

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 /beehive_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

`/beehive_projects/netui-jsf/WEB-INF/src/build.properties` in a text editor.

Edit the file so that the `beehive.home` property points to the top-level folder of your beehive 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 beehive installation resides at `/apache/apache-beehive-1.0` and you have installed the JSF Reference Implementation, then your `build.properties` file would appear as follows.

```
beehive.home=/apache/apache-beehive-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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