KonaKart Portlet Installation for Liferay

14th July 2013

DS Data Systems (UK) Ltd.,
9 Little Meadow
Loughton, Milton Keynes
Bucks
MK5 8EH
UK

KonaKart Portlets

Portlets can be created for both the store-front application and the admin application. They consist of WAR files that can be imported into Liferay.

Note that the Admin Application portlet implements a very simple Single-Sign-On mechanism which is not secure if the Admin Application can be reached directly through a URL rather than just through Liferay, since it disables password checking and uses the roles defined for the Liferay user. A more sophisticated SSO mechanism must be implemented if the Admin Application is made available outside of a restricted environment. The source code files for the Admin Portlet may be found under KonaKart\custom\konakartadmin_portlet\liferay\src.

Install KonaKart

In order to create the Liferay portlets you need to first install the KonaKart in the normal fashion. Follow the instructions in the User Guide for this purpose. (Typically this will simply involve running the relevant KonaKart installer(s)).

Create the WAR file

Create a command line window and navigate to the custom directory under your KonaKart installation:

On Windows:

```
C:\Users\Fred> cd "c:\Program Files\KonaKart\custom"
```

On Linux:

```
fred@luton:~$ cd /home/fred/konakart/custom/
```

Note that ANT is provided in the download package which is sufficient for building the KonaKart WAR files for Liferay.

You can check the commands available to you using "**kkant -p**", for example:

```
C:\Program Files\KonaKart\custom>.\bin\kkant -p | findstr liferay
 make_admin_liferay_portlet_war  Create the konakartadmin portlet war for Liferay
 make_liferay_portlet_war        Create the konakart portlet war for Liferay
```

Note above there are two main Liferay targets. One is for the application (**make_liferay_portlet_war**) and one for the Admin Application (**make_admin_liferay_portlet_war**).

For example, to create the konakart.war for Liferay choose the **make_liferay_portlet_war** ANT target as follows:

```
C:\Program Files\KonaKart\custom>.\bin\kkant make_liferay_portlet_war -DLR606=true
                                                                      -DnoAXIS=true
Buildfile: build.xml

clean_portlet_war:
     [echo] Cleanup portlet WARs...
     [echo] Cleanup portlet classes...
     [echo] Cleanup portlet WAR staging area...

make_liferay_portlet_war:
    [mkdir] Created dir:
            C:\Program Files\KonaKart\custom\portlet_war
    [mkdir] Created dir:
            C:\Program Files\KonaKart\custom\konakart_portlet\stage\konakart
    [mkdir] Created dir:
            C:\Program Files\KonaKart\custom\konakart_portlet\stage\konakart\WEB-INF\jsp
     [echo] Lay out the WAR in the staging area
```

```
     [echo] Copy (almost) the whole konakart webapp to staging area
     [copy] Copying 834 files to
            C:\Program Files\KonaKart\custom\konakart_portlet\stage\konakart
     [copy] Copied 35 empty directories to 1 empty directory under
            C:\Program Files\KonaKart\custom\konakart_portlet\stage\konakart
     [echo] Copy the jars reqd for the portlet to staging area
     [copy] Copying 2 files to
            C:\Program Files\KonaKart\custom\konakart_portlet\stage\konakart\WEB-INF\lib
     [echo] Copy the config files reqd for the portlet to staging area
     [copy] Copying 6 files to
            C:\Program Files\KonaKart\custom\konakart_portlet\stage\konakart\WEB-INF
     [echo] Filter the JSPs to staging area for the portlet WAR
     [echo] Filter the web.xml to staging area for the portlet WAR
     [echo] Filter the struts-config.xml to staging area for the portlet WAR

adjustAppPortletForLR605:

adjustAppPortletForLR606:
     [echo] Make adjustments to Application Portlet WAR for Liferay 6.0.6
     [echo] Copy the IterateTag patch to staging area
     [copy] Copying 1 file to
            C:\Program Files\KonaKart\custom\konakart_portlet\stage\konakart\WEB-
INF\classes

adjustAppPortletForLR611:

adjustAppPortletForAXIS:
     [echo] Make adjustments to Application Portlet WAR to exclude AXIS

adjustAppPortletForJBoss:

adjustAppPortletForJBossLiferay:

adjustAppPortletForJBossLiferay606:

adjustAppPortletForJBossLiferay611:

adjustAppPortletForKKDemoSite:
     [echo] Create portlet konakart.war
      [war] Building war: C:\Program Files\KonaKart\custom\portlet_war\konakart.war

BUILD SUCCESSFUL
```

Do not be concerned that your build matches the number of files precisely because this can change depending on your version and configuration.

For convenience some common adjustments to the jars that are included can be made by setting the **-DLRnnn** parameter for the applicable Liferay version. Examples are -**DLR605**, -**DLR606**, -**DLR611, -DLR6120** (for Liferay 6.1.20). For other versions of Liferay it is possible that other adjustments will be required.

Note for **JBoss** users. Add the "**-Djboss=true**" argument as follows: (note that the "jboss" parameter must be lowercase).

```
C:\Program Files\KonaKart\custom>.\bin\kkant make_admin_liferay_portlet_war -Djboss=true
```

Similarly, but different is creating a WAR for the **Jboss/Liferay bundle**. Add the "-**Djbossliferay=true**" argument as follows:

```
/home/brian/konakart/custom>./bin/kkant make_admin_liferay_portlet_war
                                                        -Djbossliferay=true
```

When creating a WAR for the **Jboss/Liferay 6.0.6 bundle**. Add the "**-Djbossliferay606=true**" argument as follows:

```
/home/brian/konakart/custom>./bin/kkant make_admin_liferay_portlet_war
```

```
                              -Djbossliferay606=true
                              -DLR606=true
                              -DnoAXIS=true
```

Enter all the commands above on one line only.

Note the various "**adjustForJBossLiferay**" targets in the build.xml file, for example:

```
<target name="adjustAdminPortletForJBossLiferay" if="forJBbossLiferay">
    <echo message="Make adjustments for JBoss-Liferay" />
    <delete failonerror="true">
        <fileset
            dir="${custom.home}/konakartadmin_portlet/stage/konakartadmin/WEB-INF/lib">
          <include name="xercesImpl-*.jar" />
          <include name="xml-apis-*.jar" />
          <include name="portal-kernel.jar" />
          <include name="portal-service.jar" />
          <include name="portlet.jar" />
          <include name="activation.jar" />
          <include name="mail.jar" />
          <include name="quartz-*.jar" />
          <include name="commons-logging-*.jar" />

          <!-- Adjust these to suit your own environment -->
          <include name="db2*.jar" />
          <include name="jtds*.jar" />
          <include name="postgre*.jar" />
          <include name="ojdbc14.jar" />
        </fileset>
    </delete>
</target>
```

You can see that the default case is to exclude the jars for DB2, PostgreSQL, Oracle, MS-SQL Server... You may need to adjust this to suit your own environment. We normally include all of the jars but we found that deploying very large WARs with many JARs into Jboss gave us intermittent ZipExceptions hence we tried to cut down the number of JARs in the WAR.

Problems with AXIS?

Some portal systems use a version of AXIS that conflicts with the one in KonaKart. A workaround for this problem is to disable the AXIS web services in your portlet (if you need the web services you can always run them in a servlet container on another machine where the instance doesn't run as a portlet).

A flag can be added to the ANT command to eliminate the WSDD files which in turn will disable the AXIS web services and stop the start-up exception that you get in systems where there is an incompatible version of AXIS.
The flag to use to disable AXIS web services is "-DnoAXIS=true" hence your ANT command line would be:

```
C:\Program Files\KonaKart\custom>.\bin\ant make_admin_liferay_portlet_war -DnoAXIS=true
```

General Notes

Note for IE 8 users running inside Liferay:

Note that this should no longer be a problem from Liferay 6.0.5 and above.

The Admin App does not currently support IE 8 so you either have to run the browser in compatibility mode or enter the following meta information in the head tag of your theme:

```
<meta http-equiv="X-UA-Compatible" content="IE=EmulateIE7" />
```

Theme files are typically located under deploy/ROOT.war/html/themes/ An example of a theme file under this directory is classic/templates/portal_normal.vm

Problems Installing the portlets in Liferay:

Because of the various combinations and permutations of jars used in the various Liferay installation kits (tomcat/jBoss/etc of various versions plus various versions of Liferay itself) and also because we don't know which jars have been placed in common lib directories in these installations we cannot create a perfect WAR for every case. The WARs that are created are a good start – and work fine in most cases – but you may find the installation does not complete successfully.

If your installation fails a common problem is that the jars that Liferay has in its common libs clash with those in the konakart or konakartadmin webapps. In most cases the solution is simply to remove the clashing jars from the konakart or konakartadmin webapp lib directory, recreate the WAR and re-deploy.

Different behavior is exhibited with different Liferay bundles. We found that with the standard konakart / konakartadmin portlet war produced in the KonaKart v5.2.0.0 system, it installed successfully in Liferay 6.0.5 when bundled with either Glassfish, JBoss or Resin but not with Tomcat, Jetty or Geronimo.

For Liferay 6.0.5 + Tomcat 6.0.26 and Liferay 6.0.6 + Tomcat 6.0.29 you must create your konakartadmin portlet war after removing the following jars:

```
WEB-INF/lib/portal-kernel.jar
WEB-INF/lib/portal-service.jar
WEB-INF/lib/portlet.jar
```

All known problems with using KonaKart portlets on Liferay 6.0.5/Tomcat 6.0.26 and Liferay 6.0.6/Tomcat 6.0.29 such as these can be solved by building the portlet WARs using the "**-DLR605=true**" option (see example below) or the "**-DLR606=true**" option appropriate for your version of Liferay:

```
C:\Program Files\KonaKart\custom>.\bin\ant make_liferay_portlet_war
                                          make_admin_liferay_portlet_war
                                          -DnoAXIS=true
                                          -DLR605=true
```

Enter all the commands above on one line only.

Configure Roles for the Admin Portlet

Liferay users are assigned KonaKart Admin App roles based on the names of the Liferay roles. The Liferay role also contains the storeId encoded within the role.

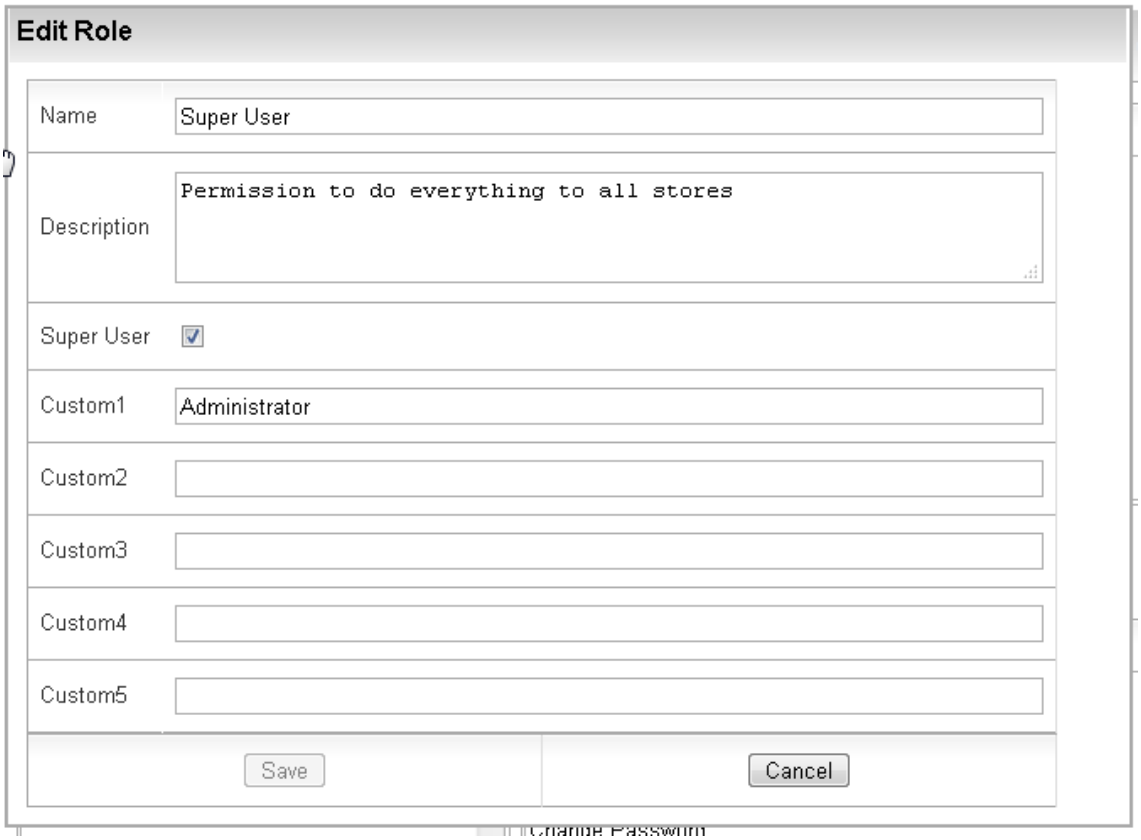
Example Liferay roles:

- administrator
- catalog_store2
- order_store1

In order for KonaKart to recognize the above roles, the custom1 attribute of the matching KonaKart role must contain the name of the Liferay roles (without the storeId), which in this case would be:

- administrator
- catalog
- order

Note that in this case the administrator Liferay role does not have a storeId because it maps to the administrator KonaKart role which gives Super-User privileges so that the user can access all stores.



Note that you won't be able to use the Liferay-based Admin App portlet until you set the role names in the Roles... So there is chicken-and-egg problem here!

There are two alternative solutions.... Either:

1. Run the tomcat-based KonaKart Admin App that you have installed that points to the same database

and edit the roles there.

2. Update the custom1 column in the kk_role table manually using your favorite database query tool.

Note that from KonaKart v5.2.0.0 the Super User role has the Custom1 column set to “Administrator” for convenience.

Note that the customization made in the AdminLoginIntegrationMgr (so that the admin user can be logged in automatically) overrides credential checking and so if the Admin App is available directly from a URL rather than through Liferay then all security will be disabled. In order to implement tighter security, you should use an SSO system and pass a token through to this method so that it can check with the SSO service whether the token is valid.

Import the WAR into Liferay

Using the standard Liferay admin tool, import the konakart / konakartadmin war file and add the application. Liferay seems to decrease the font size so to counteract this, the administrator can set the font size of the portlet. We've found that 1.4em works quite well.