**REMOTE REPORT EXECUTION**

INSTALLATION MANUAL

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**Description**

Remote Report is an application that allows faculty to obtain reports of their courses in their email addresses based on the information that is already in Sakai system. In this application many technologies work together, namely:

* JSP: The web page that the users access.
* JQuery / Ajax web service request: This is to make a request to the Current User and Membership RESTful direct web services from the browser.
* Axis Web Service: This is to connect the JSP with Sakai in order to get the course list.
* XMLRPC: Since the JSP pages are located in a Linux server and the Excel macro has to be executed in a Windows server, it is necessary to do an RPC call from the Linux server to the Windows server to execute the macro via the batch process.
* Batch file: This file specifies the process that coordinates the calls to the Excel Macro, the compression of the generated PDF files and the mail sending.
* Excel Macro: Is the core macro that generates the report.

**Installation Steps**

**Step 1**

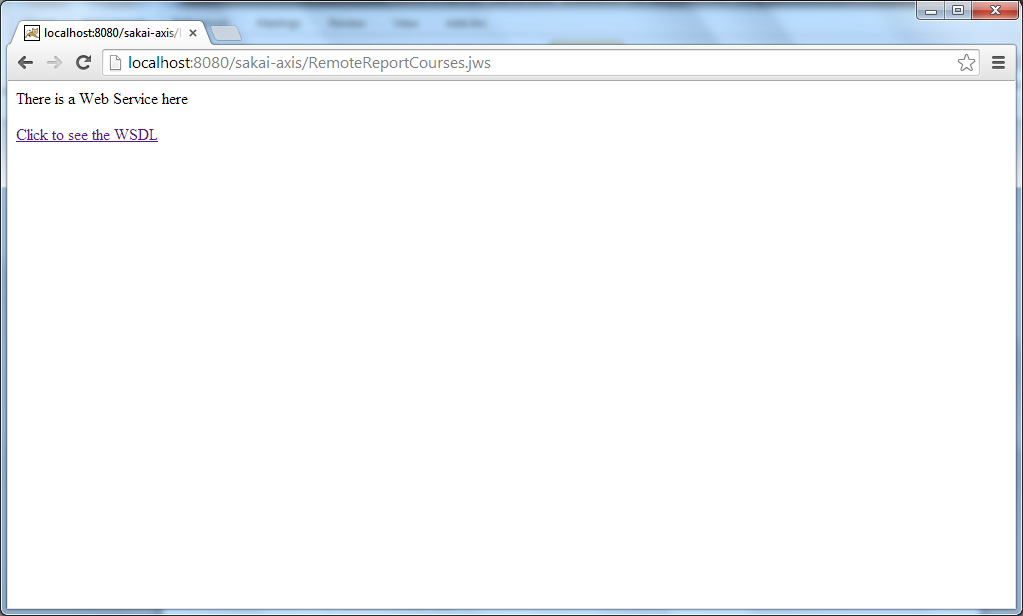
Locate the CATALINA\_HOME where Sakai is installed, and then copy the file ***sakai\RemoteReportCourses.jws*** in:

CATALINA\_HOME\webapps\sakai-axis\

To verify that the web service is working properly access:

http://*SERVER\_WITH\_SAKAI:PORT*/sakai-axis/RemoteReportCourses.jws

You should see something like this:



Then click to see the WSDL and you should see an XML page. Note that it is not necessary to restart Tomcat since Axis JWS files do hot-deployment (as JSP pages).

**Step 2**

In the same CATALINA\_HOME of the previous step create the directory:

CATALINA\_HOME\webapps\mum-tools\

And copy all the content of the ***mum-tools*** directory:

* mum-tools\remote-report-exec-multi.jsp
* mum-tools\remote-report-multi.jsp
* mum-tools\WEB-INF\lib\SakaiCoursesWSConsumer.jar
* mum-tools\WEB-INF\lib\axis.jar
* mum-tools\WEB-INF\lib\axis-ant.jar
* mum-tools\WEB-INF\lib\commons-codec-1.9.jar
* mum-tools\WEB-INF\lib\commons-discovery-0.2.jar
* mum-tools\WEB-INF\lib\commons-logging-1.0.4.jar
* mum-tools\WEB-INF\lib\jaxrpc.jar
* mum-tools\WEB-INF\lib\log4j.properties
* mum-tools\WEB-INF\lib\log4j-1.2.8.jar
* mum-tools\WEB-INF\lib\saaj.jar
* mum-tools\WEB-INF\lib\wsdl4j-1.5.1.jar
* mum-tools\WEB-INF\lib\xmlrpc-2.0-beta.jar

Go into the file ***SakaiCoursesWSConsumer.jar*** and edit the file:

***edu\mum\mscs\tools\remotereport\Util.properties***

Set the ***rrQNAME*** value to the URL of the web service specified in the previous step.

Then, set the ***loginQNAME*** value to this URL:

http://*SERVER\_WITH\_SAKAI:PORT*/sakai-axis/SakaiLogin.jws

And also, set **usr/pwd** properties with the correspondent values of an **ANY** account.

Restart Tomcat.

**Step 3**

Prepare a Windows server with the following configuration:

* Office Professional 2010 or higher. Make sure you install Excel.
* Java 1.7.
* PowerShell (compatible with your system).
* MySQL Connector ODBC (compatible with your system).
* 7zip. Please install it in ***c:\tools\*** and create directory: ***c:\tools\sakai\logs\***

**Step 4**

In the Windows server create directory:

c:\sakaitools\

Assign permissions of reading, writing and execution to this folder to ***Everyone*** and copy the next files into:

* ***sakaitools/AutoReports.bat***
* ***sakaitools/AutoReportsMultiple.bat***
* ***sakaitools/Sakai-courseReport.xlsm***
* ***sakaitools/XMLRPCRemoteReport/startRPCserver.bat***
* ***sakaitools/XMLRPCRemoteReport/edu/mum/mscs/tools/remotereport/xmlrpc/JavaServer.class***
* ***sakaitools/XMLRPCRemoteReport/lib/commons-codec-1.9.jar***
* ***sakaitools/XMLRPCRemoteReport/lib/xmlrpc-2.0-beta.jar***

Into this folder, create the folder:

c:\sakaitools\archive

**Step 5**

In Sakai server, edit file ***mum-tools/remote-report-exec-multi.jsp*** line 69 and make it point to your Windows server and the chosen port:

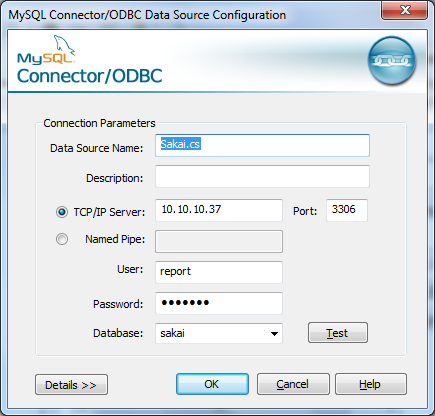
<http://MY_WINDOWS_SERVER:8085/RPC2>

Edit ***sakaitools/XMLRPCRemoteReport/startRPCserver.bat***. Change the port number at the end of line 5 to the port number you chose in ***mum-tools/remote-report-exec-multi.jsp.***

**Step 6**

Setup a MySQL ODBC data source using the previous connector:

* For 64-bit systems run ***C:\Windows\System32 \odbcad32.exe***
* For 32-bit systems run ***C:\Windows\SysWOW64\odbcad32.exe***
* Create new System DSN with driver "MySQL ODBC X.x Unicode Driver"
* Data Source Name: Sakai.cs
* IP: (ask your system administrator)
* User: (ask your system administrator)
* Password: (ask your system administrator)
* Database: sakai (or ask your system administrator)

You should be able to see something like this:

**Step 7**

Change lines 49 and 52 in **AutoReportsMultiple.bat**:

49: " $source='sakai@myschool.edu' ;" ^

……

52: " $server='smtp.myschool.edu' ;" ^

For the corresponding email address and SMTP server. The email address could be any valid email address from your organization from which you want the emails of this application be sent.

***Optionally***, you can test the MySQL Connector/ODBC Data Source.

Test **AutoReportsMultiple.bat.** Example:

C:\sakaitools>AutoReportsMultiple.bat your\_mail@some\_server.com CS435DE/-/MAR/2013 CS465DE/-/MAR/2013

Put as many courses as you want and you know exist in Sakai, but take into account that the first parameter has to be your mail. You should be getting an email with all the reports specified after that command. Note: In the command line, replace any blank spaces in the course name with slashes.

**Step 8**

Go to ***c:\sakaitools\XMLRPCRemoteReport*** directory and execute:

***startRPCserver.bat***

You should see something like this:

Attempting to start XML-RPC Server for Remote Report Application.......

Started successfully.

Accepting requests. (Halt program to stop.)

By default, it is configured to use the port 8085. If there is any other service running on this port, then edit the batch file ***startRPCserver.bat*** and choose another one.

Make sure this service always run. It should be in the “Startup” programs group.

**Step 9**

Finally, check that the ***mum-tools/remote-report-multi.jsp*** page compile and work properly. You should see something like this:

