potix

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ZK

The Quick Start Guide

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1. Installation

Install ZK on Tomcat

1. Download Tomcat from `http://tomcat.apache.org` and install it, if you haven't installed it yet.

2. Stop Tomcat.

3. Unzip `zk-1.0.0.zip` or `zk-1.0.0.tar.gz`

4. Copy `dist/lib/*.jar` to `$TOMCAT_HOME`[1]`/shared/lib`

5. Copy `dist/lib/ext/*.jar` to `$TOMCAT_HOME/shared/lib`

6. [Optional] Copy `dist/lib/zkforge/*.jar to $TOMCAT_HOME`[2]`/shared/lib`
   It depends whether you need components from ZK Forge[3], such as FCKeditor (http://www.fckeditor.net) and DOJO (http://dojotoolkit.org/).

7. Re-start Tomcat.

8. Deploy `demo/bin/zkdemo.war` to Tomcat. It can be done by use of the Tomcat manager, or by copying it to `$TOMCAT_HOME/webapps` directly. If you prefer copying directly, you have to stop Tomcat first.

9. Browse to `http://localhost/zkdemo/userguide` or `http://localhost:8080/zkdemo/userguide`, depending on your configuration.

Install ZK on Jetty

1. Download Jetty from `http://www.mortbay.org/jetty/index.html` and install it[4], if you haven't installed it yet.

2. Stop Jetty.

3. Unzip `zk-1.0.0.zip` or `zk-1.0.0.tar.gz`

4. Copy `dist/lib/*.jar` to `$JETTY_HOME`[5]`/ext`

1 $TOMCAT_HOME is where you installed Tomcat.
2 $TOMCAT_HOME is where you installed Tomcat.
3 ZK Forge (http://zkforge.sourceforge.net) is a collection of components from the community collaboration.
4 Refer to http://www.mortbay.org/jetty/tut/GettingStarted.html

5. Copy `dist/lib/ext/*.jar` to `$JETTY_HOME/ext`

6. [Optional] Copy `dist/lib/zkforge/*.jar to $JETTY_HOME/ext`
   It depends whether you need component from ZK Forge.

7. Deploy `demo/bin/zkdemo.war` to Jetty by copying it to `$JETTY_HOME/webapps` directly.

8. Start Jetty.

9. Browse to `http://localhost/zkdemo/userguide` or `http://localhost:8080/zkdemo/userguide`, depending on your configuration.

Deploy your Application as a WAR file or an EAR file

There are two ways to make your Web application ready to use ZK. First, copy `dist/lib/*.jar`, `dist/lib/zkforge/*.jar`, and `dist/lib/ext/*.jar` to the class-path of the Web or JavaEE container as mentioned in the above sections.

Second, you could bundle them with the WAR or EAR file as follows.

- If your application is a WAR file, copy `dist/lib/*.jar`, `dist/zkforge/*.jar`, and `dist/lib/ext/*.jar` from `zk-1.0.0.zip` to the `/WEB-INF/lib` directory of your WAR file.

- If your application is an EAR file, copy `dist/lib/*.jar`, `dist/zkforge/*.jar`, and `dist/lib/ext/*.jar` from `zk-1.0.0.zip` to the root directory of your EAR file.

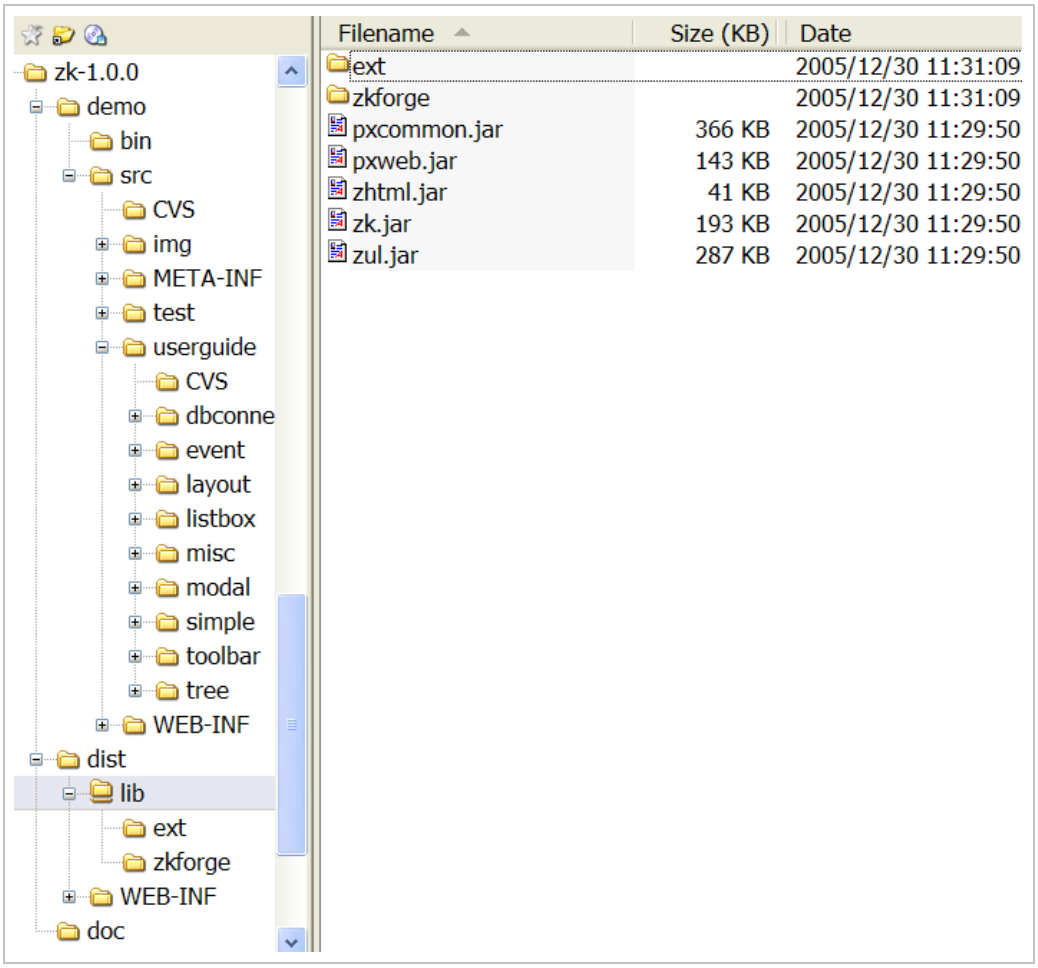
Working with MySQL[6]

To open the connection under zscript, you have to put MySQL JDBC driver (mysql-connector-*.jar) under the same directory with ZK libraries (zk.jar and others). For example, if you prefer to put ZK libraries under $TOMCAT_DIR/shared/lib, you have to put MySQL JDBC driver under $TOMCAT_DIR/shared/lib, too.

5 $JETTY_HOME is where you installed Jetty.
6 http://ww.mysql.com

2. The Content of Distribution

This chapter describes the content of zk-1.0.0.zip.



demo

This directory holds the demo codes, including executable and source codes.

demo/bin

This directory holds the executable, zkdemo.war.

demo/src

This directory holds the source codes of demo and samples.

demo/src/userguide

This directory holds the source codes of the live demo.

demo/src/test

This directory holds the source codes for testing ZK. It explores more ZK features.

demo/src/WEB-INF/web.xml

The file is a sample how to configure ZK for an application.

doc

This directory holds the documents including Quick Start Guide and User Guide.

dist/lib

This directory holds the libraries required to run ZK.

dist/lib/zkforge

This directory holds the components from ZK Forge, such as FCKeditor and Dojo. It is optional depending on whether you need them.

dist/lib/ext

This directory holds the external libraries required to run ZK. Since these libraries are common, you might have installed them in your container.

dist/WEB-INF

This directory holds the TLD files that are useful if you use JSP with ZK.

3. My First ZK Application

Prepare WEB-INF/web.xml

Copy or merge the following content to the web.xml in the WEB-INF directory in your application. This step must be done once each time you created a new Web applications. Then, what you need to do is to copy files with .zul or .zhtml extension to the proper directories in your Web applications.

```
<web-app version="2.4" xmlns="http://java.sun.com/xml/ns/j2ee"
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
 xsi:schemaLocation="http://java.sun.com/xml/ns/j2ee
http://java.sun.com/xml/ns/j2ee/web-app_2_4.xsd">

      <!-- /// -->
      <!-- DSP -->
      <servlet>
            <description><![CDATA[
The servlet loads the DSP pages.
            ]]></description>
            <servlet-name>dspLoader</servlet-name>
            <servlet-
class>com.potix.web.servlet.dsp.InterpreterServlet</servlet-class>
      </servlet>
      <servlet-mapping>
            <servlet-name>dspLoader</servlet-name>
            <url-pattern>*.dsp</url-pattern>
      </servlet-mapping>
      <!-- /// -->

      <!-- //// -->
      <!-- ZK -->
      <listener>
            <description>Used to cleanup when a session is
destroyed</description>
            <display-name>ZK Session Cleaner</display-name>
            <listener-
class>com.potix.zk.ui.http.HttpSessionListener</listener-class>
      </listener>
      <servlet>
            <description>ZK loader for evaluating ZK pages</description>
            <servlet-name>zkLoader</servlet-name>
            <servlet-class>com.potix.zk.ui.http.DHtmlLayoutServlet</servlet-
class>
```

```
            <!-- Must. Specifies URI of the update engine
            (DHtmlUpdateServlet). -->
            <init-param>
                  <param-name>update-uri</param-name>
                  <param-value>/zkau</param-value>
            </init-param>
            <load-on-startup>1</load-on-startup><!-- MUST -->
      </servlet>
      <servlet-mapping>
            <servlet-name>zkLoader</servlet-name>
            <url-pattern>*.zul</url-pattern>
      </servlet-mapping>
      <servlet-mapping>
            <servlet-name>zkLoader</servlet-name>
            <url-pattern>*.zhtml</url-pattern>
      </servlet-mapping>
      <servlet>
            <description>The asynchronous update engine for ZK</description>
            <servlet-name>auEngine</servlet-name>
            <servlet-class>com.potix.zk.au.http.DHtmlUpdateServlet</servlet-
class>
      </servlet>
      <servlet-mapping>
            <servlet-name>auEngine</servlet-name>
            <url-pattern>/zkau/*</url-pattern>
      </servlet-mapping>
      <!-- //// -->

      <!-- MIME mapping -->
      <mime-mapping>
            <extension>dsp</extension>
            <mime-type>text/html</mime-type>
      </mime-mapping>
      <mime-mapping>
            <extension>gif</extension>
            <mime-type>image/gif</mime-type>
      </mime-mapping>
      <mime-mapping>
            <extension>html</extension>
            <mime-type>text/html</mime-type>
      </mime-mapping>
      <mime-mapping>
            <extension>htm</extension>
            <mime-type>text/html</mime-type>
      </mime-mapping>
      <mime-mapping>
            <extension>jpeg</extension>
            <mime-type>image/jpeg</mime-type>
      </mime-mapping>
```

```
	<mime-mapping>
		<extension>jpg</extension>
		<mime-type>image/jpeg</mime-type>
	</mime-mapping>
	<mime-mapping>
		<extension>js</extension>
		<mime-type>application/x-javascript</mime-type>
	</mime-mapping>
	<mime-mapping>
		<extension>png</extension>
		<mime-type>image/png</mime-type>
	</mime-mapping>
	<mime-mapping>
		<extension>txt</extension>
		<mime-type>text/plain</mime-type>
	</mime-mapping>
	<mime-mapping>
		<extension>xml</extension>
		<mime-type>text/xml</mime-type>
	</mime-mapping>
	<mime-mapping>
		<extension>zhtml</extension>
		<mime-type>text/html</mime-type>
	</mime-mapping>
	<mime-mapping>
		<extension>zul</extension>
		<mime-type>text/html</mime-type>
	</mime-mapping>

	<welcome-file-list>
		<welcome-file>index.zul</welcome-file>
		<welcome-file>index.zhtml</welcome-file>
		<welcome-file>index.html</welcome-file>
		<welcome-file>index.htm</welcome-file>
		<welcome-file>index.dsp</welcome-file>
	</welcome-file-list>
</web-app>
```

My First Hello World

Create a file called hello.zul with the following content. Then, you could use the browser to see the result, say http://localhost:8080/zkdemo/hello.zul.

```
<window title="My First window" border="normal" width="200px">
	Hello, World!
</window>
```

Then, the result is depicted as follow.

Notice that, though the content of hello.zul is very similar to XUL[7], it is actually written in ZUML. ZK Loader parse it into a valid HTML page which can be interpreted correctly by a regular browser, such as Internet Explorer and Mozilla Firefox. Refer to the Developer's Guide for more details.

7 http://xul.sourceforge.net/mozilla.html