

# **Guide to Clone or Move Percussion Rhythmyx 6.7 - 7.x Environment**

## **Introduction:**

Cloning or Moving a Rhythmyx Environment is a process to create a target Rhythmyx instance using backfiles from a source instance. Usually the clone of Rhythmyx is created for migrating content along with all Rhythmyx elements from one Rhythmyx environment to another.

## **Prerequisites:**

The following requisites need in place prior to cloning a Rhythmyx instance:

### **1. Setup server machine for target Rhythmyx environment:**

Rhythmyx target server machine need to be set up with Percussion recommended server specifications.

The latest server support information is available in Percussion help site (<http://help.percussion.com/cmsystem/>) in “Installing\_CM\_System\_<version>” doc.

The following link if for Rhythmyx version 7.3

[http://help.percussion.com/Assets/cmsystem/7\\_3/Installation/Installing\\_CM\\_System\\_Version\\_7\\_3.pdf](http://help.percussion.com/Assets/cmsystem/7_3/Installation/Installing_CM_System_Version_7_3.pdf)

### **2. Create database dump file of the source database/schema:**

Following steps to backup database are based on Database client MSSQL Enterprise manager for Microsoft SQL Server and SQL\*Plus for Oracle. Please note that the **source Rhythmyx instance must be down** when taking database backup.

#### ❖ Microsoft SQL server:

- Login to the MSSQL Enterprise manager, expand the Databases node
- Right click on source Rhythmyx database >> Tasks >> Back Up...
- In the “Back Up Database” dialog in the destination section, click on Add and then provide destination folder , a filename with extension “.bak”.
- Click OK
- The above steps will create a database backup file <RhythmyxDev.bak>

#### ❖ Oracle server:

- Log into oracle server: In windows command prompt or Linux/Unix SSH console to export database dump using expdp tool.
- Run the expdp command to create the dump file
- Compress the database backup file if necessary:  
Example command in Linux/Unix to compress RhythmyxDEV.dmp:  
`tar -czvf RhythmyxDEV .dmp.tar.gz RhythmyxDEV.dmp`

Using	Syntax	Sample statement
expdp tool	# expdp <targer_oracle_schema>/<target_schem a_password>@<schema_name> directory= <oracle symbolic directory where dump file is stored> dumpfile=<dump filename with path> logfile=<log file name with path>	# expdp SYSTEM/Password1 schemas= RhythmyxDEV directory= TSORACLE1_EXPORT_DIR dumpfile= RhythmyxDEV.dmp logfile=expdp_dbdump_RhythmyxDEV.log

### 3. Create a compressed file of source Rhythmyx tree:

For the purpose of move/clone the Rhythmyx tree to a new location, if necessary create a compressed file of source Rhythmyx tree folder.

- ❖ Microsoft Windows

- SHUT DOWN RHYTHMYX SERVER.
- Right click on the source Rhythmyx tree folder and add that to a new zip file. Example: “<Source\_Rhythmyx.zip>”

- ❖ Solaris / Linux/Unix / Unix

- SHUT DOWN RHYTHMYX SERVER.
- Copy source Rhythmyx directory into a new folder “<Source\_Rhythmyx >”.
- Package the copied folder as “<Source\_Rhythmyx \_Tree>”.tar.gz using following command.

```
# tar -czvf < Source_Rhythmyx_Tree >.tar.gz < Source_Rhythmyx>
```

### 4. Install Rhythmyx Service for Windows:

When cloning a Windows Rhythmyx environment to another host or another location on the same host, the service doesn't go with it. Use following steps to install a Rhythmyx service:

- ❖ Perform a fresh installation of Rhythmyx in the same location as the target environment on the new host machine. Point to a dummy Rhythmyx repository database for installation. Please refer “Installing\_CM\_System\_<version>” doc for instructions on how to install a brand new Rhythmyx instance.

The installer can be downloaded from: <http://help.percussion.com/cmsystem/downloads>

- ❖ After successful completion of brand new Rhythmyx instance, delete all folders and files under the new Rhythmyx installation root directory, leaving the directory empty.
- ❖ Unpack the compressed source Rhythmyx instance folder < Source\_Rhythmyx >.zip into the new empty Rhythmyx installation root directory
- ★ Note: Please contact Percussion support for a new brand code.

## **5. Installation code for rebranding the Rhythmyx instance:**

If the target instance is brand new or its installation code is older than a month please contact Percussion support for new installation code. The new installation code is required for rebranding one instance from another (Eg: DEV to PROD) after cloning.

- ★ Note: Please contact Percussion support for a new brand code.

## **6. Assign network ports for Rhythmyx :**

Make sure set of 10 consecutive ports available and allocated for target environment in target host server machine. Please make sure that the RX\_SERVER\_PORT port is properly mapped if the target server is behind a firewall or proxy.

## **7. Install 32bit libraries in 64bit Linux/Unix:**

Please make sure 32bit libraries are installed in 64 bit machine before moving Rhythmyx to a 64bit from a 32bit machine.

```
sudo yum install libXtst-*  
sudo yum install glibc.i686
```

- ★ Note:
  - ❖ The brand code provided by Percussion is only valid for a month to run rebrander tool or for fresh installation. To receive a new code, contact Percussion at support.percussion.com with following information:
    - Purpose for new code request
    - Rhythmyx version of source Rhythmx instance
    - Type of target environment (DEV, TEST, PROD)
  - ❖ All Linux/Unix instructions are applicable to Solaris operating systems as well.
  - ❖ The sample configurations and commands(Linux/Unix and database statements) provided are for guidance only. You may have to tweak the commands or configurations based on your requirements or version of tools used at your end.

## **Clone Rhythmyx instance:**

The cloning of Rhythmyx instance requires cloning of both source Rhythmyx database and its corresponding Rhythmyx tree.

- ❖ Step 1: Clone – Rhythmyx Database:

- Restore the target environment's database using the database dump from source instance.
- Update database related files in Rhythmyx Tree
- ★ Note: This above two step can be skipped when only moving Rhythmyx tree to a new location and connected to same database.
- ❖ Step 2: Clone – Rhythmyx Tree:
  - Make a copy of the Source Rhythmyx Tree (folder) from source location to the target location.
  - Update relevant configurations in Rhythmyx Tree.

### **Step 1: Clone – Rhythmyx Database:**

Restore database: Restore the target environment's database using the database dump from source environment's database.

Steps involved in cloning Rhythmyx Database:

- 1.1. Restore Database
- 1.2. Update database views
- 1.3. Cleanup database tables

### **1.1 Restore Database:**

#### **★ Restoring database in Microsoft SQL Server:**

- ❖ Move the database dump file to the Database Server
  - Log into the database server and move the packaged < RhythmyxDEV.bak >. file to the appropriate directory.
  - Extract the zip file in the same location.
- ❖ Open SQL Server Management Studio under Windows Start >> All Programs >> Microsoft SQL Server 2014
- ❖ Log into Microsoft SQL Server instance using the database administrator username and password
- ❖ Right-click on the Databases node in the left pane > choose New Database
- ❖ In the New Database window provide the database name (Eg: RhythmyxDEV)
- ❖ Right click on the newly created database, select Tasks > Restore > Database...
- ❖ In the “To Database” field, enter the database name created in step d
- ❖ Under “Source for restore”, select the “From device” radio button
- ❖ Click the ... button > click Add > locate and select the \*.bak file extracted from the zip in step a
- ❖ Click OK
- ❖ Check Restore under “Select the backup sets to restore”
- ❖ Click “Options” in the left pane
- ❖ Under “Restore Options”, check “Overwrite the existing database”
- ❖ Under “Restore the database files as:”(Files tab), make sure the path for the .mdf and .ldf files are correct.

- ❖ Click OK. The <RhythmyxDEV> database will be restored from the .bak file

### ★ Restoring database in Oracle server:

- ❖ Move the Database Dump to the Database Server
  - Log into the database server and move the packaged < RhythmyxDEV>.dmp file to the appropriate directory
  - Extract the zip/tar to the same location.
- ❖ Log into Oracle SQL\*Plus using oracle appropriate credentials
- ❖ If necessary, create TABLESPACE and USER with appropriate permissions using following SQL statements:
  - CREATE BIGFILE TABLESPACE "RhythmyxDEV" DATAFILE '/DATA/RhythmyxDEV.dbf' SIZE 1M;
  - ALTER TABLESPACE "RhythmyxDEV" AUTOEXTEND ON NEXT 1M;
  - CREATE USER "RhythmyxDEV" PROFILE "DEFAULT" IDENTIFIED BY "<password>" DEFAULT TABLESPACE "RhythmyxDEV" TEMPORARY TABLESPACE "TEMP" ACCOUNT UNLOCK;
  - GRANT UNLIMITED TABLESPACE TO "RhythmyxDEV" WITH ADMIN OPTION;
  - GRANT "CONNECT" TO "RhythmyxDEV" WITH ADMIN OPTION;
  - GRANT "DBA" TO "RhythmyxDEV" WITH ADMIN OPTION;
  - GRANT "RESOURCE" TO "RhythmyxDEV" WITH ADMIN OPTION;
  - COMMIT;
- ❖ Import database from source dump file < RhythmyxDEV>.dmp using impdp tool :
  - In the Oracle server windows command prompt or Linux/Unix SSH console run following command for database import:

```
impdp <oracle username>/<password> directory=IMPORT_DIR dumpfile=<Databasebackup>.dmp schemas=RX_OWNER remap_schema=RX_OWNER:RhythmyxDEV version=11.1 remap_tablespace=RX_DATA: RhythmyxDEV logfile=RhythmyxDEV_IMPDP.log
```

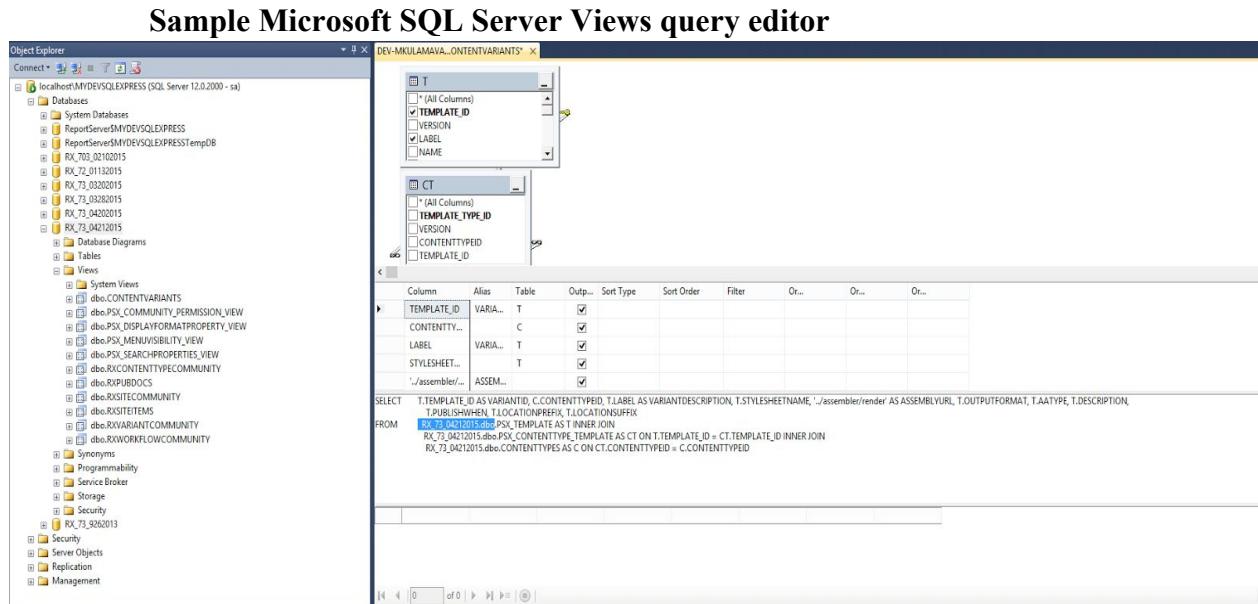
- ❖ Review the database import log. There should be one Oracle error (IMP-00041) for each view that was in source environment. All other errors should be researched and corrected.

## 1.2 Update Views script:

Rhythmyx installation associates its database views to its respective database. After restoring the database, update the target database views script to refer to its own, if the database name of the target database is different from that of the source. This step is required especially when more than one Rhythmyx database exists in the same database server.

## ★ Updating database Views in Microsoft SQL Server:

- ❖ In the SQL Server Management Studio, expand Databases,
- ❖ Expand the Database you just created (Eg. RhythmyxDEV),
- ❖ Expand the Views folder
- ❖ Right click the first view > select Design,
- ❖ Select all of the SQL from the new window and paste the contents into an editor
- ❖ In an editor, highlight one instance of the schema name and its trailing dot “.”, then go to Edit > Replace Edit the “Replace with” field with “<schema name>.”( RhythmyxDEV.) and click Replace All
- ❖ Press CTRL + A to select all of the newly modified SQL in an editor
- ❖ Press CTRL + C to copy all of the selected SQL
- ❖ Go back to the MS SQL design window for the view
- ❖ Press CTRL + A to select all of the old SQL
- ❖ Press CTRL + V to overwrite all of the old SQL with the new SQL
- ❖ Click the Save button to save the changes and recompile the view
- ❖ Repeat steps d-l for the rest of the views (don't update System Views)

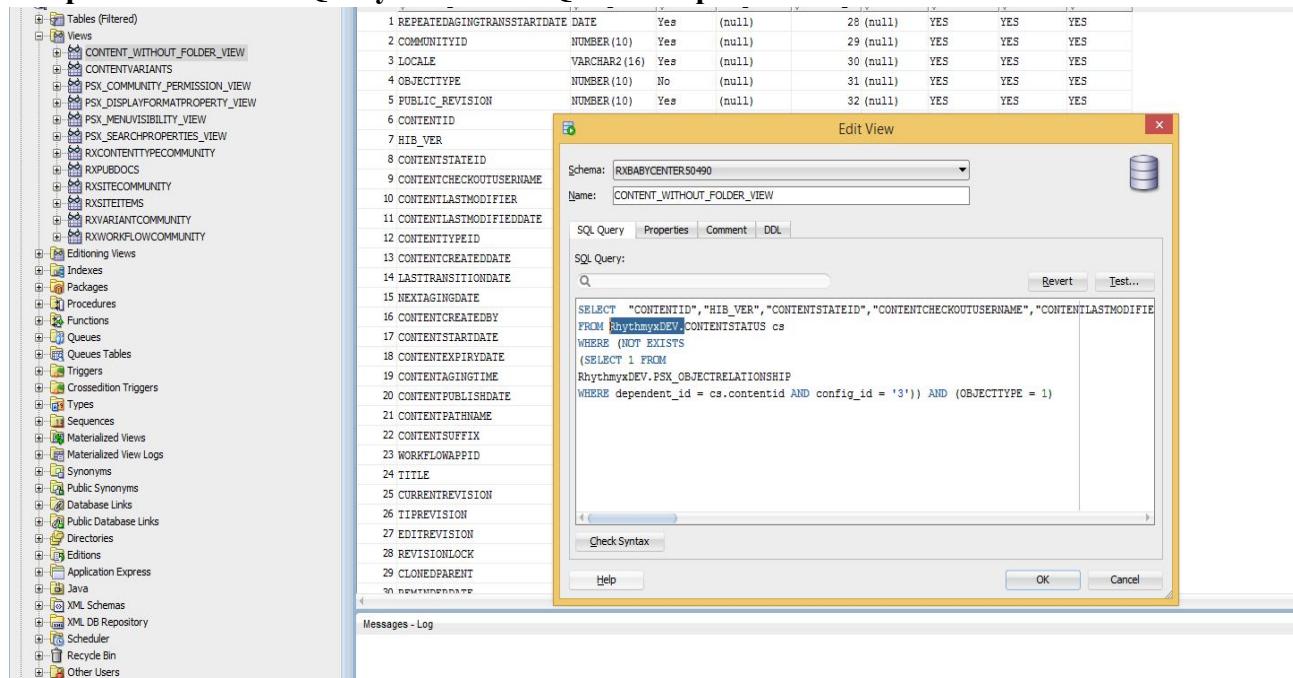


## ★ Updating database Views in Oracle Server:

- ❖ SQLDeveloper database client, expand Schema (RhythmyxDEV) >> Views
- ❖ Highlight the first view to see the SQL statement for the view >> Edit
- ❖ Copy the contents of views Query Text window
- ❖ Paste the SQL from the Query Text window into a an editor document,
- ❖ In an editor, highlight one instance of the schema name and it's trailing dot “.”, then go to tool bar and choose Edit > Replace

- ❖ Edit the “Replace with” field with “<schema name>.”( RhythmyxDEV.) and click Replace All
- ❖ Press CTRL + A to select all of the newly modified SQL in an editor,
- ❖ Press CTRL + C to copy all of the selected SQL,
- ❖ Go back to the Query Text window in Oracle,
- ❖ Press CTRL + A to select all of the old SQL,
- ❖ Press CTRL + V to overwrite all of the old SQL with the new SQL,
- ❖ Click the Apply button. If everything went correctly, there should be no error.
- ❖ Repeat steps b-l to update the rest of the views as necessary (don’t update System Views)

### Sample Oracle Views Query Editor in SQL Developer client:



### 1.3 Recommended database cleanups:

We recommend to clean source instance publishing and session related information stored in the respective tables. Run following SQL statements against target Rhythmyx instance’s database .

- ❖ delete from PSX\_SEARCHINDEXQUEUE;
- ❖ delete from PSX\_PERSISTEDPROPERTYVALUES;
- ❖ delete publishing related tables from Rhythmyx version 6.7 – 7.x
  - delete from PSX\_PUBLICATION\_SITE\_ITEM;
  - delete from PSX\_PUBLICATION\_DOC;
  - delete from PSX\_PUBLICATION\_STATUS;
  - commit;
- ❖ In database upgraded from older Rhythmyx versions starting 6.5.2 or below:

- delete TABLE pslog;
- delete TABLE pslogdat;
- delete TABLE RXPUBDOCS;
- delete TABLE RXPUBSTATUS;
- delete TABLE RXSITEITEMS;
- commit;

## **Step 2: Clone – Rhythmyx tree:**

Cloning Rhythmyx tree involves following steps:

- 2.1 Restore Rhythmyx tree
- 2.2 Update configuration files
- 2.3 Cleanup Rhythmyx tree temporary files

### **2.1 Restore Rhythmyx tree:**

- ❖ Extract the compressed source Rhythmyx tree into the target location.

Sample location in

Windows: C:\Rhythmyx

Linux/Unix: /home/Rhythmyx

- ★ Note: When creating a new Rhythmyx windows service created using installer, all folders and files from the Rhythmyx Tree folder from the fresh installation must be replaced with the files from the compressed source tree.

### **2.2 Update relevant configurations files in target Rhythmyx tree:**

Steps involved :

- ❖ Update Datasource configurations
- ❖ Update the Rhythmyx servlet configuration
- ❖ Update Rhythmyx path
- ❖ Update Port configurations

#### **❖ Update Datasource configurations:**

If either the database or its origin of the source database configuration is different in the target environment then this step is necessary.

#### **1. Update the datasource information in**

**<RhythmyxRoot>\AppServer\server\rx\deploy\rx-ds.xml file:**

- 1.1. In a text editor, open <RhythmyxRoot>\AppServer\server\rx\deploy\rx-ds.xml.
- 1.2. Find the <connection-url> node and replace the SOURCE credentials with the TARGET credentials.

The <connection-url> tag syntax:

**Oracle:**

```
<connection-url>jdbc:oracle:thin:@OracleServerName:OraclePort#:OracleSID</connection-url>
```

**MSSQL:**

```
<connection-url>jdbc:jtds:sqlserver://MSSQLServerName</connection-url>
```

Please refer to example configurations given below for commonly used RDBMSs.

- 1.3. If the target database credentials are different from the source, replace the `<security-domain>...</security-domain>` node with `<user-name>` and `<password>` nodes containing the appropriate data. See the example code below for illustrations of updates to commonly used RDBMSs.

- ★ Note: You may also choose to update the username and password in `<RhythmyxRoot>\AppServer\server\rx\conf\login-config.xml` file instead of removing `<security-domain>` node in rx-ds.xml file. In login-config.xml file find “rx.datasource.jdbc\_RhythmyxData” and update username and password property under that section.

- ★ Example **node to update username and password in login-config.xml file:**

```
<application-policy name="rx.datasource.jdbc_RhythmyxData">
  <authentication>
    <login-module
      code="com.percussion.services.security.loginmods.PSSecureIdentityLoginModule"
      flag="required">
      <module-option name="username">NewUserName</module-option>
      <module-option name="password">NewPassword</module-option>
      <module-option
        name="managedConnectionFactoryName">jboss.jca:service=LocalTxCM,name=jdbc/R
        ythmyxData</module-option>
    </login-module>
  </authentication>
</application-policy>
```

- 1.4. To **encrypt the text password:** Once you have completed all updates and have started the Rhythmyx server, log in to the Rhythmyx Server Administrator >> Datasources tab >> Click the [Apply] button. Rhythmyx will encrypt the text password entered in login-config.xml file or rx-ds.xml file.

	<b>Sample Source Configuration in rx-ds.xml file</b>	<b>Sample Target Configuration in rx-ds.xml file</b>
<b>MS SQL Server</b>	<pre> &lt;datasources&gt;   &lt;local-tx-datasource&gt;     &lt;jndi-name&gt;jdbc/RhythmyxData&lt;/jndi-name&gt;     &lt;connection-url&gt;jdbc:jtds:sqlserver://source&lt;/connection-url&gt;     &lt;driver-class&gt;net.sourceforge.jtds.jdbc.Driver&lt;/driver-class&gt;     &lt;security-domain&gt;rx.datasource.jdbc_RhythmyxData&lt;/security-domain&gt;     &lt;min-pool-size&gt;5&lt;/min-pool-size&gt;     &lt;max-pool-size&gt;100&lt;/max-pool-size&gt;     &lt;idle-timeout-minutes&gt;15&lt;/idle-timeout-minutes&gt;     &lt;metadata&gt;       &lt;type-mapping&gt;MS SQLSERVER2000&lt;/type-mapping&gt;     &lt;/metadata&gt;   &lt;/local-tx-datasource&gt; &lt;/datasources&gt;</pre>	<pre> &lt;datasources&gt;   &lt;local-tx-datasource&gt;     &lt;jndi-name&gt;jdbc/RhythmyxData&lt;/jndi-name&gt;     &lt;connection-url&gt;jdbc:jtds:sqlserver://target&lt;/connection-url&gt;     &lt;driver-class&gt;net.sourceforge.jtds.jdbc.Driver&lt;/driver-class&gt;     &lt;user-name&gt;sa&lt;/user-name&gt;     &lt;password&gt;sample&lt;/password&gt;     &lt;min-pool-size&gt;5&lt;/min-pool-size&gt;     &lt;max-pool-size&gt;100&lt;/max-pool-size&gt;     &lt;idle-timeout-minutes&gt;15&lt;/idle-timeout-minutes&gt;     &lt;metadata&gt;       &lt;type-mapping&gt;MS SQLSERVER2000&lt;/type-mapping&gt;     &lt;/metadata&gt;   &lt;/local-tx-datasource&gt; &lt;/datasources&gt;</pre>
<b>Oracle</b>	<pre> &lt;datasources&gt;   &lt;local-tx-datasource&gt;     &lt;jndi-name&gt;jdbc/RhythmyxData&lt;/jndi-name&gt;     &lt;connection-url&gt;jdbc:oracle:thin:@source:1521:target&lt;/connection-url&gt;     &lt;driver-class&gt;oracle.jdbc.driver.OracleDriver&lt;/driver-class&gt;     &lt;security-domain&gt;rx.datasource.jdbc_RhythmyxData&lt;/security-domain&gt;     &lt;min-pool-size&gt;5&lt;/min-pool-size&gt;     &lt;max-pool-size&gt;100&lt;/max-pool-size&gt;     &lt;idle-timeout-minutes&gt;15&lt;/idle-timeout-minutes&gt;     &lt;valid-connection-checker-class-name&gt;org.jboss.resource.adapter.jdbc.vendor.OracleValidConnectionChecker&lt;/valid-connection-checker-class-name&gt;     &lt;exception-sorter-class-name&gt;org.jboss.resource.adapter.jdbc.vendor.OracleExceptionSorter&lt;/exception-sorter-class-name&gt;</pre>	<pre> &lt;datasources&gt;   &lt;local-tx-datasource&gt;     &lt;jndi-name&gt;jdbc/RhythmyxData&lt;/jndi-name&gt;     &lt;connection-url&gt;jdbc:oracle:thin:@target:1521:target&lt;/connection-url&gt;     &lt;driver-class&gt;oracle.jdbc.driver.OracleDriver&lt;/driver-class&gt;     &lt;user-name&gt;rxuser&lt;/user-name&gt;     &lt;password&gt;sample&lt;/password&gt;     &lt;min-pool-size&gt;5&lt;/min-pool-size&gt;     &lt;max-pool-size&gt;100&lt;/max-pool-size&gt;     &lt;idle-timeout-minutes&gt;15&lt;/idle-timeout-minutes&gt;     &lt;valid-connection-checker-class-name&gt;org.jboss.resource.adapter.jdbc.vendor.OracleValidConnectionChecker&lt;/valid-connection-checker-class-name&gt;</pre>

	<pre> ptionSorter&lt;/exception-sorter-class-name&gt; &lt;metadata&gt; &lt;type-mapping&gt;Oracle8&lt;/type-mapping&gt; &lt;/metadata&gt; &lt;/local-tx-datasource&gt; &lt;/datasources&gt; </pre>	<pre> &lt;exception-sorter-class-name&gt;org.jboss.resource.adapter.jdbc.vendor.OracleExceptionSorter&lt;/exception-sorter-class-name&gt; &lt;metadata&gt; &lt;type-mapping&gt;Oracle8&lt;/type-mapping&gt; &lt;/metadata&gt; &lt;/local-tx-datasource&gt; &lt;/datasources&gt; </pre>
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## ★ Update the database/schema value in Spring Configuration

If either the database property or origin(Oracle) property of the database configuration is different for the target environment, update the Spring configuration.

To update the Spring configuration in server-beans.xml file:

- ❖ In a simple text editor, open <RhythmyxRoot>\AppServer\server\rx\deploy\rxapp.ear\rxapp.war\WEB-INF\config\spring\server-beans.xml
- ❖ Find the node <bean class="com.percussion.services.datasource.PSDatasourceConfig" id="RhythmyxData">
- ❖ Change either the database property or the origin property appropriately

	Sample Datasource Spring configuration in server-beans.xml file	Sample Datasource Spring configuration in server-beans.xml file
MS SQL Server	<pre> &lt;bean class="com.percussion.services.datasource.PSDatasourceConfig" id="RhythmyxData"&gt; &lt;property name="name" value="RhythmyxData"/&gt; &lt;property name="dataSource" value="jdbc/RhythmyxData"/&gt; &lt;property name="database" value="&lt;source database name&gt;"/&gt; &lt;property name="origin" value="dbo"/&gt; &lt;/bean&gt; </pre>	<pre> &lt;bean class="com.percussion.services.datasource.PSDatasourceConfig" id="RhythmyxData"&gt; &lt;property name="name" value="RhythmyxData"/&gt; &lt;property name="dataSource" value="jdbc/RhythmyxData"/&gt; &lt;property name="database" value="&lt;target database name&gt;"/&gt; &lt;property name="origin" value="dbo"/&gt; &lt;/bean&gt; </pre>
Oracle	<pre> &lt;bean class="com.percussion.services.datasource.PSDatasourceConfig" id="RhythmyxData"&gt; </pre>	<pre> &lt;bean class="com.percussion.services.datasource.PSDatasourceConfig" id="RhythmyxData"&gt; </pre>

	<pre> &lt;property name="name" value="RhythmyxData"/&gt; &lt;property name="dataSource" value="jdbc/RhythmyxData"/&gt; &lt;property name="database" value="" /&gt; &lt;property name="origin" value="development"/&gt; &lt;/bean&gt; </pre>	<pre> atasource.PSDatasourceConfig" id="RhythmyxData"&gt; &lt;property name="name" value="RhythmyxData"/&gt; &lt;property name="dataSource" value="jdbc/RhythmyxData"/&gt; &lt;property name="database" value="" /&gt; &lt;property name="origin" value="production"/&gt; &lt;/bean&gt; </pre>
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**Rhythmyx can be configured for multiple oracle connection nodes for load balancing.**

<b>Oracle cluster – Load balancing configuration</b>	<p><b>Update the &lt;connection-url&gt; node configuration of rx-ds.xml file as given in following syntax:</b></p> <pre> &lt;connection-url&gt;jdbc:oracle:thin:@ (DESCRIPTION = (LOAD_BALANCE = yes) (ADDRESS = (PROTOCOL = TCP) (HOST = host1-vip)(PORT = 1521)) (ADDRESS = (PROTOCOL = TCP) (HOST = host2-vip)(PORT = 1521)) (CONNECT_DATA = (SERVER = DEDICATED) (SERVICE_NAME = db-service) (FAILOVER_MODE = (TYPE = SELECT) (METHOD = BASIC)(RETRIES = 180)(DELAY = 5)) ) )&lt;/connection-url&gt; </pre> <p>Where:</p> <p>host1-vip = virtual IP of node1  host2-vip = virtual IP of node2  db_service = the Service name of the database</p> <p>So for instance given following:</p> <p>host1-vip = MISCDATA1V.DB.PERCU.COM  host2-vip = MISCDATA2V.DB.PERCU.COM  db_service = PMISC.db.percu.com</p>	<p>A sample configuration:</p> <pre> &lt;connection-url&gt;jdbc:oracle:thin:@ (DESCRIPTION = (LOAD_BALANCE = yes) (ADDRESS = (PROTOCOL = TCP) (HOST = MISCDATA1V.DB.PERCU.COM) (PORT = 1521)) (ADDRESS = (PROTOCOL = TCP) (HOST = MISCDATA2V.DB.PERCU.COM) (PORT = 1521)) (CONNECT_DATA = (SERVER = DEDICATED) (SERVICE_NAME = PMISC.db.percu.com) (FAILOVER_MODE = (TYPE = SELECT) (METHOD = BASIC)(RETRIES = 180)(DELAY = 5)) ) )&lt;/connection-url&gt; </pre>
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❖ Update the Rhythmyx servlet configuration:

- The web.xml file holds the reference to the Rhythmyx root path which need be updated if target folder structure is different from that of source.
- In a text editor, open  
`<RhythmyxRoot>\AppServer\server\rx\deploy\rxapp.ear\rxapp.war\WEB-INF\`  
`web.xml` file
- Find the `<init-param>` node where the value of the `<param-name>` child is **rxDir**.
- Change the value of the `<param-value>` child node to match the directory path of the target Rhythmyx root location.

	Sample Source Servlet Configuration in web.xml file	Sample Target Servlet Configuration in web.xml file
<b>MS SQL Server</b>	<pre>&lt;init-param&gt; &lt;param-name&gt;rxDir&lt;/param-name&gt; &lt;param-value&gt;C:\Rhythmyx&lt;/param-value&gt; &lt;/init-param&gt;</pre>	<pre>&lt;init-param&gt; &lt;param-name&gt;rxDir&lt;/param-name&gt; &gt; &lt;param-value&gt;D:\CMS\Rhythmyx&lt;/param-value&gt; &lt;/init-param&gt;</pre>
<b>Oracle</b>	<pre>&lt;init-param&gt; &lt;param-name&gt;rxDir&lt;/param-name&gt; &lt;param-value&gt;/usr/local/rx/Rhythmyx&lt;/param-value&gt; &lt;/init-param&gt;</pre>	<pre>&lt;init-param&gt; &lt;param-name&gt;rxDir&lt;/param-name&gt; &gt; &lt;param-value&gt;/home/Production/CMSS/Rhythmyx&lt;/param-value&gt; &lt;/init-param&gt;</pre>

❖ Update Rhythmyx path to match the target instance location:

**Change Rhythmyx Path in all \*.lax files(if necessary)**

Rhythmyx stores the Rhythmyx tools related configurations in files with .lax extension which is located under `<RhythmyxRoot>` folder. The LAX.DIR and LAX.ROOT.INSTALL.DIR path value in all \*.lax files need to be updated to the appropriate target instance Rhythmyx root path if the target folder path is different from the source Rhythmyx tree path. The file names are slightly different on Linux/Unix vs Windows operating system.

**Linux/Unix \*.lax files update:**

Update following lax file in Linux/Unix:

❖ RhythmyxServer.bin.lax

- ❖ RhythmyxServerPropertiesEditor.bin.lax
- ❖ Synchronizer.bin.lax

### ★ Example update in Linux/Unix

If Rhythmyx was originally installed on a Linux/Unix machine into /usr/local/share/Percussion and now moved it to a target machine (or even the same machine) into /home/Percussion/Rhythmyx then update the **LAX.DIR** from /usr/local/share/Percussion/ to /home/Percussion/Rhythmyx and the **LAX.ROOT.INSTALL.DIR** from /usr/local/share/Percussion to /home/Percussion/Rhythmyx

### **Windows \*.lax files update:**

Update following lax file in Windows:

- ❖ PercussionPackageBuilder.lax
- ❖ PercussionPackageInstaller.lax
- ❖ RhythmyxMultiServerManager.lax
- ❖ RhythmyxServer.lax
- ❖ RhythmyxServerAdministrator.lax
- ❖ RhythmyxServerPropertiesEditor.lax
- ❖ RhythmyxWorkbench.lax
- ❖ RhythmyxXSpLit.lax
- ❖ Synchronizer.lax

### ★ Example update in Windows:

If Rhythmyx was originally installed on a Windows machine into C:\Program Files\Percussion and now moved it to a new machine (or even the same machine) into D:\Percussion then update the **LAX.DIR** from C:\\Program Files\\Percussion\\ to D:\\Percussion\\ and the **LAX.ROOT.INSTALL.DIR** from C:\\Program Files\\Percussion to D:\\Percussion.

★ Note: The **LAX.DIR** ends in a trailing slash and the lax.root.install.dir does not have a trailing slash. Failure to retain that syntax will result in JBoss altering those paths during initialization in an attempt to find a local JRE. You must make sure that the **LAX.DIR** ends in a trailing slash and the **LAX.ROOT.INSTALL.DIR** does not have a trailing slash.

- ❖ Update Port configurations files(if necessary):

Rhythmyx uses 10 ports (7 for Rhythmyx JBoss, 3 for Tomcat). If the target instance need to run in a different set of ports than the source instance, then you need to update the target instance ports.

### Change Rhythmyx Ports (if necessary)

Rhythmyx is configured with following ports by default:

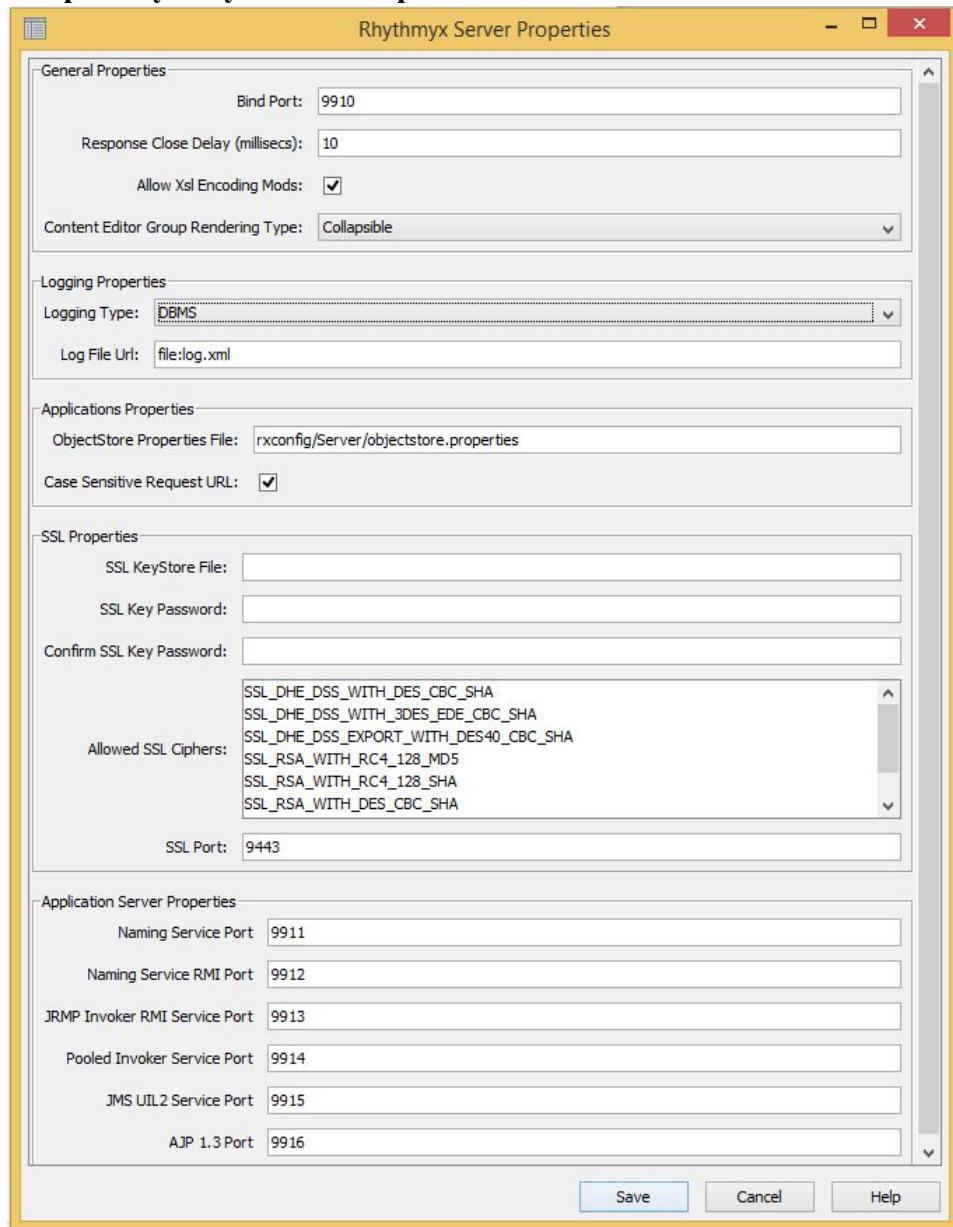
Label	Name	Port #
Rhythmyx Port (external)	RX_SERVER_PORT	9992
Naming Service Port (internal)	NAMING_SERVICE_PORT	9993
Naming Service RMI Port (internal)	NAMING_SERVICE_RMI_PORT	9994
JRMP Invoker Service RMI Port (internal)	JRMP_INVOKER_SERVICE_RMI_PORT	9995
Pooled Invoker Service Port (internal)	POOLED_INVOKER_SERVICE_PORT	9996
JMS UIL2 Service Port (internal)	JMS UIL2 SERVICE_PORT	9997
AJP 1.3 Service Port (internal)	AJP_1_3_SERVICE_PORT	9998

In windows Rhythmyx ports can be updated using RhythmyxServerPropertiesEditor.exe tool which is located under <RhythmyxRoot> folder.

#### ❖ To update ports using RhythmyxServerPropertiesEditor.exe tool:

- Double click <Rhythmyx Root>\RhythmyxServerPropertiesEditor.exe,
- Make the following changes (provided by target Server Administrator):
  - Bind Port: aka RXPORT. This is the port you will use to connect to Rhythmyx, Typically the rest of the ports are calculated based on RXPORT.
  - Naming Service Port: RXPORT + 3
  - Naming Service RMI Port: RXPORT + 4
  - JRMP Invoker RMI Service Port: RXPORT + 5
  - Pooled Invoker Service Port: RXPORT + 6
  - JMS UIL2 Service Port: RXPORT + 7
  - AJP 1.3 Port: RXPORT + 8
- Click Save
- Click “No” on the popup warning. Click Save

## Sample RhythmyxServerPropertiesEditor:



Rhythmyx ports can also be manually updated without using RhythmyxServerPropertiesEditor tool by updating following files:

- ❖ <RhythmyxRoot>\AppServer\bin\shutdown.bat (**WINDOWS ONLY**)
  - Change jboss\_shutdown.bat -s localhost:9993 to target NAMING\_SERVICE\_PORT
- ❖ <RhythmyxRoot>\AppServer\bin\shutdown\_service.bat (**WINDOWS ONLY**)
  - Change START /B .\AppServer\bin\jboss\_shutdown.bat -s localhost:9993 to target NAMING\_SERVICE\_PORT

- ❖ <RhythmyxRoot>/rx\_user.id (**Linux/Unix ONLY**)
  - On Linux/Unix update rx\_user.id file located in the root directory. The variable SYSTEM\_USER\_ID need to be set to the username that will run the Rhythmyx instance.
- ❖ <RhythmyxRoot>/StopServer.sh (**Linux/Unix ONLY**)
  - Change ./AppServer/bin/jboss\_shutdown.sh -s localhost:9993 to NAMING\_SERVICE\_PORT.
- ❖ <RhythmyxRoot>/AppServer/bin/shutdown.sh (**Linux/Unix ONLY**)
  - Change jboss\_shutdown.bat -s localhost:9993 to NAMING\_SERVICE\_PORT.
- ❖ <RhythmyxRoot>/AppServer/server/rx/conf/jboss-service.xml
  - Change <attribute name="Port">9993</attribute> to NAMING\_SERVICE\_PORT,
  - Change <attribute name="RmiPort">9994</attribute> to NAMING\_SERVICE\_RMI\_PORT,
  - Change <attribute name="RMIOBJECTPORT">9995</attribute> to JRMP\_INVOKER\_SERVICE\_RMI\_PORT,
  - Change <attribute name="ServerBindPort">9996</attribute> to POOLED\_INVOKER\_SERVICE\_PORT.
- ❖ <RhythmyxRoot>/AppServer/server/rx/deploy/jboss-web.deployer/server.xml
  - In the first <Connector> tag change port="9992" to RX\_SERVER\_PORT,
  - If you use SSL, update redirectPort="8443" to set it to target SSL port
  - In the 2nd <Connector> tag change port="9998" to AJP\_1\_3\_SERVICE\_PORT,
  - Again, if you use SSL, update redirectPort="8443" to set it to the target SSL port
- ❖ <RhythmyxRoot>/AppServer/server/rx/deploy/jms/UIL2-service.xml
  - Change <attribute name="ServerBindPort">9997</attribute> to JMS\_UIL2\_SERVICE\_PORT

## 2.3 Recommended Temporary files cleanup:

We recommended to remove following files from Rhythmyx tree.

- ❖ <RhythmyxRoot>/server\_run\_lock
  - If this file exists in the root dir, delete it before attempting to initialize the Rhythmyx server.
- ❖ <RhythmyxRoot>/dbg\_.sys\_CEHandler\*.xml
  - Delete all files in the root with name starts with dbg\_sys\_CEHandler delete them before attempting to initialize the Rhythmyx server.
- ❖ <RhythmyxRoot>/.sys\_CEHandler\*
  - If there are folders in the root with a name that starts with .sys\_CEHandler, then delete them.
- ★ Note: In Windows folders that starts with a period are hidden, therefore you may have to enable show hidden files/folders to see them.
- ❖ Delete **all files and folders from :**

- <RhythmyxRoot>/AppServer/server/rx/tmp/
- <RhythmyxRoot>/AppServer/server/rx/work/
- <RhythmyxRoot>/AppServer/server/rx/data/
- ❖ Cleanup log files
  - Remove all <Rhythmyx Root>\console.log.\* files
  - Remove all log files under <Rhythmyx Root>/AppServer/server/rx/log directory..

## Rebrand the server with a new installation code

After cloning we have to update the brand code in the clone instance otherwise the target still instance will still be branded as the source instance type(DEV,PROD or TEST) and installation code will be same as source instance which would be a violation of Percussion licensing contract.

To update a new installation (brand) code you have to use the branding tool.

Under the Rhythmyx\_root\bin directory, please run the following:

- ❖ Windows : "rxbrander.exe"
- ❖ Linux/Unix (version 6.7 or above): ./RxBrander.bin
- ❖ Linux/Unix (versions lower than 6.7): ./RxBrander.bin -i console

## Start/Stop the Server

### In Linux/Unix:

- ❖ To Start the RhythmyxDaemon under Linux/Unix/Unix/Solaris:
  - SSH into the host that the target Rhythmyx tree
  - Change directory to <Rhythmyx Root>/bin directory
  - Run '# ./RhythmyxDaemon start ..' command to start the daemon
  - Can run '# tail -f ../console.log' to watch the console.log or #tail -f <RhythmyxRoot>/AppServer/server/rx/log/server.log to watch the server.log as the server starts up
  - Make sure there are no unknown errors during startup.
- ❖ To stop the server:
  - Under <RhythmyxRoot>/bin directory, run '# ./RhythmyxDaemon stop..' to stop the server

### In Windows:

- ❖ To start the server:
  - Start the Windows service of the target environment or run <RhythmyxRoot>/RhythmxServer.exe file in the Rhythmyx root folder.
- ❖ To stop the server:
  - When started using windows server: Stop the windows service
  - When started using <RhythmyxRoot>/ RhythmxServer.exe: press ctrl+c .

## **Update Publishing Design configurations:**

Please remember to update the Publishing Design configurations for sites to change the published path of the target environment. If you need to change the publishing configurations before starting the server, can update appropriate column value of RXSITES table of target database.