

NetUI: JSF Integration

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1. Introduction

This sample shows how to integrate JSF (Java Server Faces) into your NetUI web app; specifically, how to use JSF pages as the View tier with NetUI Page Flow as the Controller tier. For more information see [Java Server Faces](#).

2. Running the Sample on Tomcat 5

The following instructions explain how to run the sample on Tomcat 5. The sample will run on other web containers, but we have chosen Tomcat 5 for convenience.

2.1. To Set up the Environment

Before proceeding, complete all of the necessary and optional steps in the following topic: [Beehive Installation and Setup](#)

Open a command shell and confirm that you have set following variables:

- ANT_HOME
- JAVA_HOME
- CATALINA_HOME

Also ensure that the following elements are on your PATH:

- ANT_HOME/bin
- JAVA_HOME/bin

2.2. To Copy the Application to a Project Folder (Optional Step)

To keep your Beehive distribution directory pristine, you should copy the folder <BeehiveRoot>/samples/netui-jsf to another location before proceeding.

Note:

<BeehiveRoot> refers to the top-level directory of your Beehive installation. A typical value for <BeehiveRoot> would be /apache/apache-beehive-1.0.

The following instructions assume that you have copied the folder netui-jsf into the directory /beehive_projects, resulting in the following directory structure.

```
/
  beehive_projects
    netui-jsf
```

Note:

```
Strictly speaking, you do not need to copy the netui-jsf directory to another location. If you wish to leave the
netui-jsf directory in place, in the instructions below you must replace occurrences of the path element
/bee hive_projects with this path element: <BeehiveRoot>/samples.
For example, to build the sample, run the following Ant command:
ant -f <BeehiveRoot>/samples/netui-jsf/src/WEB-INF/build.xml clean build war
To delete the sample's build directory, run the clean target:
ant -f <BeehiveRoot>/samples/netui-jsf/src/WEB-INF/build.xml clean
```

2.3. To Download a JSF Implementation

Download and install one of the following JSF implementations:

- [MyFaces v1.0.9 or later](#)
- [JSF Reference Implementation v1.1_01](#)

2.4. To Edit the build.properties File

In this section you will edit the build.properties file--the file that sets the build-related properties for your web application.

Open the file

/bee hive_projects/netui-jsf/WEB-INF/src/build.properties in a text editor.

Edit the file so that the bee hive.home property points to the top-level folder of your bee hive installation.

Also uncomment one of the properties myfaces.dir or jsf-ri.dir. Point the uncommented property at the appropriate directory.

For example, if your bee hive installation resides at /apache/apache-bee hive-1.0 and you have installed the JSF Reference Implementation, then your build.properties file would appear as follows.

```
bee hive.home=/apache/apache-bee hive-1.0

servlet-api.jar=${os.CATALINA_HOME}/common/lib/servlet-api.jar
jsp-api.jar=${os.CATALINA_HOME}/common/lib/jsp-api.jar

context.path=netui-jsf

# TODO:
# if using MyFaces, uncomment the 'myfaces.dir' property and set it to a
# directory that contains
# myfaces.jar (MyFaces v1.0.9 or later).
#myfaces.dir=

# TODO:
```

```
# If using the JavaServer Faces Reference Implementation, uncomment the
'jsf-ri.dir' property and
# set it to a directory that contains jsf-api.jar and jsf-impl.jar (JSF RI
v1.1_01).
jsf-ri.dir=/java/jsf-1_1_01/lib
```

Note:

Windows users must use forwardslashes (/) not backslashes (\) in the build.properties file.

2.5. To Compile the Application

2.5.1. ...If Using JSF Reference Implementation

If you are using the JSF Reference Implementation, enter the following Ant command:

```
ant
-f /beehive_projects/netui-jsf/WEB-INF/src/build.xml
clean
build-jsf-ri
war
```

Copy and Paste version:

```
ant -f /beehive_projects/netui-jsf/WEB-INF/src/build.xml clean build-jsf-ri
war
```

2.5.2. ...If Using MyFaces

If you are using MyFaces, enter the following Ant command:

```
ant
-f /beehive_projects/netui-jsf/WEB-INF/src/build.xml
clean
build-myfaces
war
```

Copy and Paste version:

```
ant -f /beehive_projects/netui-jsf/WEB-INF/src/build.xml clean
build-myfaces war
```

Both of these targets build a WAR file and save it to:

```
/beehive_projects/netui-jsf.war
```

2.6. To Start Tomcat

To start Tomcat, run the following command:

```
%CATALINA_HOME%\bin\startup.bat
```

On non-Windows systems:

```
$CATALINA_HOME/bin/startup.sh
```

2.7. To Deploy to Tomcat

To deploy the samples, copy the WAR file to Tomcat's webapps directory.

On Windows:

```
copy C:\beehive_projects\netui-jsf.war %CATALINA_HOME%\webapps /Y
```

Note:

On Windows, there are file-locking issues that Tomcat versions 5.5.x and above are sensitive to. In particular, any web application that uses Struts will **fail to redeploy** if you copy in a new .war file as described here. The Commons Digester team is adding a workaround for the issue (see [this bug](#)), but in the meantime, you can work around it with the `antiResourceLocking` option in Tomcat. Just add a file called `context.xml` in a directory called `META-INF` inside the web application directory before building (so it will end up as `META-INF/context.xml` in your `controls_tutorial.war`):

```
<?xml version="1.0" encoding="UTF-8"?>
<Context antiResourceLocking="true">
</Context>
```

Everywhere else:

```
cp /beehive_projects/netui-jsf.war $CATALINA_HOME/webapps
```

2.8. Running

To browse the JSF sample, visit the following link in a browser:

<http://localhost:8080/netui-jsf>

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