This document describe about the MDS configuration in Windows and Linux respectively.

# Configuration in Windows

#### Prerequisite

For MDS integration need to install TIBRV or require all *jar*s(tibrvj.jar) and *dll*s(libeay32.dll, ssleay32.dll, TIBCO.Rendezvous.dll, tibrv.dll, tibrvcm.dll, tibrvcmq.dll, tibrvcom.dll, tibrvft.dll, tibrvj.dll, tibrvjsd.dll, tibrvnative.dll, tibrvnativesd.dll, tibrvsd.dll, tibrvsdcom.dll) from TIBCO installation. Copy these files into a folder (Example C:\TIBCO\TIBRV\bin for dll, C:\TIBCO\TIBRV\lib for jar).

MDS supporting jars (RVFrameWork-1.5.jar, MDSCore4.2.1.jar, MDSCommon4.2.2.jar, jaxen-1.1-beta-5.jar, HubInterface-4.2.7.jar, Config-1.0.jar, HubInterfaceRv-4.2.1.jar)

#### Step 1

Push following jars into Maven repository by executing commands given below.

tibrvj.jar, RVFrameWork-1.5.jar, MDSCore4.2.1.jar, MDSCommon4.2.2.jar, jaxen-1.1-beta-5.jar, HubInterface-4.2.7.jar, Config-1.0.jar, HubInterfaceRv-4.2.1.jar

*mvn install:install-file -Dfile=<JAR\_FOLDER>\tibrvj.jar -DgroupId=com.tibco.tibrv -DartifactId=tibrvj -Dversion=1.0 -Dpackaging=jar*

*mvn install:install-file -Dfile=<JAR\_FOLDER>\RVFrameWork-1.5.jar -DgroupId=com.git.framework.rv -DartifactId=RVFrameWork -Dversion=1.5 -Dpackaging=jar*

*mvn install:install-file -Dfile=<JAR\_FOLDER>\MDSCore4.2.1.jar -DgroupId=com.git.mds.core -DartifactId=MDSCore4 -Dversion=4.2.1 -Dpackaging=jar*

*mvn install:install-file -Dfile=<JAR\_FOLDER>\MDSCommon4.2.2.jar -DgroupId=com.git.mds.common -DartifactId=MDSCommon -Dversion=4.2.2 -Dpackaging=jar*

*mvn install:install-file -Dfile=<JAR\_FOLDER>\jaxen-1.1-beta-5.jar -DgroupId=org.jaxen -DartifactId=jaxen -Dversion=1.1-beta-5 -Dpackaging=jar*

*mvn install:install-file -Dfile=<JAR\_FOLDER>\HubInterface-4.2.7.jar -DgroupId=com.git.mds -DartifactId=HubInterface -Dversion=4.2.7 -Dpackaging=jar*

*mvn install:install-file -Dfile=<JAR\_FOLDER>\Config-1.0.jar -DgroupId=com.git.oms.cfg -DartifactId=Config -Dversion=1.0 -Dpackaging=jar*

*mvn install:install-file -Dfile=<JAR\_FOLDER>\HubInterfaceRv-4.2.1.jar -DgroupId=com.git.mds.requester.rv -DartifactId=HubInterfaceRv -Dversion=4.2.1 -Dpackaging=jar*

#### Step 2

Modify webapp pom file for update above dependency.

*<dependency>  
 <groupId>com.git.framework.rv</groupId>  
 <artifactId>RVFrameWork</artifactId>  
 <version>1.5</version>  
</dependency>*

*<dependency>  
 <groupId>com.git.mds.core</groupId>  
 <artifactId>MDSCore4</artifactId>  
 <version>4.2.1</version>  
</dependency>*

*<dependency>  
 <groupId>com.git.mds.common</groupId>  
 <artifactId>MDSCommon</artifactId>  
 <version>4.2.2</version>  
</dependency>*

*<dependency>  
 <groupId>org.jaxen</groupId>  
 <artifactId>jaxen</artifactId>  
 <version>1.1-beta-5</version>  
</dependency>*

*<dependency>  
 <groupId>com.git.mds.requester.rv</groupId>  
 <artifactId>HubInterfaceRv</artifactId>  
 <version>4.2.1</version>  
</dependency>*

*<dependency>  
 <groupId>com.git.oms.cfg</groupId>  
 <artifactId>Config</artifactId>  
 <version>1.0</version>  
</dependency>*

*<dependency>  
 <groupId>com.git.mds</groupId>  
 <artifactId>HubInterface</artifactId>  
 <version>4.2.7</version>  
</dependency>*

*<dependency>  
 <groupId>com.tibco.tibrv</groupId>  
 <artifactId>tibrvj</artifactId>  
 <version>1.0</version>  
</dependency>*

#### Step 3

Set TIBCO bin and lib folder location to PATH environment variable.

#### Step 4

Copy the FIELDS.DEF and rvconfig.xml to resource folder of webapp.

rvconfig.xml has the MDS server configuration . 192.168.39.11 is the test server IP.

#### Step 5

Restart the system

**Note:**The above methods will permanently modify the PATH variable. We have another option as well (ideally this option we should use). During start-up of glassfish server set the env variables.

Create a .bat/.sh file , first statement in the file should be the environment variable settings, then command to start Glassfish server

SET PATH= %PATH%;<TIBCO\_LOCATION>/bin;

SET PATH= %PATH%;<TIBCO\_LOCATION>/lib

CD <galssfishserver\_bin\_path>

asadmin start-domain doamin1

# Configuration in Linux

#### Prerequisite

To integrate MDS in Linux machine, need to install TIB\_rv\_7.4.1\_linux24g123\_x86.

#### Step 1

Install TIBRV in Linux

* Copy file to a directory
* Extract file using - tar -xvf <FILE\_NAME>
* In extracted folder move to LINUX24GL23/X86 and install using - ./INSTALL

#### Step 2

Environment variable details

To work TIBRV in Linux PATH, LD\_LIBRARY\_PATH and CLASSPATH variable should have entries /usr/tibco/tibrv/bin, /usr/tibco/tibrv/lib and /usr/tibco/tibrv/lib/tibrvnative.jar respectively

#### Step 3

Configure the above environment variable and start application server (Glassfish server)

* Create a .sh file with following entries

export PATH = /usr/tibco/tibrv/lib;$PATH

export LD\_LIBRARY\_PATH = /usr/tibco/tibrv/lib:$LD\_LIBRARY\_PATH

export CLASSPATH = /usr/tibco/tibrv/lib/tibrvnative.jar:$ CLASSPATH

cd<GLASSFISH\_HOME>/bin

asadmin start-domain domain1

**Note:**

In MMF war have windows compatible tibrvj.jar, this will not work with Linux. So before deploy the war, need to replace the windows compatible tibrvj.jar (available at /usr/tibco/tibrv/lib/) with Linux compatible tibrvj.jar.

This can be done be open the mmf.war using WinRar then

* Open WEB-INF/lib folder
* Remove existing tibrvj.jar
* Drag Linux compatible tibrvj.jar

# TWR Calculation

TWR calculation is based on market value and cash value. The following example shows how to calculate the TWR for period 01-06-2014 to 03-06-2014.

Abbreviations used:

* + - MV - Market Value
    - CF - Cash Flow
    - MVACF - Market Value After Cash Flow

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | DATE | MV | CF | MVACF | Sub-period return |
| START PERIOD | 01-06-2014 | ₹ 1,10,000.00 | ₹ 1,00,000.00 | ₹ 1,00,000.00 | 0.00% |
|  | 02-06-2014 | ₹ 1,20,000.00 | ₹ 20,000.00 | ₹ 1,30,000.00 | 10.00% |
| END PERIOD | 03-06-2014 | ₹ 1,30,000.00 | ₹ 0.00 | ₹ 1,20,000.00 | -7.69% |
|  |  |  |  | TWR = | 1.54% |

Market value after cash flow (MVACF) can be calculated by using the formula

**Previous day’s MV +/ - current day’s CF.**

For the first the day, we take MV of previous day is ZERO. While Considering our example,

MVACF of 02-06-2014 is 0 + 1,00,000.00 = 1,00,000.00.

For the starting day, sub period return is ZERO.

For calculate the sub period of other dates, use the formula

( **(Previous day’s MV - Previous day’s MVACF) / Previous day’s MVACF ) \* 100.**

Hence in our example, sub period return of 02-06-2014 is

((1, 10,000.00 - 1, 00,000.00) / 1, 00,000.00) \* 100 = 10 %.

Finally TWR can be calculated by taking **the product of (1 + each sub period return) – 1.**Let’s consider our example,

TWR = (((1+ .10) \* (1+-.0769)) – 1) \* 100 = 1.54%.