ASF 3.3 with CICS
Document Connect for ASF

Installation on z/OS Server
Using WebSphere Application Server V5.1

Server-to-Host Connection using
WebSphere MQ

Edition: 1.1

31 March 2005

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1 Prerequisites

1. WebSphere Application Server (WAS) V5.1 has been installed, is operational, and has been started

   Note: The installation path is assumed to be
   /local/WebSphere/V5R1M0

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
   /etc

3. WebSphere MQ has been installed and the connections to the host (CICS) are available. This means the input and output queue are available and the input queue is connected to CICS via the CICS adapter and the CICS bridge.

   Note: The MQ installation path is assumed to be
   /usr/lpp/mqm/V5R3M1

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

   path_prefix/usr/lpp/fsn/V3R3M0W5

   where path_prefix is assumed to be null

5. The following ASF V3R3 PTFs are required:

PTF #	FMID	Rel.
UQ93059	HSF1300	300
UQ93246	JSF1310	310
UQ93247	JSF1311	311
UQ93248	JSF1312	312
UQ93249	JSF1313	313
UQ93257	JSF1314	314
UQ93263	JSF1315	315
UQ93264	JSF1317	317
UQ93267	JSF1318	318
UQ93268	JSF1319	319

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2 Name Space Bindings

Two name space bindings must be created. To do this, open the WebSphere Administrative Console:

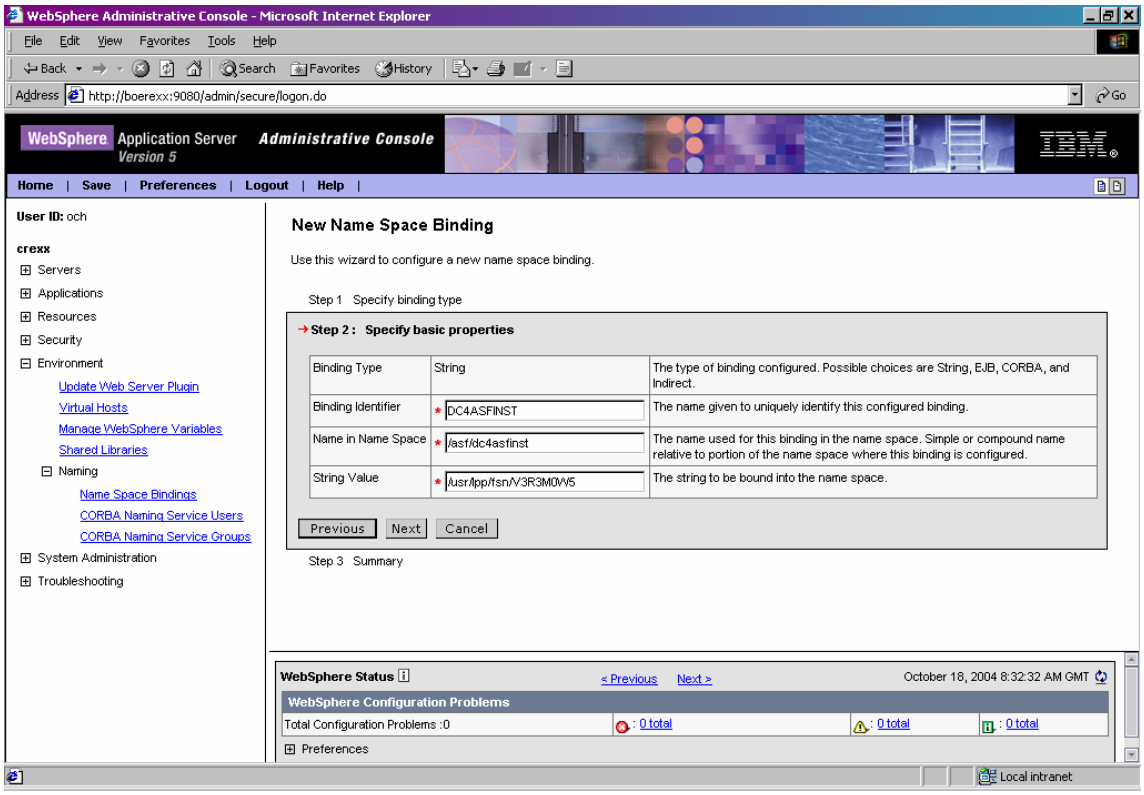
Open Environment > Naming >Name Space Bindings

Note: Ensure you are in the Server scope.

2.1 Define Name Space Binding for DC4ASFINST

a) Select New to create a new Binding
b) Choose type **String** for the binding and select Next
c) Enter
- the Binding Identifier
(for example DC4ASFINST)
- Name in Name Space
(for example resources/asf/dc4asfinst)
- and the path to your ASF installation directory
(/usr/lpp/fsn/V3R3M0W5)

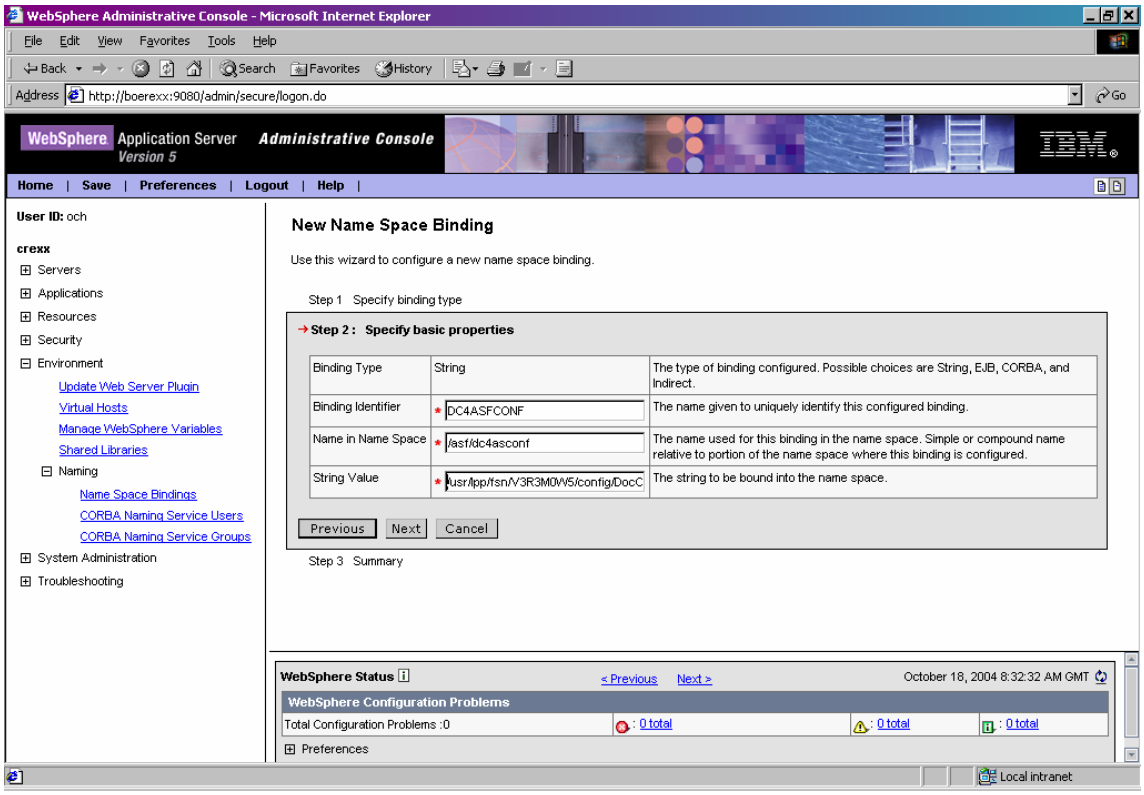
d) Select Next to go to the Summary Panel
e) In the Summary Panel select Finish to complete the Name Space Binding.



2.2 Define Name Space Binding for DC4ASFCONF

a) Select New to create a new Binding
b) Choose type **String** for the binding and select Next
c) Enter
- the Binding Identifier
  (for example DC4ASFCONF),
- Name in Name Space
  (for example resources/asf/dc4asfconf)
- and the path to your ASF configuration file
  (/usr/lpp/fsn/V3R3M0W5/config/DocConfiguration.xml)

d) Select Next to go to the Summary Panel
e) On the Summary Panel select Finish to complete the Name Space Binding.



Save the two name space bindings created in the master configuration.

3 Installation of the application

Preparing for the application installation

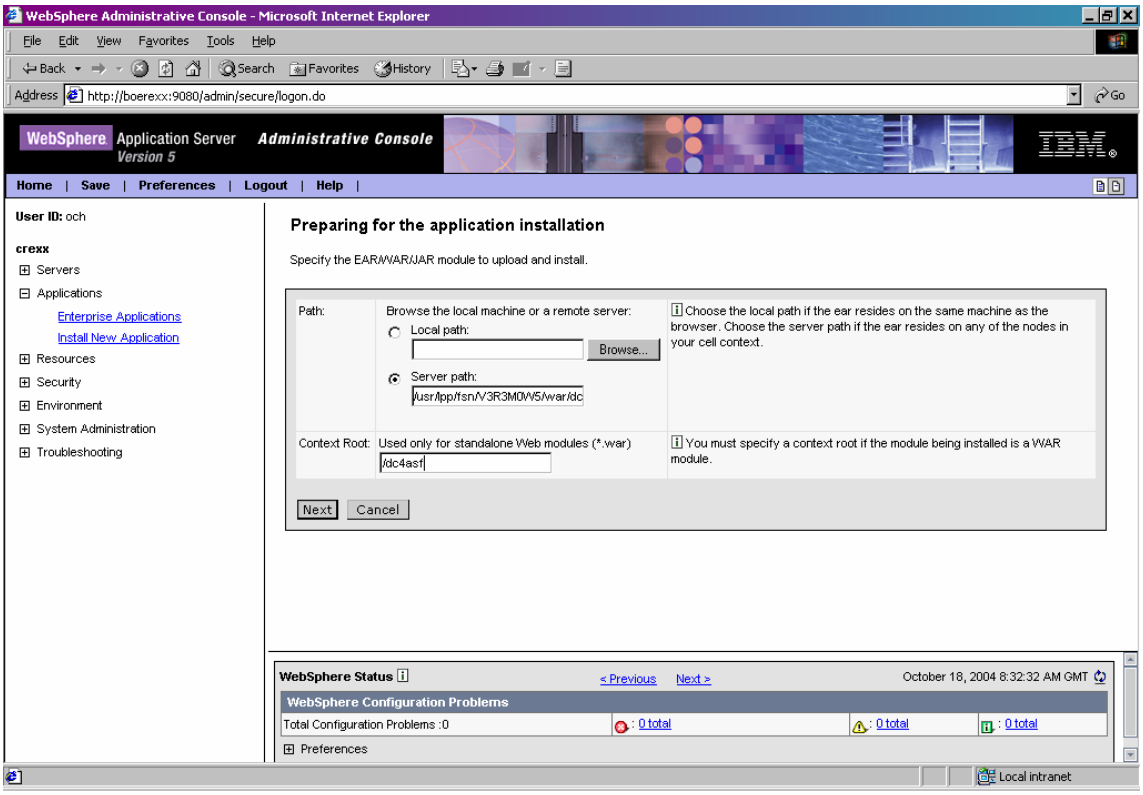
Open Application > Install New Application

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

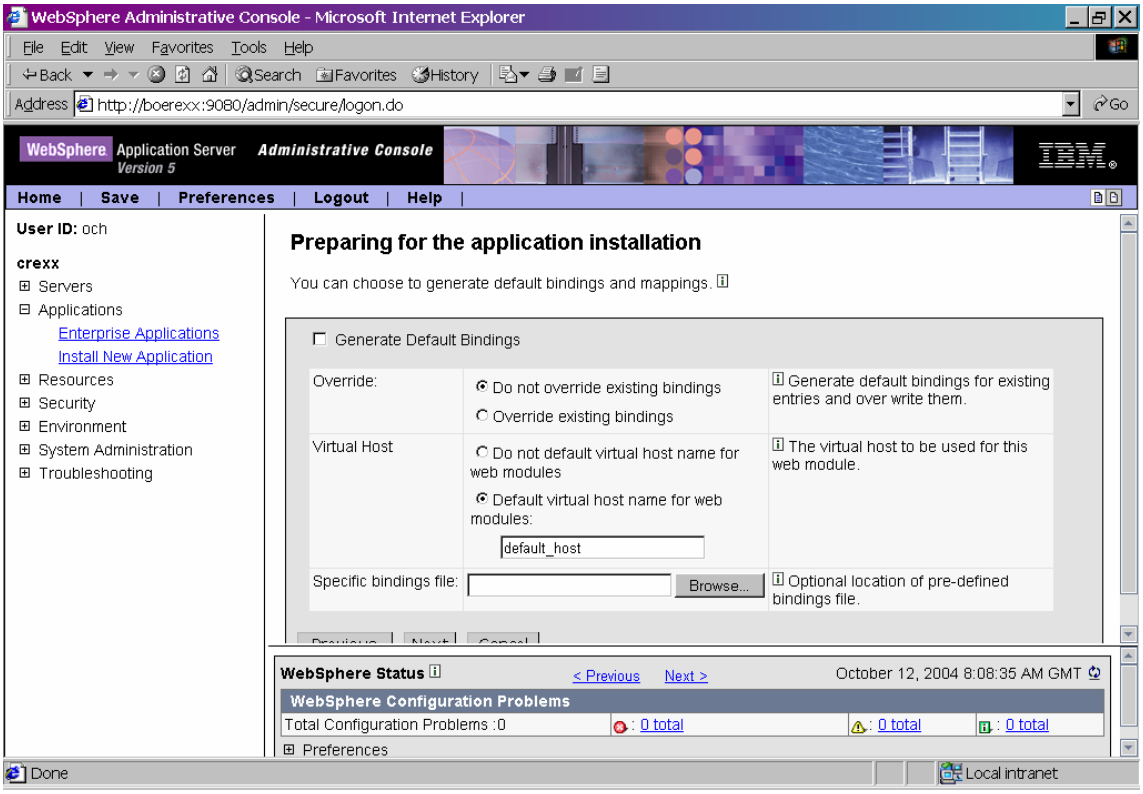
/usr/lpp/fsn/V3R3M0W5/war/dc4asf.war

Enter the context root, for example " /dc4asf"

Select Next. The file "dc4asf.war" is now loaded on the server



Select Next.


WebSphere Administrative Console - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://boerexx:9080/admin/secure/logon.do
Go
WebSphere Application Server Version 5
Administrative Console
IBM
Home | Save | Preferences | Logout | Help |
User ID: och
crexx
Servers
Applications
Enterprise Applications
Install New Application
Resources
Security
Environment
System Administration
Troubleshooting
Preparing for the application installation
You can choose to generate default bindings and mappings.
Generate Default Bindings
Override:
Do not override existing bindings
Override existing bindings
Generate default bindings for existing entries and over write them.
Virtual Host
Do not default virtual host name for web modules
Default virtual host name for web modules:
default_host
The virtual host to be used for this web module.
Specific bindings file:
Browse...
Optional location of pre-defined bindings file.
WebSphere Status
< Previous
Next >
October 12, 2004 8:08:35 AM GMT
WebSphere Configuration Problems
Total Configuration Problems :0
: 0 total
: 0 total
: 0 total
Preferences
Done
Local intranet

Select Next.

Install new application (Step 1)

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

Installation directory:

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

APP_INSTALL_ROOT/xxxxx/dc4asf.ear

where

- APP_INSTALL_ROOT is a path map variable which by default is set to

  /SYSTEM/local/WebSphere/V5R1M0/AppServer/installedApps/

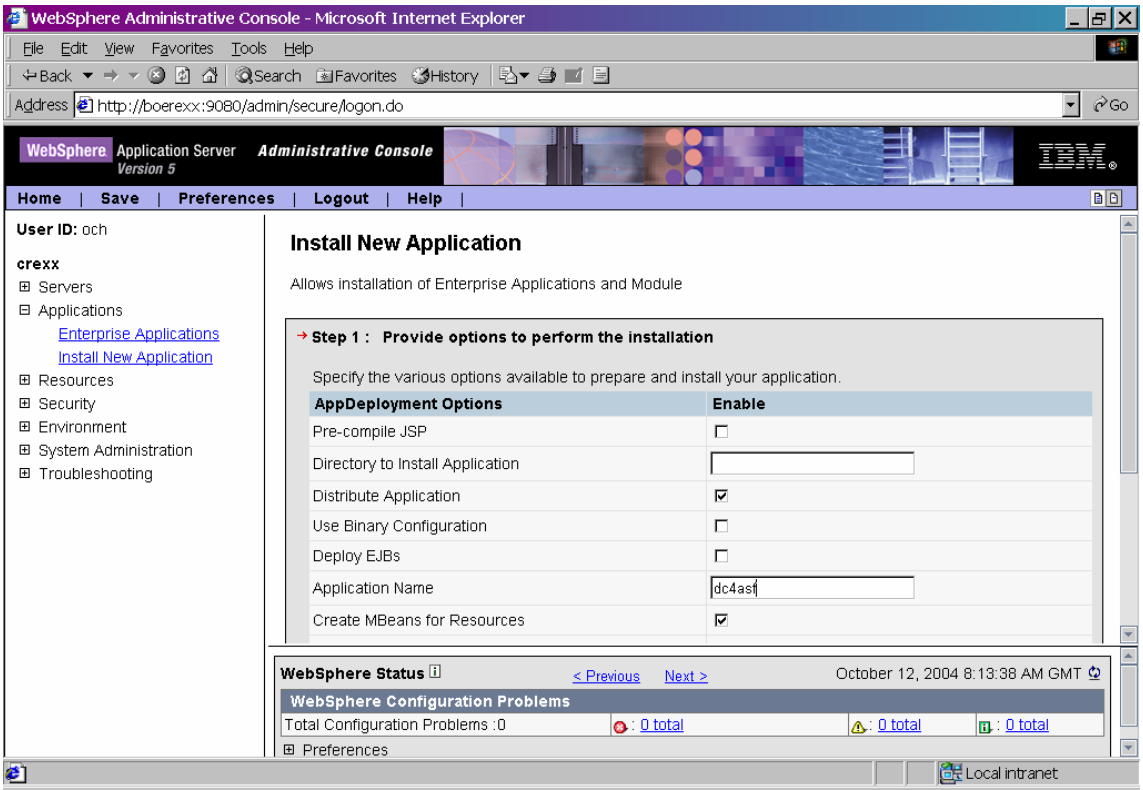
- 'xxxxx' is the cell name and
- 'dc4asf' is the application name.

Application Name:

Specify a unique name, for example 'dc4asf'.

Class Reloading:

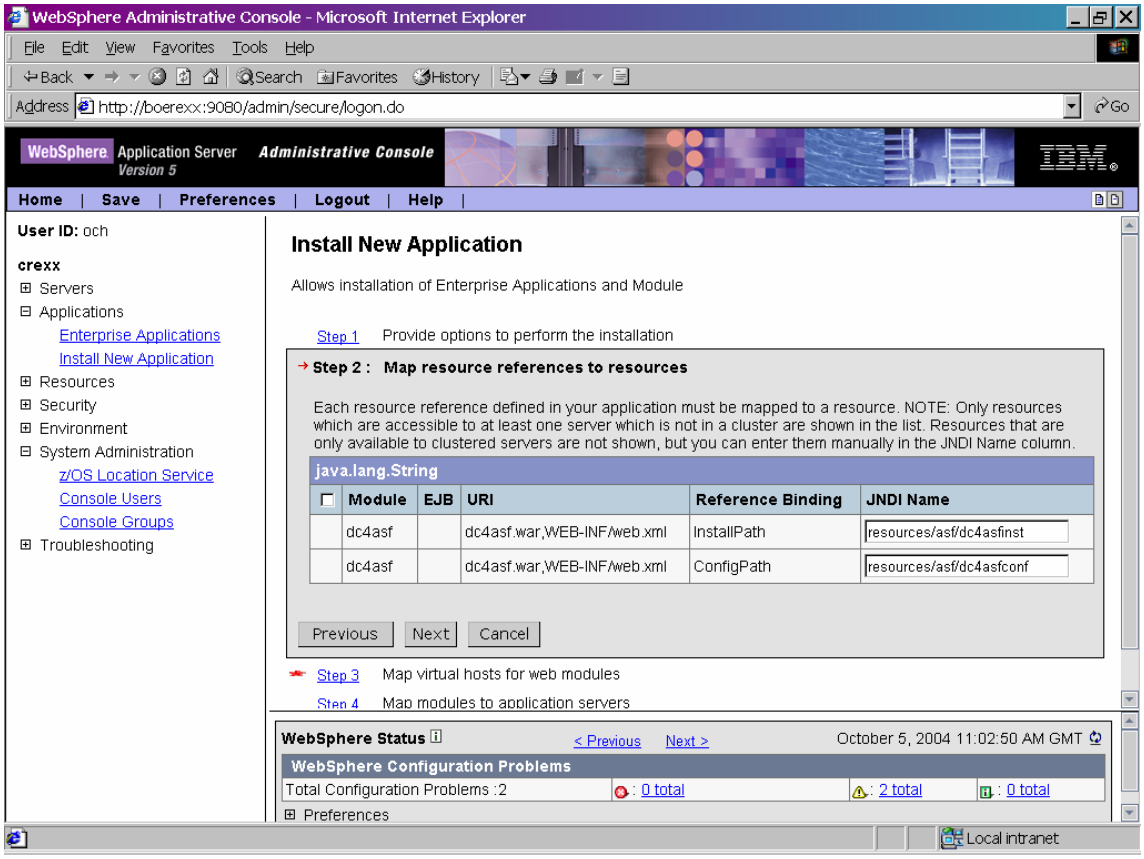
Specify a value in seconds, for example '30'.



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

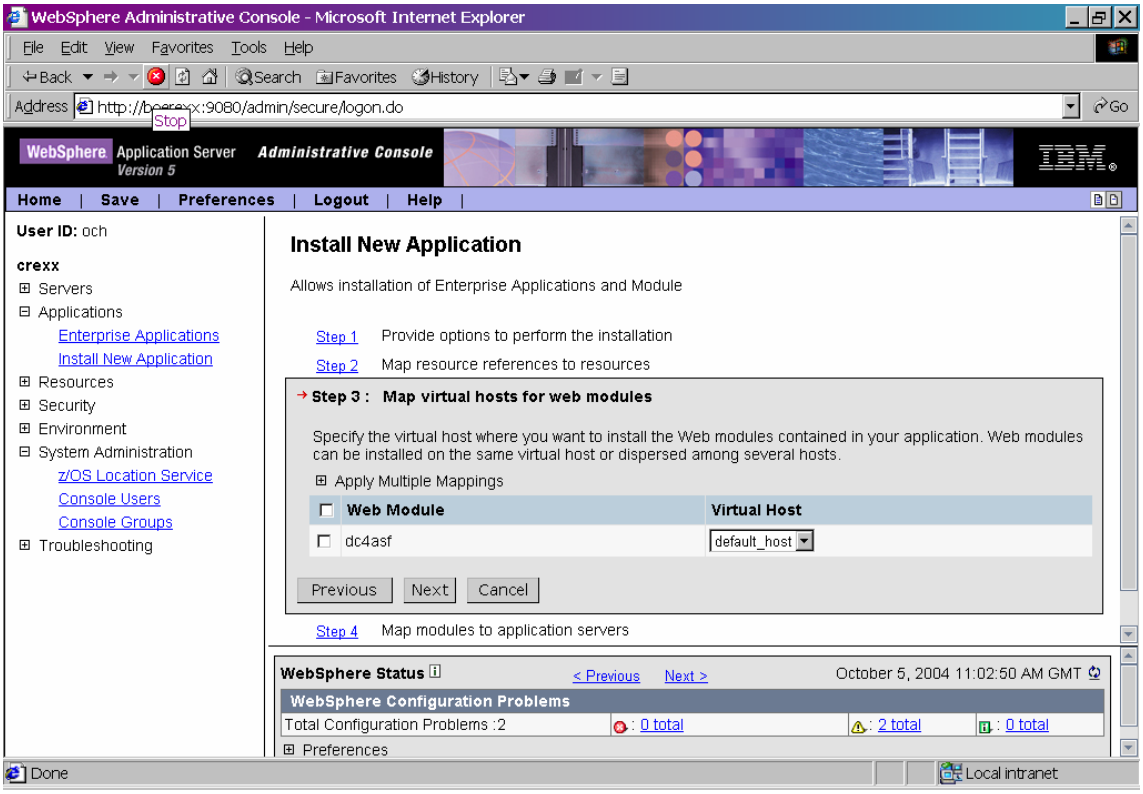
Install new application (Step 2)

Enter **resources/asf/dc4asfinst** for the InstallPath Reference Binding (JNDI Name) and **resources/asf/dc4asfconf** for the ConfigPath Reference Binding (see "Name Space Bindings").



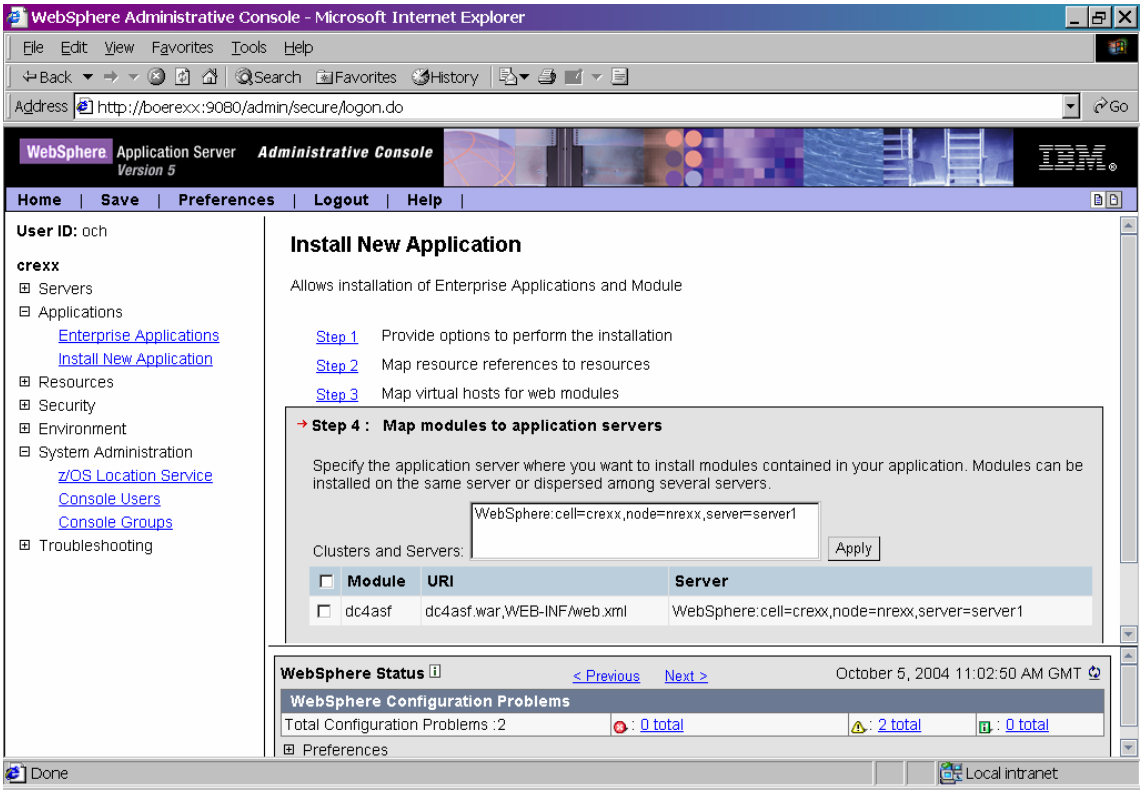
Select Next to finish Step 2 and go to Step 3.

Install new application (Step 3)



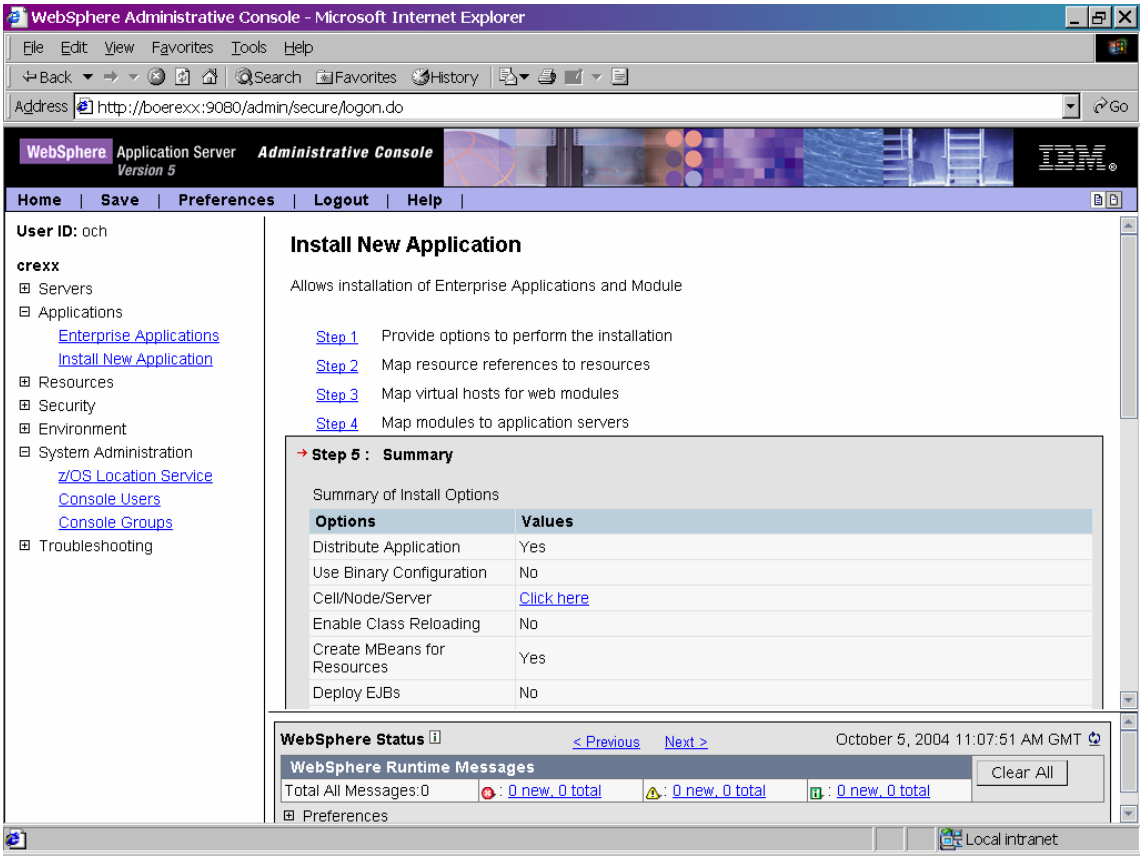
No updates are required for Step 3. Select Next to go to Step 4.

Install new application (Step 4)



No updates are required for Step 4. Select Next to go to Step 5.

Install new application (Step 5)



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

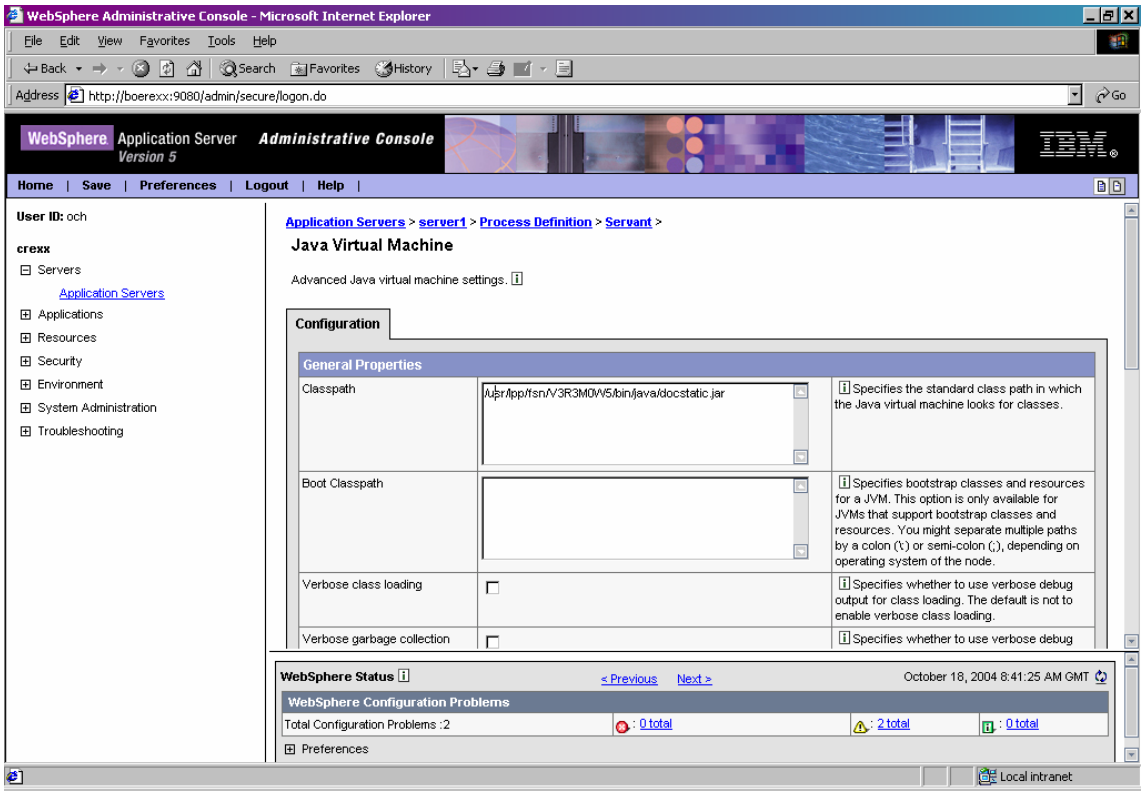
Open Applications > Enterprise Application, select your dc4asf application, and select Start to start the application.

4 Spellcheck Installation

To activate spell check you must set the Classpath variable and define a LIBPATH variable to the WAS environment.

Open Servers > Application Servers > *server name* > Process Definition > Servant > Java Virtual Machine

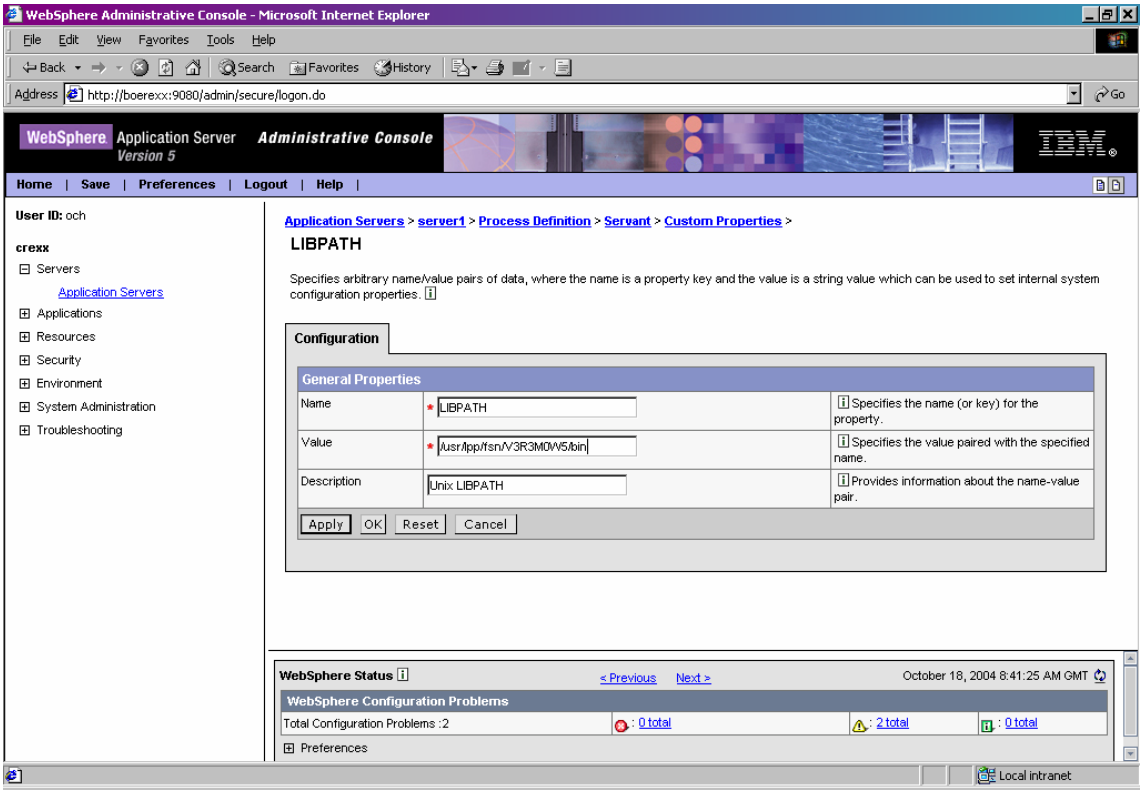
Add the file *docstatic.jar* delivered with DC4ASF to the Classpath (/usr/lpp/fsn/V3R3M0W5/bin/java/docstatic.jar).



Select Apply first and then select OK.

Open Servers > Application Servers > *server name* > Process Definition > Servant > Environment Entries

Create the variable **LIBPATH**. Set its value to the Document Connect for ASF shared library path (/usr/lpp/fsn/V3R3M0W5/bin).



Select Apply first and then select OK.

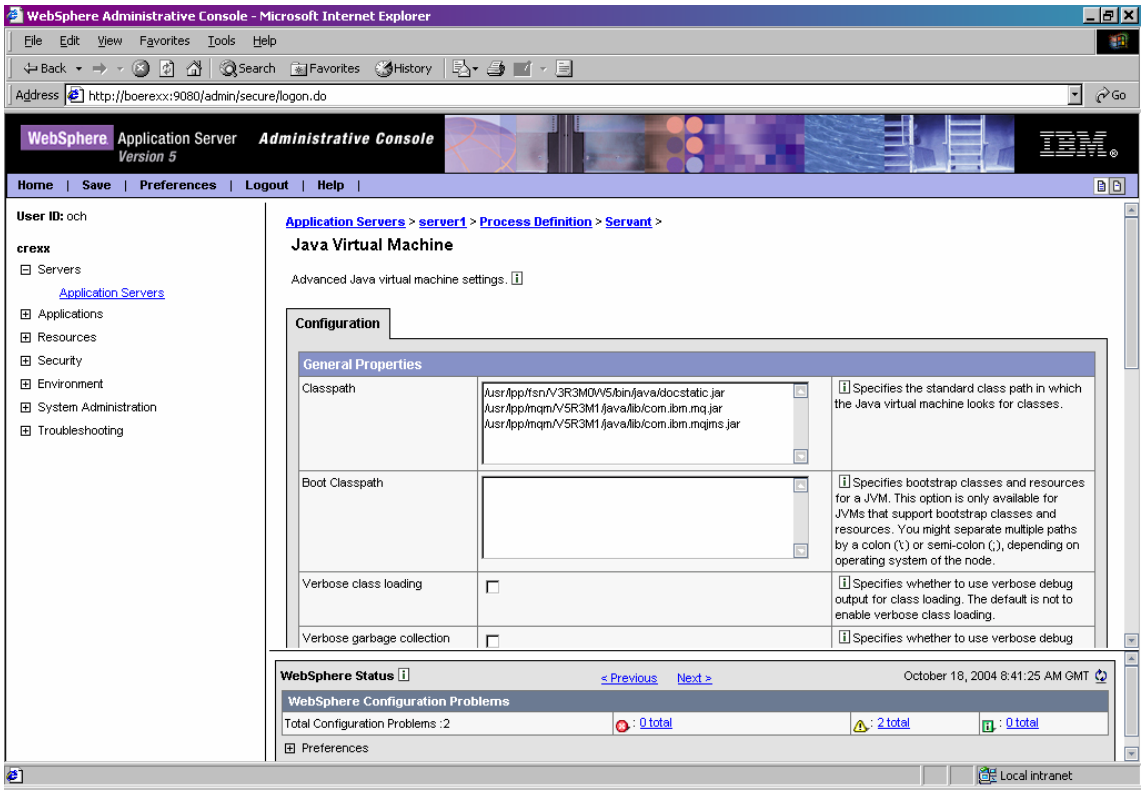
Save the changes to the master configuration.

5 Enable MQ Connection

To enable the MQ connection between server and host you must change the Classpath and the LIBPATH variable in the WAS environment.

Open Servers > Application Servers > *server name* > Process Definition > Servant > Java Virtual Machine

Add the files *com.ibm.mq.jar* and *com.ibm.mqjms.jar* delivered with WebSphere MQ to the Classpath (e.g. /usr/lpp/mqm/V5R3M1/java/lib/com.ibm.mq.jar)

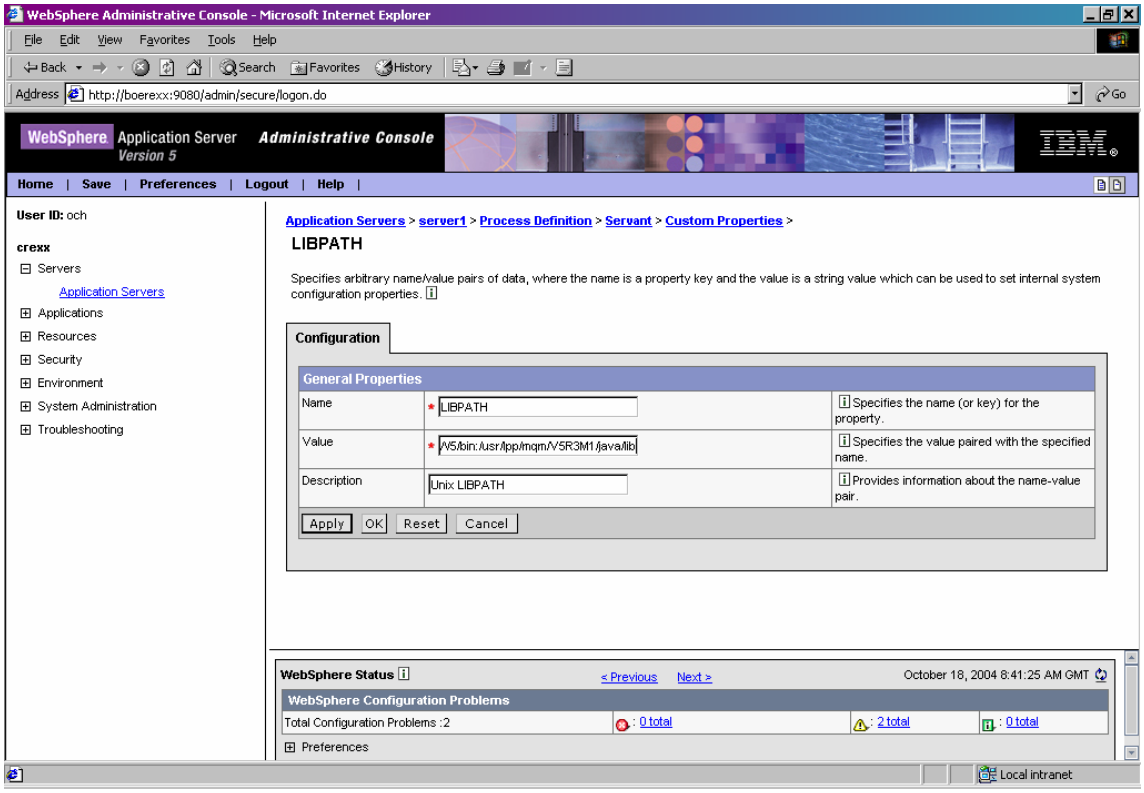


Select Apply first and then select OK.

Open Servers > Application Servers > *server name* > Process Definition > Servant > Environment Entries

Add the WebSphere MQ shared library path (/usr/lpp/mqm/V5R3M1/java/lib) to the value for the variable **LIBPATH**.

Note: Separate the path values with a semicolon.



Select Apply first and then select OK.

Save the changes to the master configuration.

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

6 HTTP Server Changes

Configure the WebSphere PLUGIN

Using Shared Object library "ihs390WAS50Plugin_http.so"

Make sure you have installed the Shared Object (SO) library ihs390WAS50Plugin_http.so. This SO is usually installed with WAS by selecting the HTTP server installation. It resides in the bin directory of the WAS installation.

Modify the configuration file "plugin-cfg.xml"

Generate the plugin configuration file "plugin-cfg.xml" using the WebSphere Administrative Console:

Open Environment > Update Web Server Plugin

Select OK to generate the file plugin-cfg.xml .

Note: Usually the xml file is placed in the config/cells directory of the IBM WebSphere Application Server installation.

Copy the file "plugin-cfg.xml" into the "conf" directory of the IBM HTTP Server.
Open the copy with an editor and modify it as follows:

a) Locate the following string (which may be customized with your installation values):

```
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/*"/>
```

Note:
dc4asf is the context root as described in ”Preparing for the application installation”.

b) Insert the text string "servlet/" before the asterisk:

```
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/servlet/*"/>
```

c) Add the following lines after the line specified in b) above:

```
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/html/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/xsl/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/javascript/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/java/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/css/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/preview/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/DocASFServerConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/DocASFNetworkConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/DocASFNetworkConfigProcessServlet/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asf/DocASFFileServlet/*"/>
```

Note:
You will find these lines in the file plugin-cfg.xml.add delivered with DC4ASF in the /install directory.

d) Save the file

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) Add the following lines:

```
Service /dc4asf/servlet*                                  /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/DocASFFileServlet*                        /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/DocASFServerConfigServlet*                /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/DocASFNetworkConfigServlet*               /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/DocASFNetworkConfigProcessServlet* /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/html/*                                    /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/xsl/*                                     /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/javascript/*                              /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/java/*                                    /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/css/*                                     /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asf/preview/*                                 /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
PASS    /dc4asf/                                          [path_prefix]/usr/fsn/V3R3M0W5/www/*
PASS    /dc4asf/transfer/*                                [path_prefix]/usr/fsn/V3R3M0W5/transfer/*
PASS    /dc4asf/help/*                                    [path_prefix]/usr/fsn/V3R3M0W5/www/help/*
PASS    /dc4asf/helpconfig/*                              [path_prefix]/usr/fsn/V3R3M0W5/www/helpconfig/*
PASS    /dc4asf/images/*                                  [path_prefix]/usr/fsn/V3R3M0W5/www/images/*
PASS    /dc4asf/custom/*                                  [path_prefix]/usr/fsn/V3R3M0W5/www/custom/*
PASS    /dc4asf/samples/*                                 [path_prefix]/usr/fsn/V3R3M0W5/www/samples/*
```

Note:
You will find these lines in the file http.conf.add delivered with DC4ASF in the /install directory.

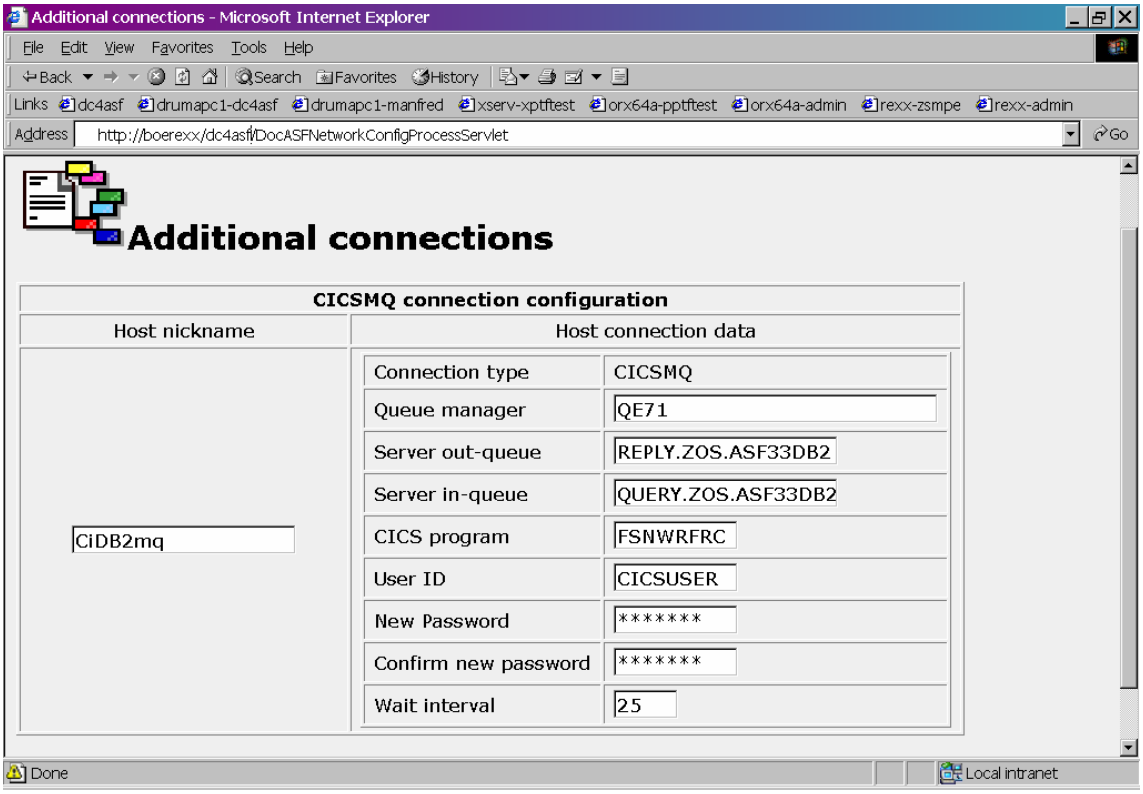
c) Restart the HTTP server to activate the changes.

7 Configure the Connections

To define the server-host connections in DocNetworkConfiguration.xml invoke the servlet application "DocASFNetworkConfigServlet" using the Microsoft Internet Explorer.
Specify your MQ queue manager, the input queue, the output queue, the CICS program name (must be FSNWRFRC), the defined User ID used for CICS 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.



Stop and Start your application using the WebSphere Administrative Console.

8 Installing a second Application

The steps above describe how to install the application dc4asf in WebSphere Application Server.

IBM recommends that you generate a second application instance of Document Connect for ASF for use by administrators, for example "dc4asftest".

To create second instance, use the script "docinstusr" which is available in directory /usr/lpp/fsn/V3R3M0W5/bin.

When running this script, specify an alternate installation path, for example

/usr/fsn/V3R3M0W5/dc4asftest

Continue with the following steps using the WebSphere Administrator Console:

1. Add two name space bindings as described in "Name Space Bindings" with different values, for example:

Binding Identifier	DC4ASFINSTTEST
Name in Name Space	resources/asf/dc4asfinsttest
Path	/usr/fsn/V3R3M0W5/dc4asftest

Binding Identifier	DC4ASFCONFTEST
Name in Name Space	resources/asf/dc4asfconftest
Path	/usr/fsn/V3R3M0W5/dc4asftest/config/DocConfiguration.xml

2. Perform the steps described in "Installation of the application" with the following changes:

   In the paragraph "Preparing for the application installation", specify the following path for the location of the war file:

   /usr/fsn/V3R3M0W5/dc4asftest/war/dcf4asf.war

   and specify the following for context root:

   /dc4asftest

   In the paragraph "Install new application (Step 1)", use "dc4asftest" as the application name

   In the paragraph "Install new application (Step 2)", use the new name space bindings:

   resources/asf/dc4asfinsttest

   resources/asf/dc4asfconftest

Now perform the steps described in “HTTP Server Changes“ using the context root /dc4asftest.

The file plugin-cfg.xml will then contain the following lines:

```
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/servlet/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/html/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/xsl/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/javascript/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/java/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/css/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/preview/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/DocASFServerConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/DocASFNetworkConfigServlet/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/DocASFNetworkConfigProcessServlet/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/DocASFFileServlet/*"/>
```

The file http.conf will then contain the following lines:

```
Service /dc4asftest/servlet*                          /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/DocASFFileServlet*                /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/DocASFServerConfigServlet*        /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/DocASFNetworkConfigServlet*       /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/DocASFNetworkConfigProcessServlet* /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/html/*                            /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/xsl/*                             /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/javascript/*                      /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/java/*                            /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/css/*                             /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
Service /dc4asftest/preview/*                         /local/WebSphere/V5R1M0/bin/ihs390WAS50Plugin_http.so:service_exit
PASS    /dc4asftest/                                  [path_prefix]/usr/fsn/V3R3M0W5/dc4asftest/www/*
PASS    /dc4asftest/transfer/*                        [path_prefix]/usr/fsn/V3R3M0W5/dc4asftest/transfer/*
PASS    /dc4asftest/help/*                            [path_prefix]/usr/fsn/V3R3M0W5/dc4asftest/www/help/*
PASS    /dc4asftest/helpconfig/*                      [path_prefix]/usr/fsn/V3R3M0W5/dc4asftest/www/helpconfig/*
PASS    /dc4asftest/images/*                          [path_prefix]/usr/fsn/V3R3M0W5/dc4asftest/www/images/*
PASS    /dc4asf/custom/*                              [path_prefix]/usr//fsn/V3R3M0W5/dc4asftest/www/custom/*
PASS    /dc4asf/samples/*                             [path_prefix]/usr/fsn/V3R3M0W5/dc4asftest/www/samples/*
```

9 Applying Maintenance

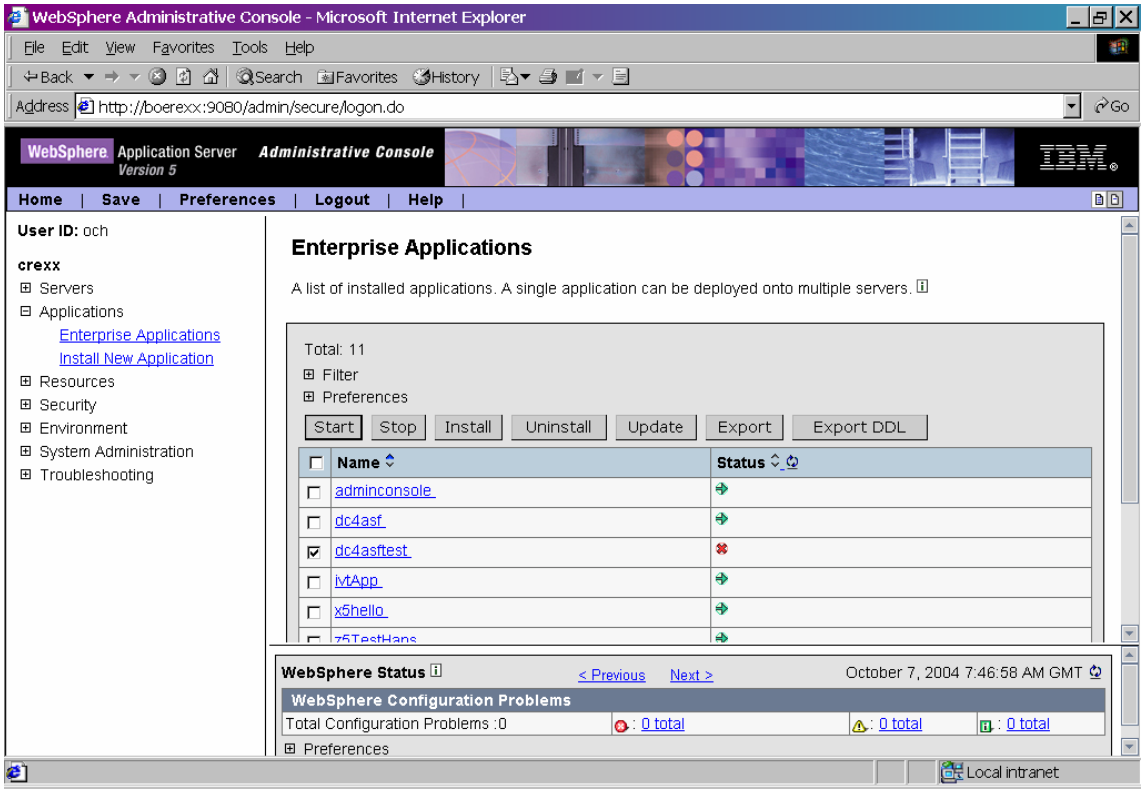
Use SMP/E to apply the PTF containing new tar file(s).
SMP/E will copy the tar file(s) into directory /usr/lpp/fsn/V3R3M0W5/IBM and will explode the content of the tar file(s) into /usr/lpp/fsn/V3R3M0W5/config …/bin … /resources … /war … etc.

Use the script file “docinstusr” available in directory /usr/lpp/fsn/V3R3M0W5/bin
to apply the war file to the appropriate application, for example dc4asftest.

Open the WebSphere Administrative Console:

Open Application > Enterprise Application

Select application “dc4asftest” and select Update.

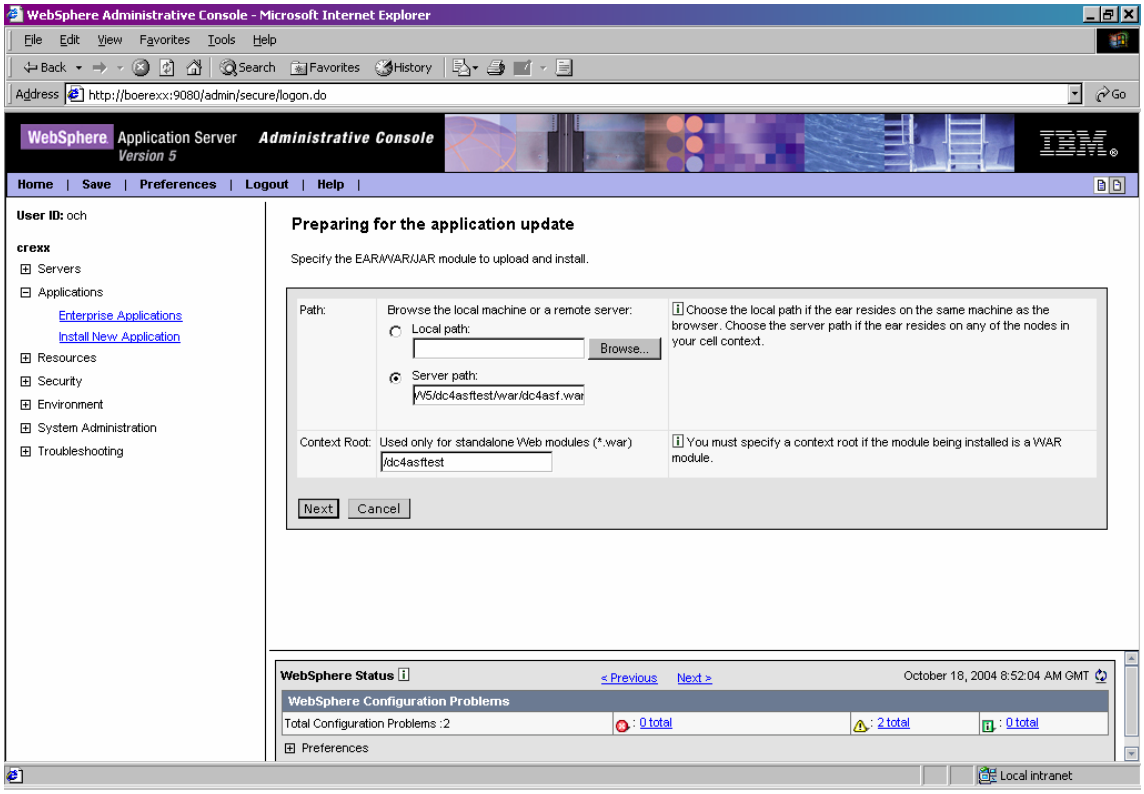


Enter the path (local path or server path) where the new DC4ASF war file is located:

/usr/fsn/V3R3M0W5/dc4asftest/war/dc4asf.war

Enter the context root: /dc4asftest

Note:
The context root must be the same as the context root entered during installation (see “Preparing for the application installation”). If you do not remember the context root of your installation, check the file plugin-cfg.xml in the directory /SYSTEM/etc/:
…
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/servlet/*"/>
<Uri AffinityCookie="JSESSIONID" AffinityURLIdentifier="jsessionid" Name="/dc4asftest/html/*"/>
…



On each the next panels select Next and finally select Finish. When the update of the application has completed, save the master configuration.

Open Applications > Enterprise Application and select your application dc4asftest. Select Stop and then select Start to restart the application.

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