Author: Thushera P. Kawdawatta Virtusa Private Limited. – Sri Lanka

This document will describe some steps to create a new report, integrate with the system, deployment and modifying existing reports and deploy without bouncing tomcat.

## 1. Create a new report

Reporting module uses "Jasper" open source reporting engine. All required libraries are placed in WEB-INF/lob folder. Supporting jasper exporter class is responsible for generate html report for conveniently display the report in html.

Creation of a report is very easy with iReport, a very sophisticated jasper report designer. Latest iReport0.4.0 can be downloaded from <a href="http://ireport.sourceforge.net">http://ireport.sourceforge.net</a>

## 2. Integrate with the system

Integration is simple as adding a entry to anywhere you need a report link with the following url:

<a href="/reports/sahana-report.vx?report="your\_report\_name">My report</a> Where your\_report\_name is the report template name except ".jrxml" extension.

## 3. Deployment

ANT build scripts are provided in "BuildScripts" folder. There are few targets defined to build and deploy. To deploy only the reports just run "ant deploy-reports" target, which will compile and copy the reports to \$TOMCAT\_HOME/reports folder

If we're only modifying and deploy, follow the above step and invoked the following link to remove the cached templates: <a href="http://HOST/reports/flush-reports.vx">http://HOST/reports/flush-reports.vx</a>

This will clear the cache. Now you'll see the modified changes in your reports without bouncing the tomcat.

Reporting module uses tomcat connection pool capabilities. You need to modify sever.xml file to modify the configuration of the pool. Following is a sample entry for your reference. This block must be specified before </Host> block.

```
<parameter>
    <name>factory</name>
    <value>org.apache.commons.dbcp.BasicDataSourceFactory</value>
   </parameter>
   <!-- Maximum number of dB connections in pool. Make sure you
      configure your mysqld max_connections large enough to handle
      all of your db connections. Set to 0 for no limit.
      -->
   <parameter>
    <name>maxActive</name>
    <value>5</value>
   </parameter>
   <!-- Maximum number of idle dB connections to retain in pool.
      Set to -1 for no limit. See also the DBCP documentation on this
      and the minEvictableIdleTimeMillis configuration parameter.
   <parameter>
    <name>maxIdle</name>
    <value>5</value>
   </parameter>
   <!-- Maximum time to wait for a dB connection to become available
      in ms, in this example 10 seconds. An Exception is thrown if
      this timeout is exceeded. Set to -1 to wait indefinitely.
   <parameter>
    <name>maxWait</name>
    <value>10000</value>
   </parameter>
   <!-- MySQL dB username and password for dB connections -->
   <parameter>
    <name>username</name>
    <value>root</value>
   </parameter>
   <parameter>
    <name>password</name>
    <value></value>
   </parameter>
   <!-- Class name for the old mm.mysql JDBC driver - uncomment this entry and comment next
      if you want to use this driver - we recommend using Connector/J though
   <parameter>
     <name>driverClassName</name>
     <value>org.gjt.mm.mysql.Driver</value>
   </parameter>
    -->
   <!-- Class name for the official MySQL Connector/J driver
   com.microsoft.jdbc.sqlserver.SQLServerDriver
   com.mysql.jdbc.Driver
   <parameter>
     <name>driverClassName</name>
     <value>org.gjt.mm.mysql.Driver</value>
   </parameter>
   <parameter>
    <name>url</name>
    <value>jdbc:mysql://192.168.101.14/erms</value>
   </parameter>
 </ResourceParams>
</Context>
```

There is a properties file under WEB-INF/classes/config which specify the data source name.

report.home system property must be specified in the init script or Catalina.sh/Catalina.bat file as follows:

-Dreport.home=\$TOMCAT\_HOME/reports