

Retek[®] Service Layer[™] 11.0.2

Installation Guide

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Chapter 1 – RSLfor<App> Installation and Configuration

Introduction

RSL “applications” only exist for non-Java/J2EE service providers such as RMS (Oracle Forms based). Other implementations of RSL exist but are bundled within other Retek J2EE applications and are installed as part of those applications.

Ensure that the Service Providing Application has all of the RSL components installed (e.g. Stored Procedures, Tables, Oracle Objects). Refer to that application’s installation guide for specifics.

The RSL server tier is packaged as an EAR file – rsl-rms.ear. The following are typical steps for deploying an ear file in WebSphere 5.1, assuming WebSphere Application Server (WAS) and IBMHttpServer have already been installed. Also following are configuration steps required for installing an RSLfor<App> component in WebSphere 5.1. Currently RSL provides an implementation for integrating applications to RMS; RPM is the only Retek J2EE application that provides an implementation of RSL integrated with their application.

An application-specific version of RSL in a J2EE environment is referred to as RSLfor<App> (for this release only RSLforRMS). This application is packaged as an EAR file that can be deployed in WebSphere.

UNIX (Sun Solaris/HPUX/AIX)



Note: WAS_HOME refers to the location where WebSphere is installed for RSL (e.g. /u00/webasp/WebSphere/AppServer). WAS_INSTANCE_HOME refers to the specific application server instance that the RSLfor<App> application will be deployed in. (e.g. /u00/webasp/WebSphere/rslddev). If the WebSphere server installation uses only one instance, then WAS_HOME will be the same as WAS_INSTANCE_HOME.

RSL should be installed in its own WebSphere server and should no coexist with other Retek products running in the same WebSphere server. Multiple WebSphere servers running within a single WAS instance can be used.

Deploy rsl-rms.ear in WebSphere Application Server 5.1

Configuration scripts are provided to create and configure the JDBC DataSources in WebSphere using jacl scripts.

- 1 Log into the UNIX webserver where WebSphere 5.1 is installed as the retek user and determine where the RSM 11.0.1 application server file (rslpak1102for<app><app_version>_eng_ga.tar) will be installed. There should be a minimum of 25 MB disk space available for the application installation files.
- 2 Copy rslpak1102for<app><app_version>_eng_ga.tar located at CD/appserverunix to a newly created staging directory on the UNIX server.

- 3 Change directories to the location of `rslpak1102for<app><app_version>_eng_ga.tar` and extract this file. This will create two directories: `/BOM` and `/RSL1102for<App>`. `RSL_INSTALL_HOME` refers to the directory structure including the newly created `/RSL1102for<App>`



Example: `/u00/webasp/rsl11/RSL1102forRMS`

- 4 Edit the following parameters in the `RSL_INSTALL_HOME/config/rsl-config.properties` file to configure WebSphere for the `RSLfor<App>` application.

- **WAS_HOME:** Value of `WAS_HOME`
(e.g. `/u00/webasp/WebSphere/AppServer`)
- **WAS_INSTANCE_HOME:** Value of `WAS_INSTANCE_HOME`
(e.g. `/u00/webasp/WebSphere/AppServer`)
- **APP_EAR:** Fully qualified path to the `rsl-<app>.ear` file, including the ear file
(e.g. `/u00/webasp/rsl11/RSL1102forRMS/ear/rsl-rms.ear`)
- **APP_NAME:** Application name
(e.g. `rsl-rms`)
- **host_name:** Host name of the server where WebSphere is installed
(e.g. `server`)
- **cell:** The cell name of the WebSphere instance where the `RSLfor<App>` application will be installed. The cell name can be determined by the name of the directory under `WAS_INSTANCE_HOME/config/cells`
(e.g. `serverxxxx`)
- **node:** Node name of the WebSphere instance where the `RSLfor<App>` application will be installed. The node name can be determined by the name of the directory under `WAS_INSTANCE_HOME/config/cells/<cell name>/nodes`
(e.g. `serverxxxx`)
- **serverName:** Server name within the WebSphere instance where the `RSLfor<App>` application will be installed. The server name can be determined by the name of the directory under `WAS_INSTANCE_HOME/config/cells/<cell name>/nodes/<node name>/servers`. The default server name is `server1`
(e.g. `server1`)
- **was_soap_port:** SOAP port which the above `serverName` utilizes
(e.g. `8880`)
- **datasourceJarPath:** Path to and including the oracle driver file `ojdbc14.jar`. The directory structure for this path and the placement of the driver file is created by the script `rslinstall.sh`, so path does not exist yet. The path will be `INSTANCE_HOME/rsl-<app>` when `rslinstall.sh` is run.
(e.g. `/u00/webasp/WebSphere/AppServer/rsl-rms/ojdbc14.jar`)
- **datasourceJdbcUrl:** JDBC URL to the `<App>` database
(e.g. `jdbc:oracle:thin:@dbserver01:1521:dbname`)

- **datasourceUserId:** <App> schema username for the <App> database
(e.g. rms11dev)
- **datasourcePassword:** <App> schema user password for the <App> database
(e.g. retek)
- **datasourceAlias:** Name of the Java 2 Connector Security Alias to be created for registering the user and password information for the <App> database. The following default setting must be used: datasourceAlias=RSLAlias
- **datasourceName:** Name given to the resource to be used when accessing the database. The following default setting must be used: datasourceName=Oracle Rsl Datasource
- **datasourceJndiName:** JNDI name for the datasource. The following default setting must be used: datasourceJndiName=jdbc/OracleRslDs

Hibernate Properties file

Hibernate is used for Object Relational Mapping and Database interaction within the RSL code. Edit the file RSL_INSTALL_HOME/properties/hibernate.cfg.xml to define the <App> database information: the following properties in this file need to be edited before the RSLfor<App> application can be run. During the install process, hibernate.cfg.xml is copied to a WAS_HOME/rsl-<app> directory.

- “connection.url” – the string url to connect to that database. These values should be the same values as used in the paramter datasourceJdbcUrl in rsl-config.properties as modified in the previous section
- “connection.username” – the username to connect to that database. This value should be the same value as used in the paramter datasourceUserId in rsl-config.properties as modified in the previous section
- “connection.password” – the password to connect to that database. This value should be the same value as used in the paramter datasourcePassword in rsl-config.properties as modified in the previous section

Install RSL<App>

Ensure the WebSphere Application Server is running. From RSL_INSTALL_HOME, run the rslinstall.sh script. This will perform the following:


- Creates a new directory under \$WAS_HOME called rsl-<app>. This will be referred to as RSL_LIB
- Copies the jar file from the \$RSL_INSTALL_HOME/rsl-<app>/oracle directory to this new RSL_LIB directory
- Copies the files from the \$RSL_INSTALL_HOME/properties directory to this new RSL_LIB directory
- Runs the configure.sh script from the \$RSL_INSTALL_HOME/config directory to create the JDBC DataSource and the RSL-LIB shared library
- Runs the rsladmin.sh script to install the rsl-<app>.ear file
- Restarts WebSphere


After the script has successfully run, verify that the application is running and the Oracle DataSource was configured properly by verifying the following information in the WebSphere Administration Console:

- **Application is running:** From the WebSphere Admin Console, click on Applications -> Enterprise Applications. If the application started it will show a green arrow next to the application name. If errors occurred, a red x will be shown next to the application name. Check the WebSphere log files (in the \$WAS_INSTANCE_HOME/logs/<server-name> directory) in order to troubleshoot the error.
- **Oracle DataSource:** From the WebSphere Admin Console, click Resources -> JDBC Providers. You will see “Oracle JDBC Thin Driver (XA)” as the available resource. All of the <App> DataSources are defined here. The “Oracle Rsl Datasource” is the DataSource that the RSL utilizes.

Configure WebSphere 5.1 Application Server for RSL 11

- 1 Open the WebSphere Administrative Console that is to be used for administering the RSL 11 application – <http://<server>:<port>/admin>. If the administrative console url is unknown, consult the WebSphere 5.1 documentation for the correct URL
 - server = name or IP address of the server where WebSphere 5.1 is running
 - admin_port = WebSphere Admin Console Port

 **Example:** <http://server:9090/admin>
- 2 Click on Applications->Enterprise Applications.
- 3 Click on the RSLfor<App> application link to load the RSLfor<App> application configuration page.
- 4 In the General Properties section, set the Classloader Mode property to PARENT_LAST.
- 5 Click on Environment->Shared Libraries, and verify that the RSL_LIB library is one of the available libraries. If RSL_LIB is not available, it will have to be created by clicking the New button. Enter the following information in the specified fields:
 - Name = RSL_LIB
 - Classpath = WAS_HOME/rsl-rms (same path as set in datasourceJarPath above)

 **Example:** /u00/websp/WebSphere/AppServer/rsl-rms

Click Apply. Click OK.
- 6 Click on Applications->Enterprise Applications.
- 7 Click on the RSLfor<App> application link to load the RSLfor<App> application configuration page again.
- 8 In the Additional Properties section, click the Libraries link.
- 9 Click the Add button and select RSL_LIB from the drop-down list to add the newly created RSL_LIB library to the RSLfor<app> application. Click Apply. Click OK.
- 10 Save the RSL_for<App> application changes by clicking the [Save](#) link in the Message(s) section, and then by clicking the Save button in the Save to Master Configuration section.

- 11 Click on Resources->JDBC Providers->Browse to the correct node and server if necessary and click Apply. Click the Oracle JDBC Thin Driver (XA) link and then click Data Sources in the Additional Properties section. Verify that “Oracle Rsl Datasource” is the Name of the Data Source and that ”jdbc/OracleRslDs” is the JNDI Name of the Data Source that RSL utilizes.
- 12 If any necessary changes have been made but not saved in the previous steps, save these configuration changes by clicking the [Save](#) link in the Message(s) section, and then by clicking the Save button in the Save to Master Configuration section.
- 13 Stop and restart the RSLfor<App> application from the Enterprise Application page. The RSLfor<App> should have a solid green arrow indicating successful startup.

Chapter 2 – RSL deployment command-line utility

rsladmin

The command-line utility performs server-side administrative functions for the RSLfor<App> application. This utility can be used following the initial installation of the RSLfor<App> as described in the previous chapter.

Commands

The following commands are available for this utility:

- **bounce:** Stops and restarts the application server for \$INSTANCE_HOME.
- **stop:** Stops the application server for \$INSTANCE_HOME.
- **start:** Starts the application server for \$INSTANCE_HOME.
- **dellogs:** Deletes *.log from the \$WAS_INSTANCE_HOME/logs/<server-name>.
- **install:** Installs the RSLfor<App> application on \$INSTANCE_HOME.
- **uninstall:** Uninstalls the RSLfor<App> application from \$INSTANCE_HOME.
- **reinstall:** Reinstalls the RSLfor<App> application on \$INSTANCE_HOME.

Usage

Run this utility by using the following command:

```
rsladmin.sh <command>
```

Using the rsladmin script for re-installing the RSLfor<App>:

If the RSLFor<App> application had been previously installed, follow these steps to re-install it:

- 1 Edit the properties in the rsladmin.sh file for the instance of WebSphere the application will be installed on. To generate the deployed ear file, run:

```
rsladmin.sh install
```

- 2 Uninstall the previous RSLfor<App> instance:

```
rsladmin.sh uninstall
```

- 3 Bounce the WebSphere server to accept the changes and start the RSLfor<App> application by running:

```
rsladmin.sh bounce
```

After installation, verify that the RSLfor<App> application is running by following the steps described in the last section of the previous chapter.