Deploying Rational Requirement Composer Server and Rational Team Concert Server into the same WebSphere Application Server or Apache Tomcat Server

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Title: Deploying Rational Requirement Composer Server and Rational Team Concert Server into the same WebSphere Application Server or Apache Tomcat Server

Abstract: This paper describes the process for deploying the Rational Requirement Composer Server when the Rational Team Concert Server is already installed on either WebSphere Application Server or Apache Tomcat Server

Background: For this scenario, you already have the Rational Team Concert V2.0 Server running with WebSphere Application Server or with the provided Apache Tomcat server, and now you want to deploy the Rational Requirement Composer V2.0 server in the same single application server.

Symptom: Rational Team Concert V2.0 Server and Rational Requirement Composer V2.0 Server share some similarly-named WAR files and configuration directories, which cannot both be deployed on one application server like WebSphere Application Server or Apache Tomcat Server as they are.

Resolution: To customize and have maximum use of WebSphere Application Server or Apache Tomcat Server, you must use the following procedure so that both applications can be deployed on a single WebSphere Application Server or Apache Tomcat Server

Prerequisite: This document assumes that you have already deployed and properly configured the Rational Team Concert V2.0 Server on WebSphere Application Server or Apache Tomcat Server.

A. Merge the Rational Requirement Composer V2.0 Server files with Rational Team Concert 2.0 Server

1. Install the Rational Requirement Composer V2.0 Server by using the recommended Installation Manager version.

2. Copy the following Rational Requirement Composer V2.0 Server Web application WAR files to the Rational Team Concert V2.0 server:

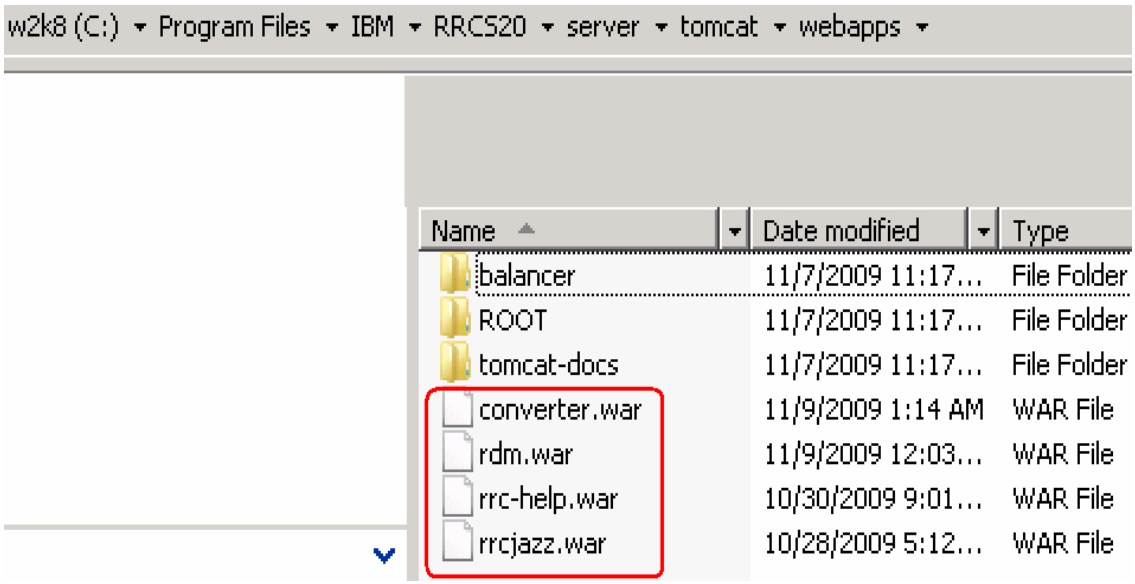
a. Copy `RRCS20\server\tomcat\webapps\converter.war` to `RTCServer\jazz\server\tomcat\webapps\converter.war`

b. Copy `RRCS20\server\tomcat\webapps\rdm.war` to `RTCServer\jazz\server\tomcat\webapps\rdm.war`

c. Copy `RRCS20\server\tomcat\webapps\rrc-help.war` to `RTCServer\jazz\server\tomcat\webapps\rrc-help.war`

d. Rename `RRCS20\server\tomcat\webapps\jazz.war` to `rrcjazz.war`

e. Copy `RRCS20\server\tomcat\webapps\rrcjazz.war` to `RTCServer\jazz\server\tomcat\webapps\rrcjazz.war`

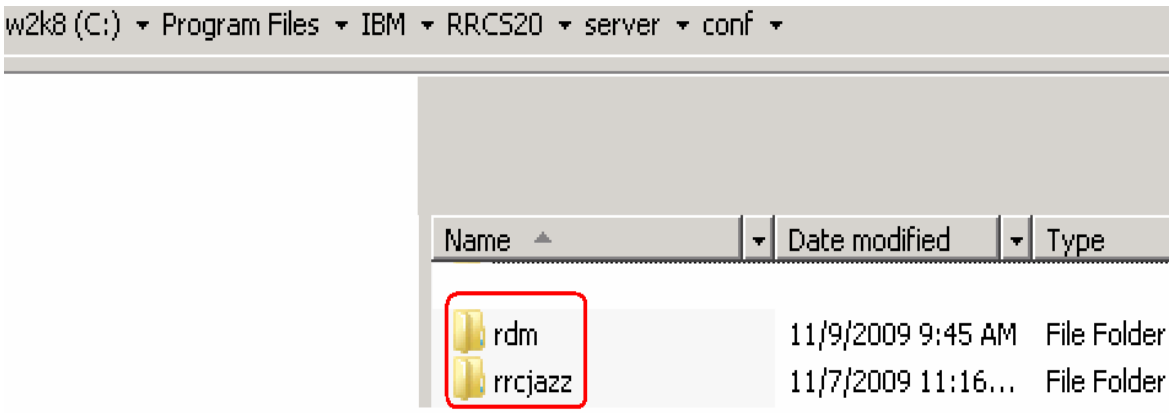


3. Copy the following Rational Requirement Composer V2.0 Server configuration directories to Rational Team Concert V2.0 Server configuration directory:

a. Copy `RRCS20\server\conf\rdm` to `RTCServer\jazz\server\conf`

b. Rename `RRCS20\server\conf\jazz` to `rrcjazz`

c. Copy `RRCS20\server\conf\rrcjazz` to `RTCServer\jazz\server\conf`



4. Copy the Jazz update site from the Rational Requirement Composer V2.0 Server to Rational Team Concert V2.0 Server:

a. Rename `RRCS20\server\update-site` to `rrcjazz-update-site` and copy it to `RTCServer\jazz\server`

b. If applicable, copy then accompanying language update site:

i. Rename `RRCS20\server\nl1-update-site` to `nl1-rrcjazz-update-site` and copy into `RTCServer\jazz\server`

5. Modify the jazz provision profiles to point to the renamed jazz update sites:

a. Modify `RTCServer\jazz\server\conf\rrcjazz\provision_profiles\profile.ini`

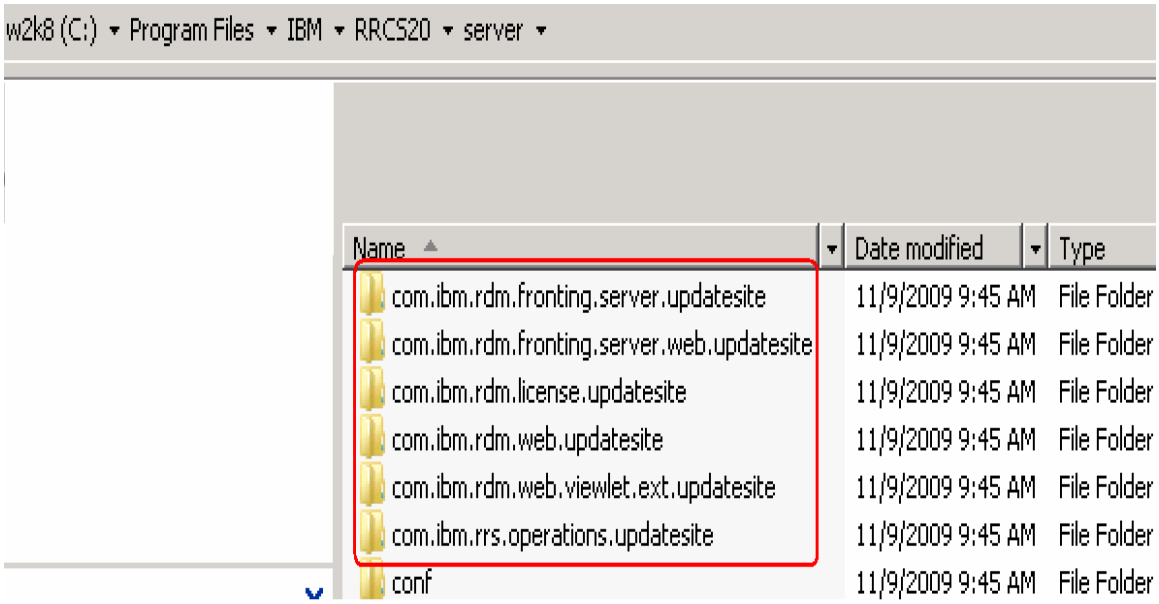
i. Change: `url=file:../update-site` to `url=file:../rrcjazz-update-site`

6. If applicable, modify the accompanying language profile:

a. `RTCServer\jazz\server\conf\rrcjazz\provision_profiles\nl1profile.ini`

i. Change: `url=file:../nl1-update-site` to `url=file:../nl1-rrcjazz-update-site`

7. Copy the Rational Requirement Composer V2.0 Server update sites to the Rational Team Concert Server:



a. Copy `RRCS20\server\com.ibm.rdm.fronting.server.updatesite` to `RTCServer\jazz\server\com.ibm.rdm.fronting.server.updatesite`

b. Copy `RRCS20\server\com.ibm.rdm.fronting.server.web.updatesite` to `RTCServer\jazz\server\com.ibm.rdm.fronting.server.web.updatesite`

c. Copy `RRCS20\server\com.ibm.rdm.license.updatesite` to `RTCServer\jazz\server\com.ibm.rdm.license.updatesite`

d. Copy `RRCS20\server\com.ibm.rdm.web.updatesite` to `RTCServer\jazz\server\com.ibm.rdm.web.updatesite`

e. Copy `RRCS20\server\com.ibm.rdm.web.viewlet.ext.updatesite` to `RTCServer\jazz\server\com.ibm.rdm.web.viewlet.ext.updatesite`

f. Copy `RRCS20\server\com.ibm.rrs.operations.updatesite` to `RTCServer\jazz\server\com.ibm.rrs.operations.updatesite`

8. If applicable, copy the corresponding language update sites:

a. Copy `RRCS20\server\com.ibm.rdm.fronting.server.updatesite.nl1` to `RTCServer\jazz\server\com.ibm.rdm.fronting.server.updatesite.nl1`

b. Copy `RRCS20\server\com.ibm.rdm.fronting.server.web.updatesite.nl1` to `RTCServer\jazz\server\com.ibm.rdm.fronting.server.web.updatesite.nl1`

c. Copy `RRCS20\server\com.ibm.rdm.web.updatesite.nl1` to `RTCServer\jazz\server\com.ibm.rdm.web.updatesite.nl1`

d. Copy `RRCS20\server\com.ibm.rdm.web.viewlet.ext.updatesite.nl1` to `RTCServer\jazz\server\com.ibm.rdm.web.viewlet.ext.updatesite.nl1`

e. Copy `RRCS20\server\com.ibm.rrs.operations.updatesite.nl1` to `RTCServer\jazz\server\com.ibm.rrs.operations.updatesite.nl1`

9. Rename `RRCS20\server\repositoryDB` to `rrcjazz-repositoryDB` and copy it to `RTCServer\jazz\server\`

10. Modify `RTCServer\jazz\server\conf\rrcjazz\teamserver.properties`:

a. Change: `com.ibm.team.repository.db.jdbc.location=repositoryDB` to `com.ibm.team.repository.db.jdbc.location=rrcjazz-repositoryDB`

B. If you are using an Apache Tomcat Server to run applications, use the following procedure:

1. Add the required parameters and increase the maximum memory to the recommended size for running Rational Requirements Composer V2.0 Server by editing the `RTCServer\jazz\server.startup.bat` file

2. Modify or add this line `JAVA_OPTS= -Xmx1536M`

3. In the server.startup.bat file from the Rational Requirement Composer V2.0 server that is located under `<RRCS20>\server\server.startup.bat`, locate the line that starts with:

```
set CATALINA_OPTS=
```

Copy the entire line and add into `<RTCServer>\jazz\server\server.startup.bat;` ensure that it occurs before the line:

```
call "%CATALINA_HOME%"\bin\startup.bat
```

4. Start the Apache Tomcat server that contains both the Rational Team Concert and Rational Requirements Composer server applications by running `server.startup.bat`.

C. If you are using WebSphere Application Server to run applications, use the following procedure:

1. Add the following custom properties values into Java Virtual Machines for WebSphere Application Server:

a. Open the Administrator Console window for WebSphere Application Server.

b. Select **Server > Application Server > [servername] > Expand Java Process Management > Process Definition > Java Virtual Machine > Custom Properties.**

c. Add `java.awt.headless = true`

d. Add `org.eclipse.emf.ecore.plugin.EcorePlugin.doNotLoadResourcesPlugin = true`

e. Add `com.ibm.team.jfs.app.servlet.useGzip = true`

f. Add `com.ibm.team.jfs.app.transport.useDispatch = true`

g. Add `com.ibm.team.jfs.app.context.conf = file:///<Drive>:/RTC_Enterprise_Server_2.0.0.1/jazz/server/conf/rdm`

h. Make sure you have `JAZZ_HOME = file:///<Drive>:/RTC_Enterprise_Server_2.0.0.1/jazz/server/conf` (in this folder you should have your rdm and rrcjazz folder).

2. Deploy the following WAR files for Rational Requirement Composer V2.0 Server as you have deployed WAR file for Rational Team Concert V2.0 Server:

a. Deploy the `rrcjazz.war`, `rdm.war`, `converter.war`, `rrc-help.war` files to WebSphere Application Server.

b. Map Security Roles to users or groups for the `rrcjazz.war` file.

a. Start all newly installed applications.

D. Configure Rational Requirement Composer V2.0 Server:

1. Run the Rational Requirement Composer V2.0 Server setup from your Firefox or IE browser (please verify browser requirement in your product installation guide) eg: `https://www.example.com:9443/rdm/setup`

2. Run through the setup for Rational Requirement Composer V2.0 Server product installation guide. When you are prompted, point to the appropriate updated location for the JFS application:

`https://www.example.com:9443/`**`rrcjazz`**

E. Verification of Rational Requirement Composer V2.0 Server and Rational Team Concert.

After running setup, verify that the configuration files properly reference the correct '**rrcjazz**' context:

1. `RTCServer\jazz\server\conf\rdm\fronting.properties` displays:`com.ibm.rdm.fronting.server.serverBaseUrl=https://www.example.com:9443/rrcjazz`

2. RTC\jazz\server\conf\rdm\friendsconfig.rdf displays:

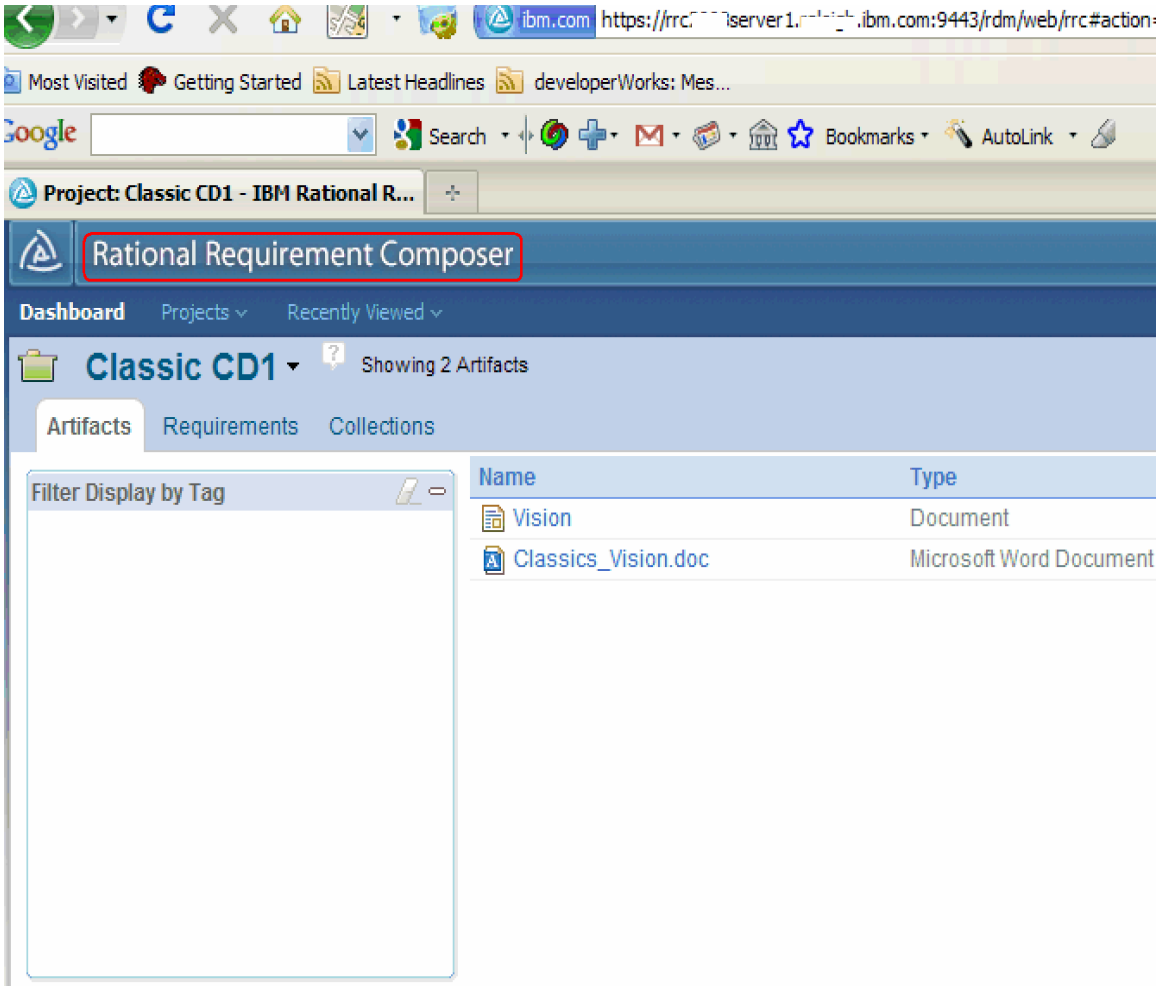
```
<jfs:oauthDomain> ' class='inlinelink'
target="_blank">https://server hostname or IP
address:9443/rrcjazz</jfs:oauthDomain> ;
<jd:rootServices
rdf:resource="https://www.example.com/rrcjazz/rootservices"
/>
```

3. Also verify Rational Requirement Composer V2.0 Server administrator page by opening the Web admin UI in your Web browser:

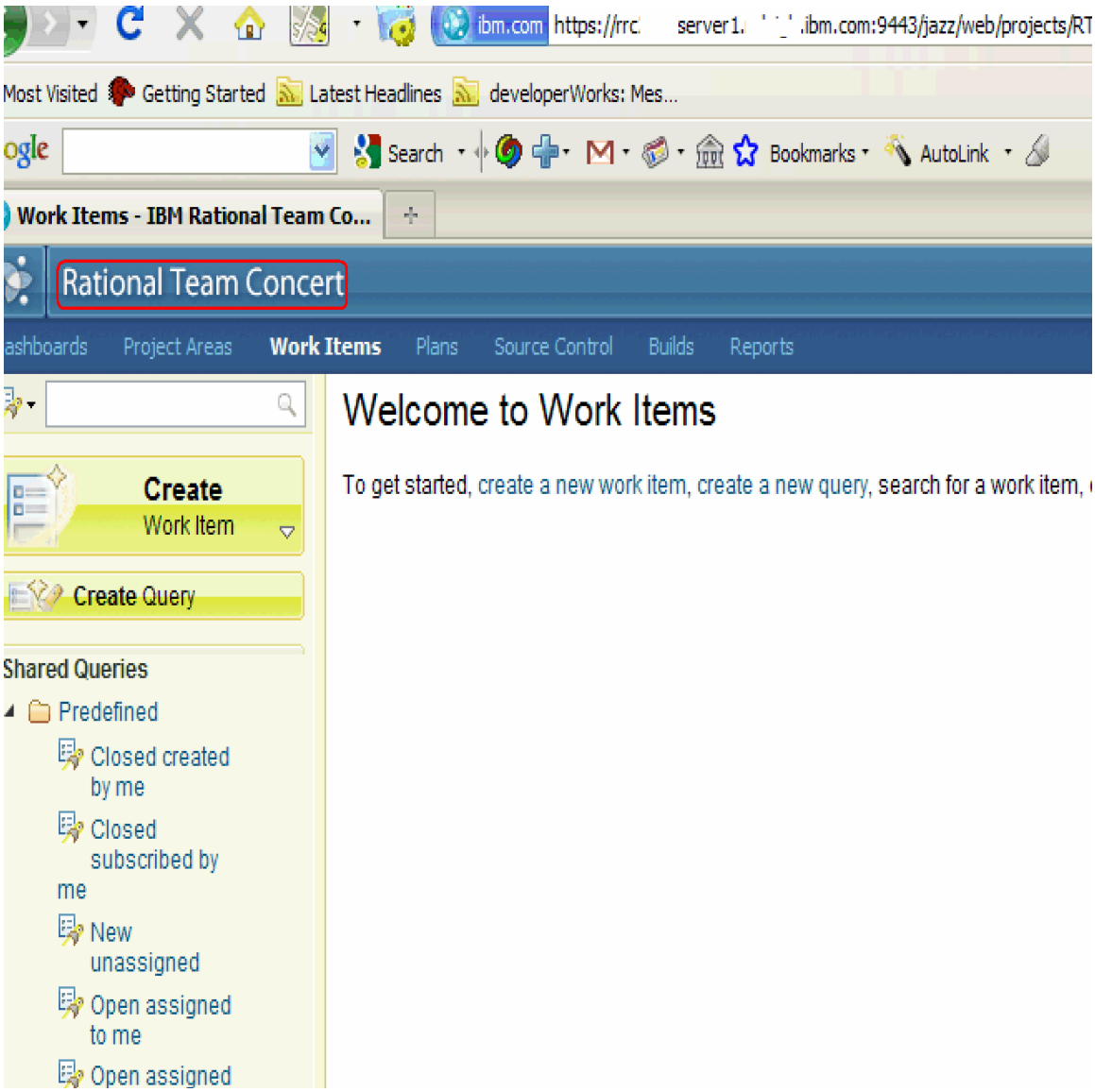
Eg. `https://www.example.com:9443/rrcjazz/admin`

4. Additionally, make sure that the Rational Team Concert Server can be accessed successfully.

5. Verify by logging in to the Rational Requirement Composer 2.0 Server Web client; you might see the following page:



The Rational Team Concert V2.0 Server might look like the following example:



A note about Collaborative Application Lifecycle Management (C/ALM) integration when using multiple applications on the same server

When running both Rational Team Concert and Rational Requirements Composer on a single application server, note that the C/ALM functionality from both products is not currently supported in this configuration. If you want to use C/ALM, then each application must run in its own application server at this time.