afp</td></tr><tr><td>Transformation class</td><td></td></tr><tr><td>Transformation path</td><td>D:\Program Files\IBM\IBM Document Connect for ASF\www\AFPResources</td></tr><tr><td>Transformation command</td><td></td></tr><tr><td>URL</td><td>http://b55m852l/dc4asf/AFPResources</td></tr></table>	Extension	afp	Transformation class		Transformation path	D:\Program Files\IBM\IBM Document Connect for ASF\www\AFPResources	Transformation command		URL	http://b55m852l/dc4asf/AFPResources
Extension	afp										
Transformation class											
Transformation path	D:\Program Files\IBM\IBM Document Connect for ASF\www\AFPResources										
Transformation command											
URL	http://b55m852l/dc4asf/AFPResources										
<input type="checkbox"/> InfoPrint PDF	<table border="1"><tr><td>Extension</td><td>pdf</td></tr><tr><td>Transformation class</td><td>com.ibm.doc.util.DocInfoPrintTransform</td></tr><tr><td>Transformation path</td><td></td></tr><tr><td>Transformation</td><td>F:\Data\Programs\WebSphere\AppServer\uni</td></tr></table>	Extension	pdf	Transformation class	com.ibm.doc.util.DocInfoPrintTransform	Transformation path		Transformation	F:\Data\Programs\WebSphere\AppServer\uni		
Extension	pdf										
Transformation class	com.ibm.doc.util.DocInfoPrintTransform										
Transformation path											
Transformation	F:\Data\Programs\WebSphere\AppServer\uni										

Press button **OK** to save your changes.

## 10 Installing a second Application

The steps above describe how to install the application dc4asf12 in WebSphere Application Server.

**IBM recommends that you generate a second application instance of Document Connect for ASF for use by administrators, for example “[dc4asf12test](#)”.**

1. Perform the steps described in “Installation of the application” with the following changes:

In the paragraph “Preparing for the application installation” specify the following context root:

[/dc4asf12test](#)

In the paragraph “Install new application (Step 1)”, use “[dc4asf12test](#)” as the application name.

2. Perform the steps described in “Configure the Connections”

# 11 Applying Maintenance

Copy the zip file containing the maintenance into a directory:

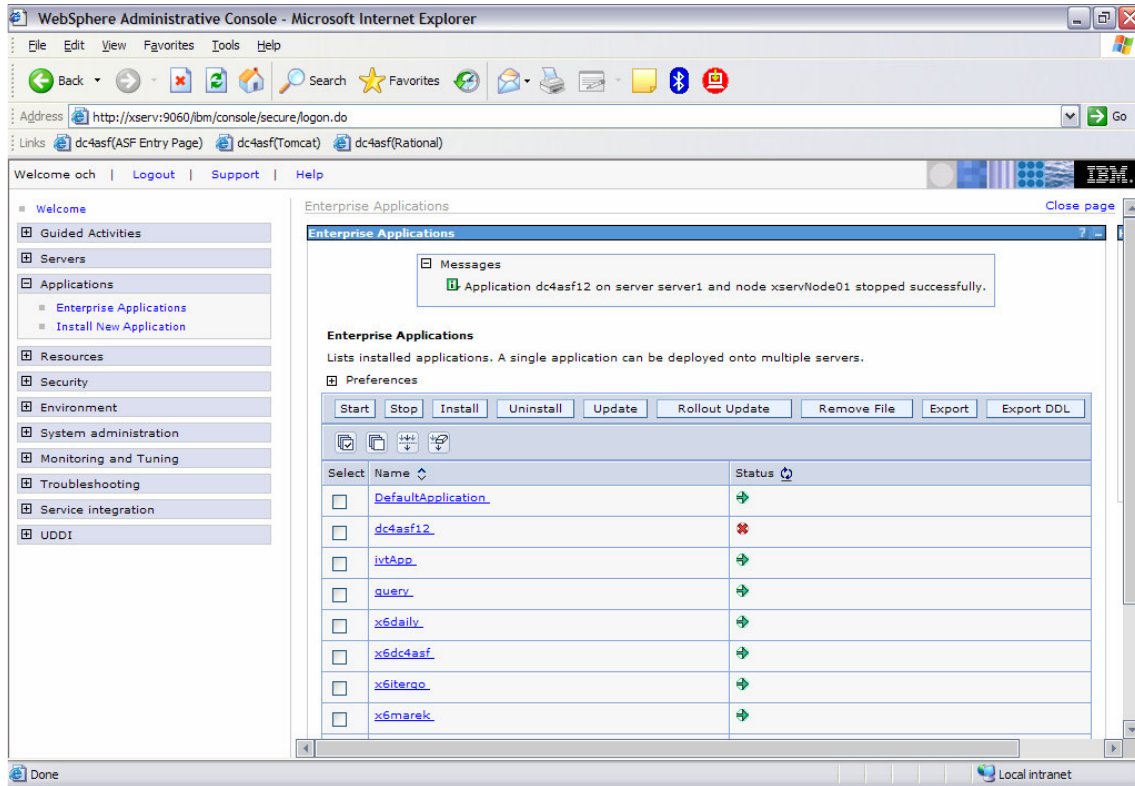
D:\Programs\IBM\dc4asf\ptf

Open the WebSphere Administrative Console:

[Open Application > Enterprise Application](#)

**Stop** the applicable application, for example “dc4asf12”.

Select application “dc4asf12” and enter **Update**.



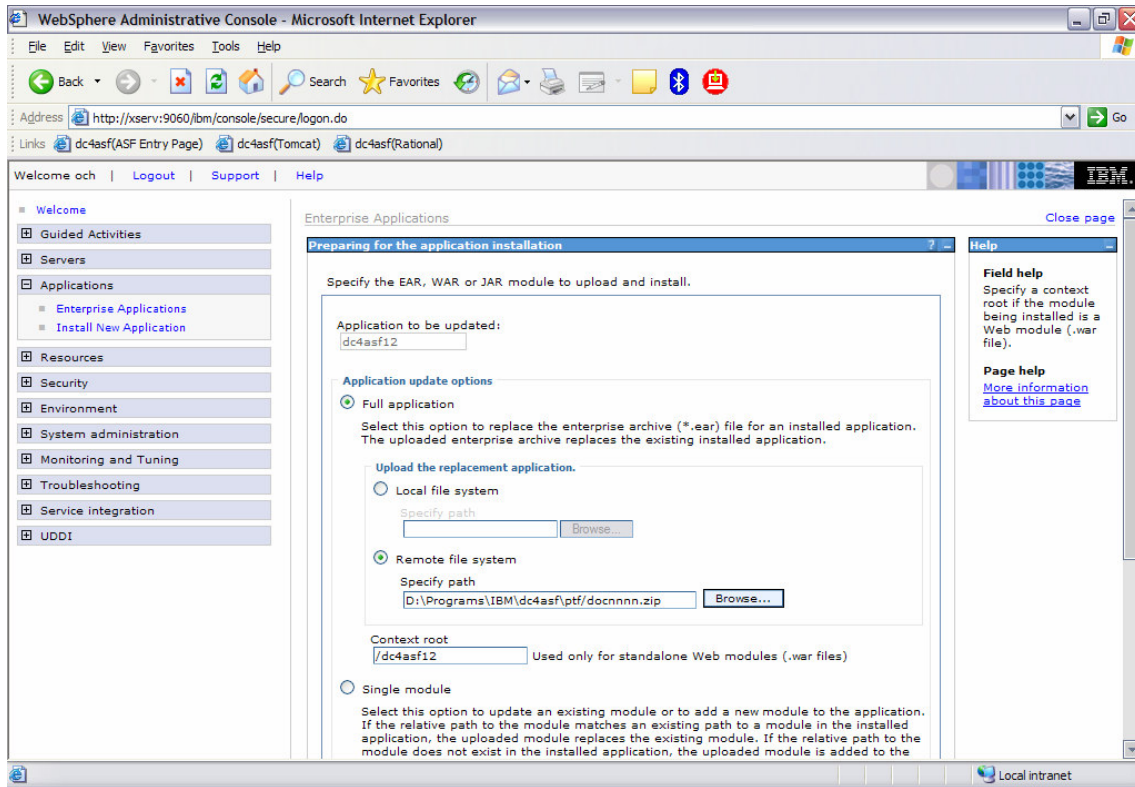
Enter the path (local path or server path) where the new DC4ASF zip file is located:

D:\Programs\IBM\dc4asf\ptf\docnnn.zip

Enter the context root: “/dc4asf12”

Note:

The context root must be the same as the context root entered during installation (see “Preparing for the application installation”).



On each of the next panels select **Next** and finally select **Finish**. After the update of the application has been completed save the master configuration.

Open [Applications](#) > [Enterprise Application](#) and select your application DC4ASF. Select **Start** to restart the application.