

Oracle® Retail Store Inventory Management
Installation Guide
Release 12.0

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Preface

Oracle Retail Installation Guides contain the requirements and procedures that are necessary for the retailer to install Oracle Retail products.

Audience

This Installation Guide is written for the following audiences:

- Database administrators (DBA)
- System analysts and designers
- Integrators and implementation staff

Related Documents

For more information, see the following documents in the Oracle Retail Store Inventory Management Release 12.0 documentation set:

- Oracle Retail Store Inventory Management Release Notes
- Oracle Retail Store Inventory Management Implementation Guide
- Oracle Retail Store Inventory Management Operations Guide
- Oracle Retail Store Inventory Management Data Model
- Oracle Retail Store Inventory Management Licensing Information
- Oracle Retail Store Inventory Management Online Help
- Oracle Retail Store Inventory Management User Guide
- Oracle Retail Store Inventory Management Handheld Terminal Quick Reference Guide
- Oracle Retail Store Inventory Management Data Migration Guide

Customer Support

- <https://metalink.oracle.com>

When contacting Customer Support, please provide:

- Product version and program/module name.
- Functional and technical description of the problem (include business impact).
- Detailed step-by-step instructions to recreate.
- Exact error message received.
- Screen shots of each step you take.

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement “the Window Name window opens.”

Note: This is a note. It is used to call out information that is important, but not necessarily part of the procedure.

This is a code sample
It is used to display examples of code

[A hyperlink appears like this.](#)

Pre-Installation Tasks

Check Database Server Requirements

General Requirements for a database server running SIM include:

- UNIX based OS certified with Oracle RDBMS 10g Enterprise Edition (options are Sun Solaris 9, AIX 5.3, or Oracle Enterprise Linux 4 (OEL4))
 - Linux requirements
 - Oracle Enterprise Linux 4 Update 4 for x86-64
 - Minimum kernel version kernel-smp-2.6.9-42.0.0.1.EL.x86_64
- Oracle RDBMS 10g Release 2 Enterprise Edition
 - Sun Solaris 9, AIX 5.3 require minimum 10.2.0.2.0 patchset

Patches:

- 5087548 (POST 10.2.0.2 PERMISSIONS ARE STILL WRONG FOR NETWORK/ADMIN AND LDAP DIRECTORIES)

- Oracle Enterprise Linux 4 (OEL4) requires minimum 10.2.0.3 patchset

Patches:

- 5397953 (ORA-07445: [KKPAPITGETALL()+2152] [SIGSEGV] [ADDRESS NOT MAPPED TO OBJECT])

Components:

- Oracle Database 10g
- Oracle Partitioning
- Oracle Net Services
- Oracle Call Interface (OCI)
- Oracle Programmer
- Oracle XML Development Kit
- ANSI compliant C compiler (certified with OS and database version)
- Perl compiler 5.0 or later
- x-Windows interface

Check Application Server Requirements

General requirements for an application server capable of running SIM include:

- UNIX based OS certified with Oracle Application Server 10g version 10.1.3. (options are AIX5.3, Solaris 9)
- Oracle Application Server 10g version 10.1.3 with the following patches:
 - 4992357 (ILLEGALACCESSERROR WHEN ATTEMPTING TO LOAD ORACLE.SQL.CHARACTERSET CLASS)
 - 4959854 (CANNOT RESTART MDB THROUGH OC4J ASCONSOLE)
 - 4645524 (RETEK : RMIINITIALCONTEXTFACTORY DOES NOT WORK PROPERLY WITH GLOBAL JNDI)
 - 4619599 (ABILITY TO CONTROL MDBS INITIAL STATE)

Note: This release of SIM is only supported in a managed OC4J instance as part of OracleAS 10g. It is not supported on OC4J standalone

Check Directory Server Requirements

SIM uses directory server based user authentication and searching. For LDAP, SIM is certified with the following directory servers:

- Oracle Internet Directory 10.1.2.0.2*
- OpenLDAP version 2.x**

There are no known limitations that would prevent SIM from running against any LDAP 3.0-compliant directory server.

Check Third-Party Software Dependencies

- Hibernate 2.1.8 must be downloaded and the hibernate2.jar file must be extracted. The SIM application installation procedure specifies how to install this file.
- Oracle Business Intelligence Publisher Enterprise 10.1.3.2
- Oracle Retail Wireless Foundation Server –provided by Wavelink 4.x

Check Client PC and Web Browser Requirements

Client PC Requirements

- Operating system: Windows 2000 or XP
- Display resolution: 1024x768
- Processor: 1GHz or higher;
- Memory :512MBytes or higher;
- Sun Java Runtime Environment 5.0 Update 11 or newer (1.5.0_11)

Browser Requirements

The browser is used to launch the Java WebStart client. The following browsers are supported:

- Microsoft Internet Explorer 5.5 or higher

Oracle Retail Dependencies

The following Oracle Retail products can be integrated with SIM. Next to each product is an indication of whether it is required or optional for SIM to function properly:

- Retail Integration Bus (RIB) 12.0.1 and all subsequent patches and hot fixes – Required
 - RIBforSIM is a separately-packaged component that connects SIM to the RIB. Although typically used to integrate SIM with RMS, RIB can also be used to integrate SIM with other merchandising systems.

Note: RIB requires custom modifications to use a merchandising system other than RMS

- Retail Merchandising System (RMS) 12.0.5 – Optional
- Retail Service Layer for RMS (RSLforRMS) 12.0.1 – Optional

- Retail Price Management (RPM) 12.0.5 – Optional

The above products can be installed before or after SIM. However, it is helpful to know the connection details for the other products ahead of time so that you can provide them to the SIM application installer, which will configure the connection points for you.

Database Installation Tasks

Expand the SIM Database Schema Installer Distribution

1. Log into the UNIX server as a user which has sufficient access to run sqlplus from the Oracle RDBMS installation.
2. Create a new staging directory for the SIM database schema installer distribution (sim12dbschema.zip). There should be a minimum of 50 MB disk space available for the database schema installation files. This location is referred to as INSTALL_DIR for the remainder of this chapter.
3. Copy sim12dbschema.zip to <INSTALL_DIR> and extract its contents.

Create Tablespaces

Before you run the SIM database schema installer, make sure that the following tablespaces have been created in the database: RETEK_INDEX, RETEK_DATA, USERS, and LOB_DATA. Below are sample tablespace creation statements for these tablespaces. Oracle Retail recommends the use of locally managed tablespaces with automatic extent and segment space management.

Note: These tablespaces are not sized for a production environment.

```

CREATE TABLESPACE RETEK_INDEX DATAFILE
  '/u01/oradata/$ORACLE_SID/retek_index01.dbf' SIZE 500M
  AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE RETEK_DATA DATAFILE
  '/u01/oradata/$ORACLE_SID/retek_data01.dbf' SIZE 500M
  AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE USERS DATAFILE
  '/u01/oradata/$ORACLE_SID/users01.dbf' SIZE 100M
  AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE LOB_DATA DATAFILE
  '/u01/oradata/$ORACLE_SID/lob_data01.dbf' SIZE 50M
  AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL
  SEGMENT SPACE MANAGEMENT AUTO
;

```

Create the SIM Database User

The user in the database which will own the SIM tables must be created prior to running the SIM database schema installer. A create_user.sql script has been provided that can be used for this:

1. <INSTALL_DIR>/sim/dbschema/dbscripts/utility/create_user.sql.
2. The script takes three arguments on the command line in sqlplus: username, password, and temporary tablespace.

Example: SQL> @create_user.sql SIM12USER mypassword
TEMP

3. Review this script and run it as a user with adequate permissions, such as SYSTEM.

Run the SIM Database Schema Installer

This installer installs the SIM database schema, compiles SIM objects, inserts SIM data, and produces the sim_dba.sql script.

Note: Appendix B contains details on every screen and field in the database schema installer.

1. Expand the sim12dbschema.zip distribution into <INSTALL_DIR>.
2. Set the following environment variables:
 - Set the ORACLE_HOME to point to an installation that contains sqlplus. It is recommended that this be the ORACLE_HOME of the SIM database.
 - Set the PATH to: \$ORACLE_HOME/bin:\$PATH.
 - Set the ORACLE_SID to the name of your database.
 - Set the NLS_LANG for proper locale and character encoding.

Example: NLS_LANG=AMERICAN_AMERICA.UTF8

3. If you are using an X server such as Exceed, set the DISPLAY environment variable so that you can run the installer in GUI mode (recommended). If you are not using an X server, or the GUI is too slow over your network, unset DISPLAY for text mode.
4. Run the install.sh script. This launches the installer. After installation is completed, a detailed installation log file is created: <INSTALL_DIR>/sim/dbschema/logs/sim-install-db.<timestamp>.log.
5. When the installer finishes it prints the values of the database SID and database schema user. Note these values as they are needed later when you run the SIM 12 application installer.
6. The SIM database schema installer produces a sim_dba.sql script which must be reviewed by a DBA and then run on the database server in order to complete the installation.
7. If you wish to run data seeding from your merchandising system (e.g. RMS), you should do so at this time. (See instructions below)

Resolving Errors Encountered During Database Schema Installation

If the database schema installer encounters any errors, it halts execution immediately and prints to the screen which SQL script it was running when the error occurred. It also writes the path to this script to the .dberrors file. When this happens, you must run that particular script using sqlplus. After you are able to complete execution of the script, delete the .dberrors file and run the installer again. You can run the installer in silent mode so that you don't have to retype the settings for your environment. See Appendix D of this document for instructions on silent mode.

See Appendix F of this document for a list of common installation errors.

Subsequent executions of the installer will skip the SQL scripts which have already been executed in previous installer runs. This is possible because the installer maintains a .dbhistory file with a listing of the SQL scripts that have been run. If you have dropped the SIM schema and want to start with a clean install, you can delete the .dbhistory file so that the installer runs through all of the scripts again. It is recommended that you allow the installer to skip the files that it has already run.

RIB Tables in the SIM Database Schema

If you are integrating SIM with other retail applications using the RIB (Retail Integration Bus), you need to install the RIB tables in the SIM schema. The scripts for doing this are included in the RIBforSIM distribution: all_rib_tables.sql and rib_message_seq.sql. See the RIB installation documentation for instructions on how to install them.

Running Data Seeding

If your SIM server is going to integrate with RMS, you must run the DataSeeding utility at this time to load data from RMS into SIM.

Data Seeding and RMS on RAC: If you are using the SIM data seeding utility to retrieve data from an RMS schema that is in a RAC (Real Application Clusters) database you must use the Oracle JDBC thin client to access the RMS database and not the OCI driver. Choose one instance in the RAC cluster and construct a thin client URL (jdbc:oracle:thin:@host:1521:service) pointing to just that instance. Use this URL for the value of RMS.DB_URL in dataseeding.cfg.

Supported syntax:

RMS.DB_URL=jdbc:oracle:thin:@<host>:<port>:<sid>

Not supported: RMS.DB_URL=jdbc:oracle:oci:@<servicename>

Data seeding must be run from the server where the database is located. If you ran the database schema installer from a different server, then you need to copy the entire data_seeding directory over to the database server. This data_seeding directory is referred to as the DATA_SEEDING_DIR for the remainder of this chapter.

1. Set the following environment variables:
 - \$RMS_USER/\$RMS_PWD@\$RMS_DB – These should be the values of the RMS that you are pulling data from.
 - Set the ORACLE_HOME to point to an installation that contains sqlldr. It is recommended that this be the ORACLE_HOME of the SIM database.
 - Set the JAVA_HOME environment variable. JAVA_HOME should point to a Java 5 (Java 1.5) JDK.

- Set the PATH to: \$ORACLE_HOME/bin:\$JAVA_HOME/bin:\$PATH.
 - Set the ORACLE_SID to the name of your database.
2. Change to the <DATA_SEEDING_DIR> directory.
 3. Modify your <DATA_SEEDING_DIR>/files/prod/config/dataseeding.cfg.
 - Set environment variables, userids, and passwords for SIM and RMS databases.
 - Set MAX_THREADS (Recommend: 1.5 threads per cpu for MAX_THREADS).
 - Set SIM_COMMIT_BLOCK (Recommended: Commit Block 100000 for SIM_COMMIT_BLOCK).
 4. Change to <DATA_SEEDING_DIR>/bin.
 5. Run DataSeedCreateRMSIndexes.sh to create indexes from RMS. These are temporary indexes for the purpose of data seeding.
 6. Do not run statistics on indexes above. Please review DataSeedCreateRMSIndexes.sql.
 7. Run the command: nohup ./DataSeedAll.sh &

Note: The nohup command redirects the output of the DataSeedAll.sh script to a nohup.out file.

8. Run DataSeedDropRMSIndexes.sh to drop the temporary indexes from RMS.
9. Check the SIM schema for any disabled constraints.

Example: SELECT * from DBA_CONSTRAINTS where OWNER='SIMUSER' and STATUS='DISABLED.'

The above query should return no rows. If there are any disabled constraints, you should enable them at this time.

Example: ALTER TABLE <TABLE> enable constraint <CONSTRAINT>.

Post-Data-Seeding-Clean-up: After data seeding is finished, and you are convinced that your data was correctly seeded, you can run DataSeedClear.sh to remove dat, dsc, log and bad files.

Application Installation UNIX/Linux (Sun Solaris/AIX/OEL)

Before proceeding you must install Oracle Application Server 10g 10.1.3 plus the patches listed in Chapter 1 of this document. The SIM application is deployed to an OC4J instance within the OracleAS 10g installation. It is assumed Oracle RDBMS has already been configured and loaded with the appropriate SIM schema for your installation.

Create a New OC4J Instance for SIM

You can skip this section if you are redeploying to an existing OC4J instance.

The SIM application must be deployed to its own dedicated OC4J instance. For instructions on how to create a new OC4J instance, see *Adding and Deleting OC4J Instances* in the *Reconfiguring Application Server Instances* chapter of the *Oracle Application Server Administrator's Guide*.

1. Log into the server which is running your OracleAS 10g installation. Set your ORACLE_HOME environment variable to point to this installation.
2. Choose a name for the new OC4J instance.

Example: sim-oc4j-instance

Create this OC4J instance as documented in the Oracle Application Server Administrator's Guide.

Example:
 \$ORACLE_HOME/bin/createinstance
 -instanceName sim-oc4j-instance

When prompted for the oc4jadmin password, provide the same administrative password you gave for the Oracle Application Server installation. All OC4J instances running Oracle Retail applications must have the same oc4jadmin password.

3. **(Linux only)** Increase memory for the new OC4J instance by modifying \$ORACLE_HOME/opmn/conf/opmn.xml. Locate the OC4J instance you just created, and add the -XX:PermSize=256m -XX:MaxPermSize=512m -Xms256m -Xmx256m options to the start-parameters section.

Example:

```
<process-type id="orco-inst" module-id="OC4J"
status="enabled">
  <module-data>
    <category id="start-parameters">
      <data id="java-options" value="-server
-XX:PermSize=256m -XX:MaxPermSize=512m -Xms256m -
Xmx256m -
Djava.security.policy=$ORACLE_HOME/j2ee/orco-
inst/config/java2.policy -Djava.awt.headless=true
-Dhttp.webdir.enabled=false"/>
    </category>
```

4. Force OPMN to reload the configuration file.

```
Example: $ORACLE_HOME/opmn/bin/opmnctl reload
```

5. Start the OC4J instance. You can do this through the Enterprise Manager web interface, or on the command line using the opmnctl utility:

```
Example: $ORACLE_HOME/opmn/bin/opmnctl startproc  
process-type=sim-oc4j-instance
```

6. Verify that the OC4J instance was fully started. If you are using the Enterprise Manager web interface, the instance should have a green arrow indicating that it is running. On the command line, verify that the instance has a status of "Alive".

```
Example: $ORACLE_HOME/opmn/bin/opmnctl status
```

If you are unable to start the OC4J instance after several attempts, try increasing the startup timeouts in `ORACLE_HOME/opmn/conf/opmn.xml`. If that does not help, consult the Oracle Application Server documentation for further assistance.

Configure Apache for JNLP Files

If this is the first WebStart application that is being installed in the HTTP server, you need to configure the `mime.types` file with the `jnlp` file type. If you are using the Apache distribution that is included with OracleAS, this file can be found under `ORACLE_HOME/Apache/Apache/conf`. Add the following line to the file:

```
application/x-java-jnlp-file          jnlp
```

Restart the Apache server for this change to take effect. If you do not add this line then `jnlp` files will be served as plain text and you will not be able to launch the application.

```
Example: $ORACLE_HOME/opmn/bin/opmnctl  
restartproc process-type=HTTP_Server
```

Set the LANG Environment Variable

The `LANG` environment variable must be set in the profile of the UNIX user who owns the application server `ORACLE_HOME` files. If you change the value of `LANG` or set the value for the first time, you must restart the Application Server in order for the change to take effect.

```
Example:  
LANG=en_US  
export LANG
```

For instructions on how to restart the Application Server, see the *opmnctl Commands* chapter of the *Oracle® Process Manager and Notification Server Administrator's Guide*.

```
Example:  
$ORACLE_HOME/opmn/bin/opmnctl stopall  
$ORACLE_HOME/opmn/bin/opmnctl startall
```


Expand the SIM Application Distribution

1. Log into the UNIX server as the user who owns the OracleAS 10g installation. Create a new staging directory for the SIM application distribution (sim12application.zip). There should be a minimum of 300 MB disk space available for the application installation files.

Example: \$ORACLE_HOME/j2ee/sim-oc4j-instance/sim-staging

This location is referred to as `INSTALL_DIR` for the remainder of this chapter.

2. Copy sim12application.zip to `<INSTALL_DIR>` and extract its contents.

Provide Third-Party Jar File

The SIM application requires the hibernate2.jar file to be installed. This file should be downloaded from <http://www.hibernate.org> and placed in the `<INSTALL_DIR>/sim/application/hibernate` folder before the installer is launched. For SIM 12, Hibernate 2.1.8 should be used. You need to download the Hibernate distribution and extract the hibernate2.jar file from it.

The SIM application installer verifies that hibernate2.jar has been provided and that it is the correct version. If hibernate2.jar is missing or incorrect, the installer does not proceed.

The installer applies hibernate2.jar to the SIM application by placing it under the `ORACLE_HOME/j2ee/<oc4j-instance-name>/sim-home/library/ent` directory.

Run the SIM Application Installer

Once you have an OC4J instance that is started, you can run the SIM application installer. This installer will configure and deploy the SIM application and Java WebStart client files.

Note: Appendix C contains details on every screen and field in the application installer.

1. Expand the sim12application.zip distribution into `<INSTALL_DIR>`.
2. Set the `ORACLE_HOME` and `JAVA_HOME` environment variables. `ORACLE_HOME` should point to your OracleAS installation. `JAVA_HOME` should point to `$ORACLE_HOME/jdk`.
3. If you are using an X server such as Xceed, set the `DISPLAY` environment variable so that you can run the installer in GUI mode (recommended). If you are not using an X server, or the GUI is too slow over your network, unset `DISPLAY` for text mode.
4. Verify that the required third-party jar file is in place:
`<INSTALL_DIR>/sim/application/hibernate/hibernate2.jar`
5. Run the install.sh script. This launches the installer. After installation is completed, a detailed installation log file is created: `<INSTALL_DIR>/sim/application/logs/sim-install-app.<timestamp>.log`.
6. Sign the sim-config.jar file. (See instructions below.)
7. Copy the sim-home directory if you wish to run batch scripts from a location outside of the `ORACLE_HOME`. This step is optional. (See instructions below)

Sign the SIM Client Configuration Jar File

There is some client-side configuration that the installer performs which results in a modified `sim-config.jar` file after installation. Because of this, the jar file cannot be pre-signed by Oracle. The user must sign this jar file after the installer has completed.

To create an example key called “foo”, the following command can be run:

```
$JAVA_HOME/bin/keytool -genkey -alias foo
```

This command prompts you for a keystore password along with organizational info.

Once complete, the keystore alias resides in the default location in the user’s home directory (ie `~/.keystore`). If you get an error message saying that the keystore has been tampered with, try renaming or deleting the `~/.keystore` file and running the `keytool` command again.

The `sim-config.jar` is located within the deployed client application:

```
$ORACLE_HOME/j2ee/<oc4j-instance-name>/applications/sim-client/sim-client/lib/sim-config.jar
```

To sign the `sim-config.jar` file using your alias and keystore, run the `jarsigner` utility.

```
Example: $JAVA_HOME/bin/jarsigner sim-config.jar foo
```

Consult the “`jarsigner`” documentation from Sun for further information on the JAR signing process.

SIM Batch Scripts

The SIM application installer places the SIM batch programs with the rest of the SIM application files under `$ORACLE_HOME/j2ee/<oc4j-instance-name>/sim-home`.

The batch programs can be run from a different location if you cannot run them from under the application server `ORACLE_HOME`. To install the batch files in a different location just copy the entire `$ORACLE_HOME/j2ee/<oc4j-instance-name>/sim-home` directory to the appropriate destination.

The `sim-home` is assumed to be located on the same server as the application server. If you copy the `sim-home` to a location on a different server, then you need to configure the file path to the `sim-batch.log` file, which is defined in `sim-home/batch-config/log4j.xml`.

Resolving Errors Encountered During Application Installation

If the application installer encounters any errors, it halts execution immediately. You can run the installer in silent mode so that you don’t have to retype the settings for your environment. See Appendix D of this document for instructions on silent mode.

See Appendix F of this document for a list of common installation errors.

Since the application installation is a full reinstall every time, any previous partial installs are overwritten by the successful installation.

Manual Deployment Option

Skip this section if you chose the default option of allowing the installer to complete installation to the application server.

The installer includes the option to configure the application locally and skip deployment to the application server. If this option is chosen, the installer makes the configured application files available under `<INSTALL_DIR>/sim/application/sim12/configured-output/`.

If you chose this installer option, you can complete the installation by following these steps:

1. Inspect and then overlay files from `<INSTALL_DIR>/sim/application/sim12/configured-output` into your application server installation.
2. Deploy the SIM EAR file using the Enterprise Manager web interface. The configured EAR file is located at `<INSTALL_DIR>/sim/application/sim12/configured-output/sim.ear`. When deploying the EAR file, you should provide the same application name you gave to the installer. This value was stored in the `<INSTALL_DIR>/sim/application/ant.install.properties` file by the installer for later reference.
3. Deploy the client WAR file to the application server using the Enterprise Manager web interface. The configured WAR file is located at `<INSTALL_DIR>/sim/application/sim12/configured-output/sim-client.war`.
4. Start the Wavelink server. The start file for Wavelink is located at: `$ORACLE_HOME/j2ee/<oc4j-instance-name>/sim-home/wavelink/bin/wavelink-startup.sh`

Backups Created by Installer

The SIM application installer backs up the `sim-home` directory and `data_sources.xml` file if it finds a previous installation of SIM. The backups are made by suffixing the file or directory with a timestamp. This is done to prevent the removal of any custom changes you might have. These backup directories can be safely removed without affecting the current installation.

Example: `sim-home-backup-200708171550`

Example: `data-sources.xml.200708171550`

Test the SIM Application

After the application installer completes and you have signed the `sim-config.jar` you should have a working SIM application installation. To launch the application client, open a web browser and go to the client URL. You can find the URL in the *next-steps* section of the log file that was produced by the installer.

Example: `http://myhost:7777/sim-client/launch?template=sim_jnlp_template.vm`

If after you log in you receive an error message that the timezone is not properly configured for your store, please refer to *Configuring SIM Across Time Zones* in the SIM Operations Guide.

Web Help Files

The application installer automatically copies the web help files to the proper location. They are accessible from the help links within the application.

Starting and Stopping SIM

The startup and shutdown scripts for SIM can be found with the SIM batch scripts in:

ORACLE_HOME/j2ee/<oc4j-instance-name>/sim-home/bin/startup.sh

ORACLE_HOME/j2ee/<oc4j-instance-name>/sim-home/bin/shutdown.sh

SIM can also be restarted by using the Enterprise Manager to restart the OC4J instance that contains SIM. However, if you use the Enterprise Manager to restart SIM, the Wavelink server needs to be restarted manually.

Starting and Stopping the Wavelink Server

In order to use handheld wireless devices with SIM, the Wavelink server must be running. The SIM application installer installs, configures, and starts the Wavelink server for you, so once the SIM application install is complete, the Wavelink server is ready to be used.

Note: If you use the Enterprise Manager to restart SIM, then you need to restart the Wavelink server manually.

If you use SIM's startup and shutdown scripts to restart SIM on the command line, then the Wavelink server will also be restarted along with SIM. However, if you use the Enterprise Manager to restart SIM, the Wavelink server is not affected. Thus it needs to be restarted manually once SIM is running again.

The Wavelink server scripts can be found here:

ORACLE_HOME/ j2ee/<oc4j-instance-name>/sim-home/wavelink/bin/wavelink-startup.sh

ORACLE_HOME/ j2ee/<oc4j-instance-name>/sim-home/wavelink/bin/wavelink-shutdown.sh

Note: Contact Oracle Retail for requirements, recommendations, and evaluations of currently deployed equipment for operating SIM on wireless handheld devices and printers. The SIM -- Wireless Foundation™ has a component that runs on the handheld device and a corresponding component that runs on the application server. Wireless component installation and configuration is not covered in this installation guide.

LDAP Configuration

Getting SIM to Work With OpenLDAP

Setup of LDAP

There are a number of commercial Lightweight Directory Access Protocol (LDAP) servers available on the market – a commonly used one is OpenLDAP (available at www.openldap.org).

Note: Development of LDAP functionality in the SIM product was carried out by using OpenLDAP 2.1.12 server with a Berkeley DB 4.1.25 back-end on UNIX

Once an LDAP server has been selected and installed, the SIM data schema (SIM.schema) must be loaded on top of the default LDAP core schema (core.schema) supplied by the server. The following sample configuration files and scripts are included in this release at SIM_INSTALL_DIR/server<Platform>/retek/sim/files/prod/database/ldap for use with OpenLDAP and Berkeley DB installations:

Note: The following scripts and configuration files are provided as examples only. Variations may be necessary based on the LDAP server that is chosen and installed.

- slapd.conf
An example OpenLDAP server configuration file.
- start_ldap.sh (start_ldap.bat)
An example Start up script that starts just the LDAP stand-alone server. <LDAPServerName> and <LDAPServerPort> will have to be set to fit your environment.
- loadnStart.sh (loadnStart.bat)

An example script that removes any LDAP databases, recreates the data directory, starts the LDAP stand-alone server, and loads a sample LDIF file. The sample LDIF files are discussed in the next section. This script will need to be modified to conform to your environment's directory structure and LDAP server.

Note: Running this script will completely delete any data in the target LDAP repository and insert the test data contained in the ldif file the script references.

- stop_ldap.sh
Stops the LDAP standalone server by killing the process.

Note: A stop script for Windows was not created – simply use `ctl-c` to stop the server process in the CMD window in which it is running

- `sim.schema`
Contains the SIM LDAP schema that is loaded over the `core.schema` provided with the LDAP server.
- Several `.ldif` files that contain sample data are also included. They are explained further in the next section.

To Configure SIM in an OpenLDAP Environment LDAP Server:

1. Customize the `stop_ldap.sh` script:
 - Change the argument of the kill command to the location of the `slapd.pid` file as specified by the 'pidfile' key in the LDAP configuration file (`slapd.conf`).
2. Customize the `start_ldap.sh` and the `loadnStart.ldap` scripts:
 - Change the `LD_LIBRARY_PATH` key to the location of the BerkeleyDB libraries (this depends on the distribution of OpenLDAP used, some are static-linked against the BerkeleyDB libraries and do not need this).
 - In `loadnStart.sh`, change the lines that delete and recreate the LDAP database to reference your specific setup.
 - Change line that launches the LDAP server. The format of the line is given in the script.
 - In `loadnStart.sh`, change the line that loads the sample data into the LDAP server. The format of the line is given in the script.
3. Customize the `slapd.conf` file:
 - Ensure that the `SM.schema` file is referenced correctly near the top of the `slpad.conf` file.
4. Execute `stop_ldap.sh` (if the LDAP server is already running)
5. Execute `start_ldap.sh` or `loadnStart.sh` to start the stand-alone LDAP server.
If `loadnStart.sh` is run, a scrolling list of data inserts into the LDAP repository should be displayed. If you get an error starting the server - check to make sure the server was not started anyway.
For connection errors, double check that the rootdn name and password specified in `slapd.conf` and `start_ldap.sh/loadnStart.sh` match.

SIM Data Schema Loads

An LDAP Server handles user authentication in SIM. In order to have SIM setup correctly and have users login to the application, SIM needs to communicate with a LDAP server. Once the LDAP server is configured and installed, the SIM data schema must be loaded on top of the default LDAP core schema (core.schema) supplied by the server. This is done by the example script loadnStart.sh above.

Loading the data consists of creating 3 primary objects that SIM uses:

1. Users
2. Roles
3. Stores

Several sample data entry files are available in the `SIM_INSTALL_DIR/server<Platform>/retek/sim/files/prod/database/ldap` directory and illustrate the formatting of the required data. The file `sampleData.ldif` contains a sample entry for the SIM schema. The other sample data files, `testData.ldif` and `superLDIF.ldif` contain varying amounts of sample data.

Note: You can have more than one `rsimStoreID` by simply repeating the `userStore` line, but should only have 1 `homeStore`.

Note: Any user store entry for the user object must have a corresponding Store data populated in the SIM Oracle database to allow a successful login (table `PA_STR_RTL`).

Note: SIM does not currently use/validate against the `employmentStatus` field, but may at some future release. Valid types are below.

0 = active
1 = terminated
2 = onleave
3 = oncall

User roles contain various privileges that users assigned this `rsimRoleName` can access. If a role is set to `TRUE` in `isStoreSuperUser`, that role can perform all privileges in any store they are assigned to as long as that task is available in that store. If a user has `TRUE` in `isSuperUser`, they can perform any task in any store as long as that task is available in that store.

The privileges available in SIM are listed below.

- Create/View Stock Count (my store) – 1
- Create/View Stock Count (all stores) – 2
- Authorize Count – 4
- Item Lookup – 8
- Transfer Receive – 16
- Transfer Create/Save – 32
- Supplier Lookup – 64
- DSD – 128
- Return Stock – 256
- Warehouse Delivery – 512
- Container Lookup – 1024
- Inventory Adjustment – 2048
- Pricing – 4096
- View/Perform Stock Count – 8192
- Store Admin/Configuration – 16384
- Transfer Requests – 32768
- Item Requests – 65536
- Sequencing – 131072

LDAP store data must match the location data maintained in the SIM database. Stores also have privileges assigned to them. It needs to be noted that store privileges override user privileges. For example, if privilege 512 is not available to a store, users logged into that store will not be able to perform function 512 even if their role specifically allows it.

Once an LDAP user is correctly set up for a store that is present in your SIM database you will be able to log in to the SIM client.

Appendix: SIM Configuration Files

This section documents which files are configured by the installers and where you can find them to do manual configuration later.

OC4J Instance Name in `startup.sh` and `shutdown.sh`

Example: `opmnctl startproc process-type=<oc4j-instance-name>`

Example: `opmnctl stopproc process-type=<oc4j-instance-name>`

Client Codebase and Provider URL in `JnlpLaunch.properties`

- The `token.sim_provider_url` property contains the JNDI provider URL. The URL should have the following format:

```
token.sim_provider_url=opmn:ormi://<host>:<opmn-req-
port>:<oc4j-instance-name>/<sim-app-name>
```

- The `token.sim_download_url` property contains the client codebase. The client codebase should have the following format:

```
token.sim_download_url=http://<host>:<http-
port>/<client-context-root>
```

Client Codebase in `sim_config.jnlp`

The client codebase specified in the `sim_config.jnlp` file should have the following format:

```
codebase="http://<host>:<http-port>/<client-context-
root>"
```

Client Codebase in `client_master.cfg`

The client codebase is used to form the WebHelp URL in the `client_master.cfg` file.

Example: `HELP_BASE_DIR= http://<host>:<http-
port>/<client-context-root>/WebHelp`

JNDI Details in `jndi.cfg`

The JNDI properties should have the following format:

```
NAMING_SERVER_URL=opmn:ormi://<host>:<opmn-
req-port>:<oc4j-instance-name>/<sim-app-name>
```

```
SECURITY_PRINCIPAL=oc4jadmin
```

```
SECURITY_CREDENTIALS=<oc4jadmin-password>
```

JNDI Provider URLs for Other Oracle Retail Applications in jndi_providers.xml

If SIM is integrated with other Oracle Retail applications such as RPM, RMS, or RIB, then the JNDI providers for those applications must be provided in the `jndi_providers.xml` file. The format of each URL should be:

Example: `url="opmn:ormi://<host>:<opmn-req-port>:<rpm-oc4j-instance-name>/<rpm-app-name>"`

Example: `url="opmn:ormi://<host>:<opmn-req-port>:<rms-oc4j-instance-name>/<rms-app-name>"`

Example: `url="opmn:ormi://<host>:<opmn-req-port>:<ribforsim-oc4j-instance-name>/<ribforsim-app-name>"`

Context Roots for Web Modules in application.xml

The context roots for SIM's WAR file and Web Services WAR file are located in the `application.xml` inside SIM's EAR file.

```
<application>
  <module>
    <web>
      <web-uri>sim.war</web-uri>
      <context-root>/simweb</context-root>
    </web>
  </module>
  <module>
    <web>
      <web-uri>sim-ws.war</web-uri>
      <context-root>/sim-ws</context-root>
    </web>
  </module>
</application>
```

Database Information in data-sources.xml

The `<connection-pool>` and `<managed-data-source>` elements define the data sources:

```
<connection-pool name="SIM Connection Pool">
  <connection-factory factory-class="oracle.jdbc.pool.OracleDataSource"
    user="sim-schema-user" password="sim-schema-password"
    url="jdbc:oracle:thin:@<host>:<port>:<sid>"/>
</connection-pool>
<managed-data-source login-timeout="30"
  connection-pool-name="SIM Connection Pool"
  jndi-name="jdbc/SimDataSource" name="jdbc/SimDataSource"/>
```

Database Information in batch_db.cfg

SIM's batch scripts use the properties in the `batch_db.cfg` file to connect to the database. The database properties should have the following format:

`URL=jdbc:oracle:thin:@<host>:<port>:<sid>`
`USER_NAME=<sim-schema-user>`
`PASSWORD=<sim-schema-password>`

RIB and RSL configuration in integration.cfg

RIB message publishing and RSL calls can be enabled or disabled by setting the `ribMessagePublishEnabled` and `rslCallsEnabled` properties respectively.

Examples:

```
ribMessagePublishEnabled=true
```

```
rslCallsEnabled=true
```

LDAP Details in ldap.cfg

The LDAP settings are found in the `ldap.cfg` file. They should have the following format:

```
PRIMARY_LDAP_URL=ldap://<ldap-host>:<ldap-port>
```

```
BASE_DN=<ldap-search-base-dn>
```

```
APPLICATION_LOGIN=<ldap-search-user-dn>
```

```
APPLICATION_PASSWORD=<ldap-search-user-  
password>
```

SIM Log File in sim-home/files/prod/config/log4j.xml

The location of SIM's log file is defined in the `log4j.xml`. Example:

```
<param name="File"  
value="<ORACLE_HOME>/j2ee/<oc4j-instance-name>/sim-home/log/sim.log"/>
```

SIM Batch Script Log File in sim-home/batch-config/log4j.xml

The location of the log file used by SIM batch scripts is defined in the `log4j.xml` found under the `sim-home/batch-config` directory. Example:

```
<param name="File"  
value="<ORACLE_HOME>/j2ee/<oc4j-instance-name>/sim-home/log/sim-  
batch.log"/>
```

Reporting Tool Details in reporting.cfg

SIM uses the settings in `reporting.cfg` to access the reporting tool server.

Examples:

```
REPORTING_TOOL_ADDRESS=http://<report-  
host>:<report-port>/<bipublisher-instance>/servlet/report
```

```
REPORTING_TOOL_REQUEST_URL=http://<report-  
host>:<report-http-  
port>/bipublisher_10.1.3.2/servlet/scheduler
```

```
REPORTING_TOOL_REQUEST_USERNAME=admin
```

```
REPORTING_TOOL_REQUEST_PASSWORD=<password>
```

Wireless Server Port in wavelink-startup.sh and wireless_services.cfg

The wireless server port is located in both the wavelink-startup.sh and the wireless_services.cfg.

Example: wireless_port=40002

Example: PORT=40002

DexNex Directories in sim_batch.cfg

The Dexnex file parser imports direct delivery (DSD) information from an EDI flat file produced by a supplier. It uses an input directory to place files for processing and an error directory to place files that fail.

Example:

DEXNEX_INPUT_DIR=<ORACLE_HOME>/j2ee/<ocj-instance-name>/sim-home/files/prod/dexnex/dexnex-input

DEXNEX_ERRORS_DIR=<ORACLE_HOME>/j2ee/<ocj-instance-name>/sim-home/files/prod/dexnex/dexnex-error

Alternate Example:

DEXNEX_INPUT_DIR=<path-to-alternate-sim-home>/files/prod/dexnex/dexnex-input

DEXNEX_ERRORS_DIR=<path-to-alternate-sim-home>/files/prod/dexnex/dexnex-error

Appendix: SIM Database Schema Installer Screens

You need the following details about your environment for the installer to successfully install the SIM database schema. Depending on the options you select, you may not see some screens.

Screen: Data Source Details

Fields on this screen:

Field Title	SIM Schema Owner
Field Description	The pre-existing database user for this installation
Destination	sim_dba.sql, dataseeding.cfg
Example	myschema
Notes	

Field Title	Sim Schema Password
Field Description	The SIM Schema Owner's password
Destination	
Example	
Notes	

Field Title	SIM Oracle SID
Field Description	The name of the database where the SIM schema will be installed
Destination	
Example	mydb
Notes	

Field Title	Temporary tablespace name
Field Description	Temporary tablespace provided to the create_user.sql script at the time that the SIM database user was created.
Destination	
Example	TEMP
Notes	

Screen: Data Source Details (2)



Fields on this screen:

Field Title	SIM JDBC URL
Field Description	The URL that will be used by SIM to access the database
Destination	dataseeding.cfg
Example	jdbc:oracle:oci:@myschema
Notes	

Screen: Data Source Validation



Fields on this screen:

There are no input fields on this screen. It is used as a placeholder while validations are performed. Click Next to continue with the installation.

Screen: PL/SQL Batch Setup – Base Directory



Fields on this screen:

Field Title	PL/SQL batch data file location
Field Description	A directory which will be the parent directory for all other PL/SQL batch processing directories
Destination	sim_dba.sql
Example	/usr/oracle/retail/sim/batch
Notes	

Screen: PL/SQL Batch Setup



Fields on this screen:

Field Title	ReSA data input directory
Field Description	A filesystem directory and database directory object used for processing ReSA data
Destination	sim_dba.sql
Example	/usr/oracle/retail/sim/batch/resa
Notes	The installer will not create these directories or directory objects. It will produce the sim_dba.sql script, which can be used to create them.

Field Title	ReSA original data directory
Field Description	A filesystem directory and database directory object used for processing ReSA data
Destination	sim_dba.sql
Example	/usr/oracle/retail/sim/batch/resaOriginal
Notes	The installer will not create these directories or directory objects. It will produce the sim_dba.sql script, which can be used to create them.

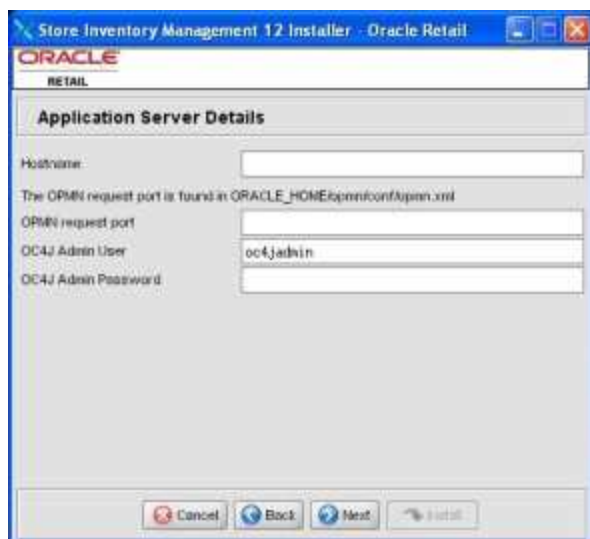
Field Title	StockCount data input directory
Field Description	A filesystem directory and database directory object used for processing StockCount data
Destination	sim_dba.sql
Example	/usr/oracle/retail/sim/batch/stockcount
Notes	The installer will not create these directories or directory objects. It will produce the sim_dba.sql script, which can be used to create them.

Field Title	StockCount upload directory
Field Description	A filesystem directory and database directory object used for processing StockCount data
Destination	sim_dba.sql
Example	/usr/oracle/retail/sim/batch/stockcountUpload
Notes	The installer will not create these directories or directory objects. It will produce the sim_dba.sql script, which can be used to create them.

Appendix: SIM Application Installer Screens

You will need the following details about your environment for the installer to successfully deploy the SIM application. Depending on the options you select, you may not see some screens.

Screen: Application Server Details



Fields on this screen:

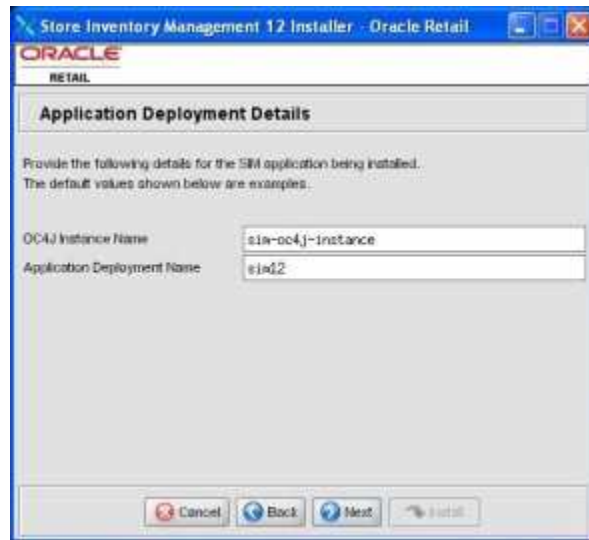
Field Title	Hostname
Field Description	The hostname of the server where the application server is installed
Destination	client_master.cfg
Example	myhost.us.oracle.com
Notes	Used by installer scripts to deploy EAR and WAR files and to create default inputs for client codebase and JNDI provider URL

Field Title	OPMN request port
Field Description	The OPMN request port found in \$ORACLE_HOME/opmn/conf/opmn.xml <port local="6100" remote="6200" request="6003"/>
Destination	
Example	6003
Notes	Used by installer scripts to deploy EAR and WAR files and to create default input for JNDI provider URL

Field Title	OC4J Admin User
Field Description	
Destination	jndi.cfg
Example	oc4jadmin
Notes	Used by installer scripts to deploy EAR and WAR files

Field Title	OC4J Admin Password
Field Description	The password of the OC4J Admin User
Destination	jndi.cfg
Example	
Notes	Used by installer scripts to deploy EAR and WAR files

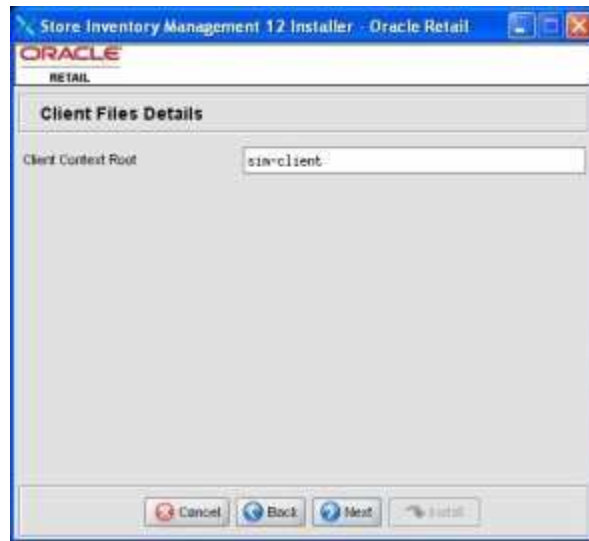
Screen: Application Deployment Details



Fields on this screen:

Field Title	OC4J Instance Name
Field Description	The name of the OC4J instance that the SIM application will be deployed to
Destination	log4j.xml, MANIFEST.MF, startup.sh, shutdown.sh,
Example	sim-oc4j-instance
Notes	
Field Title	Application Deployment Name
Field Description	The name that will be used by the application server to identify the SIM application
Destination	
Example	sim12
Notes	Used by installer scripts to deploy the application and to create default values for JNDI provider URL

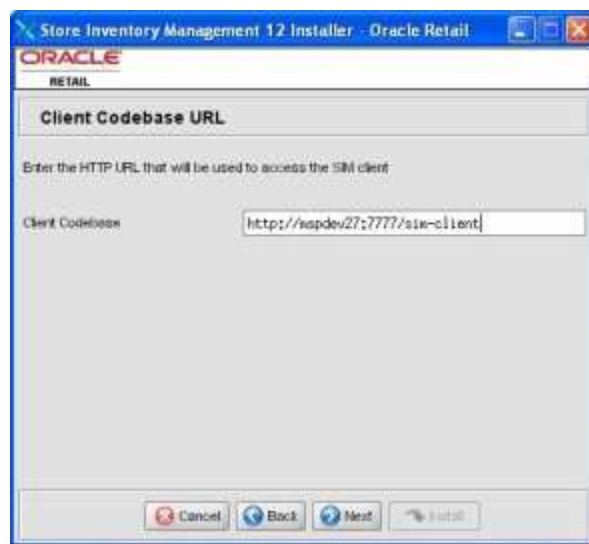
Screen: Client Files Details



Fields on this screen:

Field Title	Client Context Root
Field Description	Context root for sim-client.war
Destination	client_master.cfg
Example	sim-client
Notes	Used by installer to create default value for Client Codebase URL

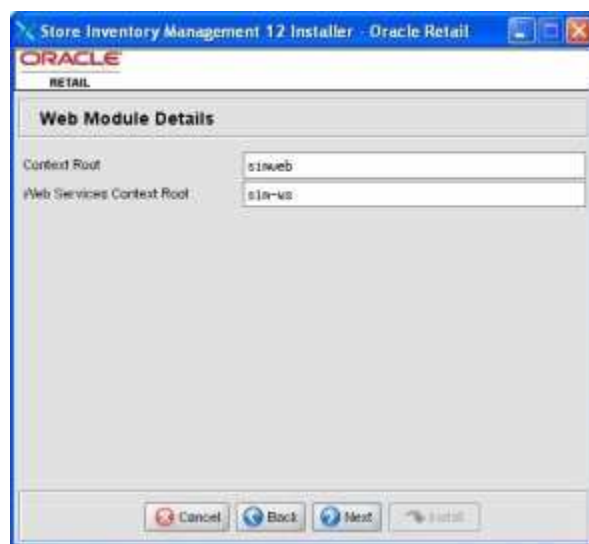
Screen: Client Codebase URL



Fields on this screen:

Field Title	Client Codebase
Field Description	The HTTP URL that points to the SIM client installation. The URL is made up of the Hostname, the HTTP port, and the Client Context Root.
Destination	JNLPLaunch.properties, sim_config.jnlp, client_master.cfg
Example	http://myhost:7777/sim-client
Notes	The Client Codebase URL must match the Client Context Root from the previous screen

Screen: Web Module Details

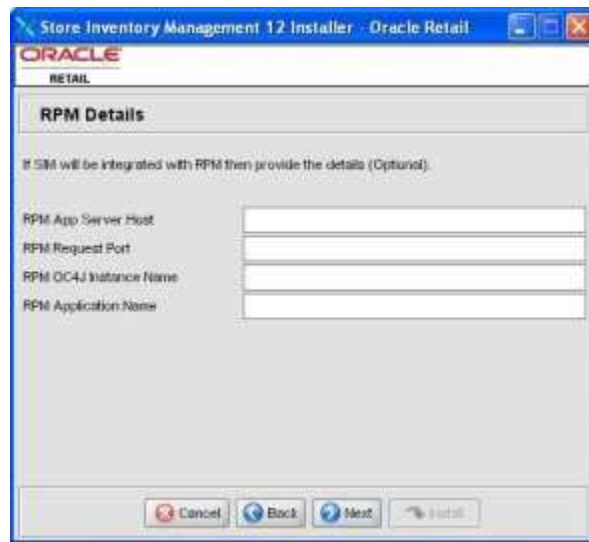


Fields on this screen:

Field Title	Context Root
Field Description	The context root for sim.war
Destination	application.xml
Example	simweb
Notes	

Field Title	Web Services Context Root
Field Description	The context root for sim-ws.war
Destination	application.xml
Example	sim-ws
Notes	

Screen: RPM Details



Fields on this screen:

Field Title	RPM App Server Host
Field Description	The name of the application server host where the RPM application is installed
Destination	jndi_providers.xml
Example	myhost.us.oracle.com
Notes	Used only if integrating SIM with RPM

Field Title	RPM Request Port
Field Description	The OPMN request port for the application server where RPM is intalled. The OPMN request port is found in \$ORACLE_HOME/opmn/conf/opmn.xml <port local="6100" remote="6200" request="6003" />
Destination	jndi_providers.xml
Example	6003
Notes	Used only if integrating SIM with RPM
Field Title	RPM OC4J Instance Name
Field Description	The name of the OC4J instance where the RPM application is installed
Destination	jndi_providers.xml
Example	rpm-o4cj-instance
Notes	Used only if integrating SIM with RPM
Field Title	RPM Application Name
Field Description	The name that will be used by the application server to identify the RPM application
Destination	jndi_providers.xml
Example	rpm12
Notes	Used only if integrating SIM with RPM

Screen: RSLforRMS Details

Fields on this screen:

Field Title	RSLforRMS App Server Host
Field Description	The name of the application server host where the RSLforRMS application is installed
Destination	jndi_providers.xml
Example	myhost.us.oracle.com
Notes	Used only if integrating SIM with RSLforRMS
Field Title	RSLforRMS Request Port
Field Description	The OPMN request port for the application server where RSLforRMS is installed. The OPMN request port is found in \$ORACLE_HOME/opmn/conf/opmn.xml <port local="6100" remote="6200" request="6003"/>
Destination	jndi_providers.xml
Example	6003
Notes	Used only if integrating SIM with RSLforRMS

Field Title	RSLforRMS OC4J Instance Name
Field Description	The name of the OC4J instance where the RSLforRMS application is installed
Destination	jndi_providers.xml
Example	rsl-rms-o4cj-instance
Notes	Used only if integrating SIM with RSLforRMS

Field Title	RSLforRMS Application Name
Field Description	The name that will be used by the application server to identify the RSLforRMS application
Destination	jndi_providers.xml
Example	rsl-rsm
Notes	Used only if integrating SIM with RSLforRMS

Screen: RIBforSIM Details

Store Inventory Management 12 Installer - Oracle Retail

ORACLE
RETAIL

RIBforSIM Details

If SIM will be integrated with RIBforSIM then provide the details (Optional).

RIBforSIM App Server Host

RIBforSIM Request Port

RIBforSIM OC4J Instance Name

RIBforSIM Application Name

Cancel Back Next Install

Fields on this screen:

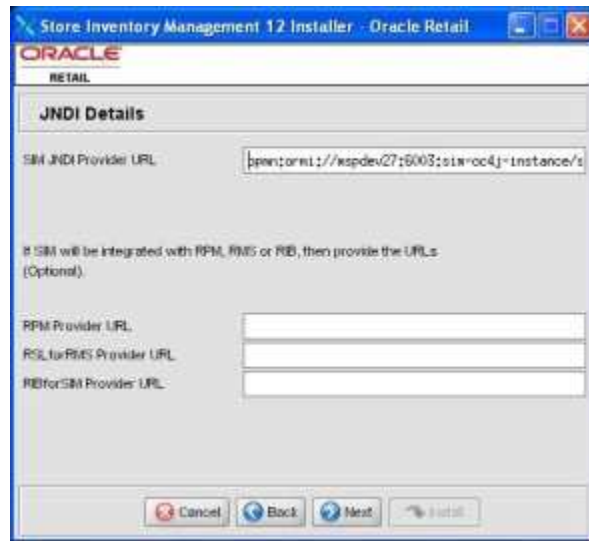
Field Title	RIBforSIM App Server Host
Field Description	The name of the application server host where the RIBforSIM application is installed
Destination	jndi_providers.xml
Example	myhost.us.oracle.com
Notes	Used only if integrating SIM with RIBforSIM

Field Title	RIBforSIM Request Port
Field Description	The OPMN request port for the application server where RIBforSIM is installed. The OPMN request port is found in \$ORACLE_HOME/opmn/conf/opmn.xml <port local="6100" remote="6200" request="6003"/>
Destination	jndi_providers.xml
Example	6003
Notes	Used only if integrating SIM with RIBforSIM

Field Title	RIBforSIM OC4J Instance Name
Field Description	The name of the OC4J instance where the RIBforSIM application is installed
Destination	jndi_providers.xml
Example	rib-sim-o4cj-instance
Notes	Used only if integrating SIM with RIBforSIM

Field Title	RIBforSIM Application Name
Field Description	The name that will be used by the application server to identify the RIBforSIM application
Destination	jndi_providers.xml
Example	rib-sim
Notes	Used only if integrating SIM with RIBforSIM

Screen: JNDI Details



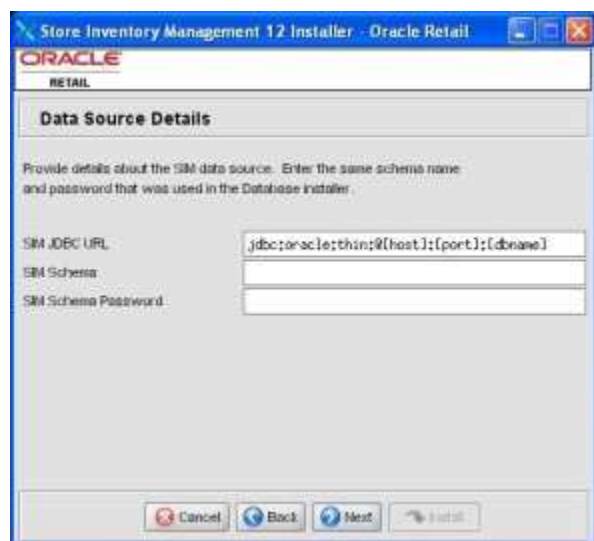
Fields on this screen:

Field Title	SIM JNDI Provider URL
Field Description	JNDI provider URL for the SIM application
Destination	jndi.cfg, JnlpLaunch.properties
Example	opmn:ormi://myhost.us.oracle.com:6003:sim-oc4j-instance/sim12
Notes	Confirm the JNDI provider URL, which is constructed based on previous inputs for Hostname, OPMN Request Port, OC4J Instance Name, and Application Deployment Name
Field Title	RPM Provider URL
Field Description	JNDI provider URL for the RPM application
Destination	jndi_providers.xml
Example	opmn:ormi://myhost.us.oracle.com:6003:rpm-oc4j-instance/rpm12
Notes	Confirm the JNDI provider URL, which is constructed based on previous inputs for Hostname, OPMN Request Port, OC4J Instance Name, and Application Deployment Name

Field Title	RSLforRMS Provider URL
Field Description	JNDI provider URL for the RSLforRMS application
Destination	jndi_providers.xml
Example	opmn:ormi://myhost.us.oracle.com:6003:rsl-rms-oc4j-instance/rsl
Notes	Confirm the JNDI provider URL, which is constructed based on previous inputs for Hostname, OPMN Request Port, OC4J Instance Name, and Application Deployment Name

Field Title	RIBforSIM Provider URL
Field Description	JNDI provider URL for the RIBforSIM application
Destination	jndi_providers.xml
Example	opmn:ormi://myhost.us.oracle.com:6003:rib-sim-oc4j-instance/rib-sim
Notes	Confirm the JNDI provider URL, which is constructed based on previous inputs for Hostname, OPMN Request Port, OC4J Instance Name, and Application Deployment Name

Screen: Data Source Details



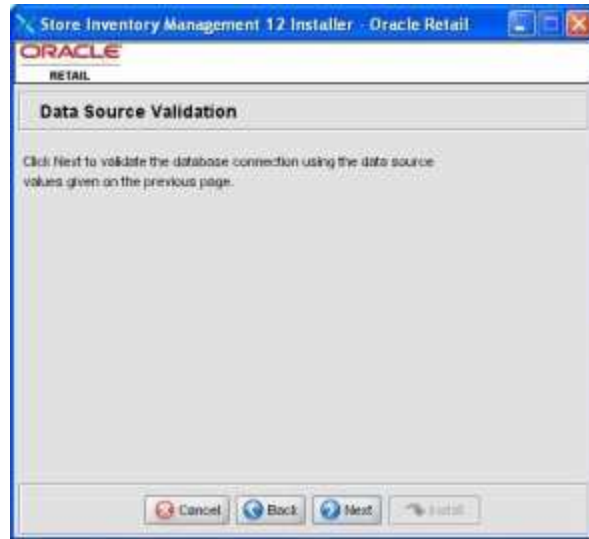
Fields on this screen:

Field Title	SIM JDBC URL
Field Description	URL used by the SIM application to access the SIM database schema.
Destination	batch_db.cfg, data-sources.xml
Example	jdbc:oracle:thin:@myhost:1525:mydatabase
Notes	

Field Title	SIM Schema
Field Description	The schema name
Destination	batch_db.cfg, data-sources.xml
Example	
Notes	The schema name should match the name you provided when you ran the database schema installer.

Field Title	SIM Schema Password
Field Description	The password for the SIM Schema
Destination	batch_db.cfg, data-sources.xml
Example	
Notes	

Screen: Data Source Validation



Fields on this screen:

This screen contains no input fields. It is used to verify the data source information that was provided on the previous screen. Just click Next to continue.

Screen: LDAP Directory Server Details



Fields on this screen:

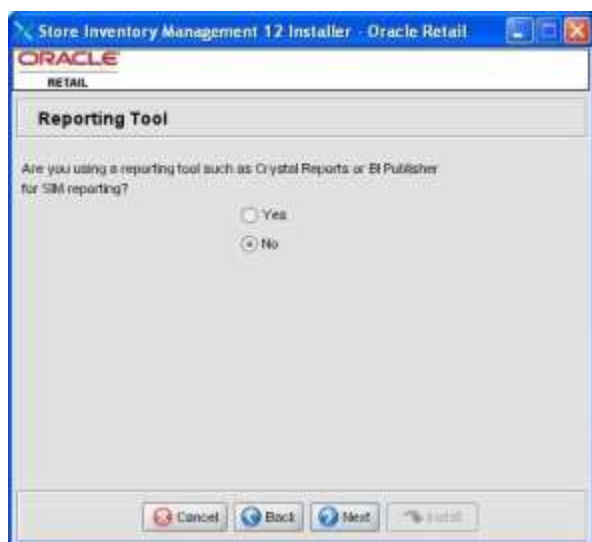
Field Title	LDAP Server URL
Field Description	URL for your LDAP directory server. See Appendix E: URL Reference for expected syntax.
Destination	ldap.cfg
Example	ldap://myhost:389
Notes	

Field Title	LDAP Search Base DN
Field Description	Distinguished name of the LDAP directory entry under which SIM should search for users.
Destination	ldap.cfg
Example	cn=Users,dc=mycompany,dc=com
Notes	

Field Title	Search User DN
Field Description	Distinguished name of the user that SIM will use to authenticate to the LDAP directory.
Destination	ldap.cfg
Example	cn=admin,dc=mycompany,dc=com
Notes	

Field Title	Search User Password
Field Description	Password for the search user DN.
Destination	ldap.cfg
Example	
Notes	

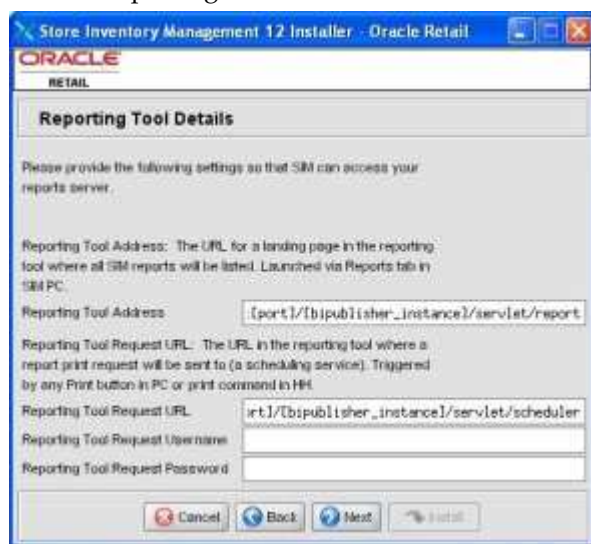
Screen: Reporting Tool



Fields on this screen:

Field Title	Are you using a reporting tool such as Crystal Reports or BI Publisher for SIM reporting?
Field Description	Indicate whether or not you will be using a reporting tool with SIM
Destination	
Example	
Notes	

Screen: Reporting Tool Details



Fields on this screen:

Field Title	Reporting Tool Address
Field Description	The URL for a landing page in the reporting tool where all SIM reports will be listed. Launched via Reports tab in SIM PC.
Destination	reporting.cfg
Example	http://<host>:<port>/<bipublisher_instance>/servlet/report
Notes	

Field Title	Reporting Tool Request URL
Field Description	The URL in the reporting tool where a report print request will be sent to (a scheduling service). Triggered by any Print button in PC or print command in HH.
Destination	reporting.cfg
Example	http://<host>:<port>/<bipublisher_instance>/servlet/scheduler
Notes	

Field Title	Reporting Tool Request Username
Field Description	
Destination	reporting.cfg
Example	
Notes	

Field Title	Reporting Tool Request Password
Field Description	
Destination	reporting.cfg
Example	
Notes	

Screen: Wireless Server Details



Fields on this screen:

Field Title	SIM Wireless Server Port
Field Description	Choose an available port that the Wavelink server will use to listen for incoming messages from wireless devices
Destination	wireless_services.cfg, wavelink-startup.sh
Example	40002
Notes	

Screen: Manual Deployment Options



Fields on this screen:

Field Title	Install files to app server?
Field Description	If you are running the installer as a user who doesn't have permissions to write to the filesystem under the ORACLE_HOME, then choose "No" to have the installer perform all the configuration within the staging directory but not install any files into the ORACLE_HOME.
Destination	
Example	
Notes	If you choose "No", you will need to perform manual steps to complete the installation.

Appendix: Installer Silent Mode

Repeating an Installation Attempt

In addition to the GUI and text interfaces of the installer, there is a silent mode that can be run. This mode is useful if you wish to run a repeat installation without retyping the settings you provided in the previous installation. It is also useful if you encounter errors in the middle of an installation and wish to continue.

The installer runs in two distinct phases. The first phase involves gathering settings from the user. At the end of the first phase, a properties file named `ant.install.properties` is created with the settings that were provided. Then the second phase begins, where this properties file is used to provide your settings for the installation.

To skip the first phase and re-use the `ant.install.properties` file from a previous run, follow these instructions:

1. Edit the `ant.install.properties` file and correct any invalid settings that may have caused the installer to fail in its previous run.
2. Run the installer again with the silent argument.

Example: `install.sh silent`

Appendix: URL Reference

Both the database schema and application installers ask for several different URLs. These include the following.

JDBC URL for a database

Used by the Java application and by the installer to connect to the database.

Syntax: jdbc:oracle:thin:@<host>:<port>:<sid>

- <host>: hostname of the database server
- <port>: database listener port
- <sid>: system identifier for the database

Example: jdbc:oracle:thin:@myhost:1521:mysid

LDAP server URL

Used by the Java application to connect to the LDAP directory.

Syntax: ldap://<host>:<port>

- <host>: hostname of the directory server
- <port>: LDAP server port

Example: ldap://myhost:389

HTTP URL for a WebStart client

Used within a web browser to access the application client.

Syntax: http://<host>:<port>/<client-context-root>/
launch?template=sim_jnlp_template.vm

- <host>: hostname of the OracleAS environment
- <port>: HTTP port for the Oracle Http Server (OHS). This can be found in the Listen parameter in the ORACLE_HOME/Apache/Apache/conf/httpd.conf file, or in the output of opmnctl status -l.
- <client-context-root>: The context root for sim-client.war

JNDI provider URL for an application

Used by the application client to access the application running in the server. Also used by other applications for server-to-server calls.

Syntax: opmn:ormi://<host>:<port>:<instance>/<app>

- <host>: hostname of the OracleAS environment
- <port>: OPMN request port of the OracleAS environment. This can be found in the <ORACLE_HOME>/opmn/conf/opmn.xml file.
- <instance>: Name of the OC4J instance running the application
- <app>: Deployment name for the application.

Example: opmn:ormi://myhost:6003:sim-oc4j-
instance/sim12

Note: The JNDI provider URL can have a different format depending on your cluster topology. Consult the Oracle Application Server documentation for further details.

Deployer URI

Used by the Oracle ANT tasks to deploy an application to an OC4J instance. The application installer does not ask the user for this value; it is constructed based on other inputs and written to the `ant.install.properties` file for input to the installation script. For repeat installations using silent mode, you may need to correct mistakes in the deployer URI.

Note: There are several different formats for the deployer URI depending on your cluster topology. Consult the *Deploying with the OC4J Ant Tasks* chapter of the *OC4J Deployment Guide* for further details.

Syntax (managed OC4J): `deployer:cluster:opmn://<host>:<port>/<instance>`

- `<host>`: hostname of the OracleAS environment
- `<port>`: OPMN request port of the OracleAS environment. This can be found in the `<ORACLE_HOME>/opmn/conf/opmn.xml` file.
- `<instance>`: Name of the OC4J instance where the application will be deployed.

Example: `deployer:cluster:opmn://myhost:6003/sim-oc4j-instance`

Syntax (standalone OC4J):

`deployer:oc4j:<host>:<port>`

- `<host>`: hostname of the OracleAS environment
- `<port>`: RMI port of the OC4J server. This can be found in the `ORACLE_HOME/j2ee/home/config/rmi.xml` file.

Example: `deployer:oc4j:myhost:23791`

Appendix: Common Installation Errors

This section provides some common errors encountered during installation.

Database Installer Hangs on Startup

Symptom:

When the database schema installer is run, the following is written to the console and the installer hangs indefinitely:

```
Running pre-install checks
Running tnsping to get listener port
```

Solution:

The installer startup script is waiting for control to return from the **tnsping** command, but **tnsping** is hanging. Type **Control+C** to cancel the installer, and investigate and solve the problem that is causing the **tnsping <sid>** command to hang. This can be caused by duplicate database listeners running.

Unreadable Buttons in the Installer

If you are unable to read the text within the installer buttons, it probably means that your **JAVA_HOME** is pointed to a pre-1.4.2 JDK. Set **JAVA_HOME** to a Java development kit of version 1.4.2 or later and run the installer again.

“Unable to get a deployment manager” Message

Symptom:

The application installer quits with the following error message:

```
[oracle:deploy] Unable to get a deployment manager.
[oracle:deploy]
[oracle:deploy] This is typically the result of an invalid deployer URI
format being supplied, the target server not being in a started state or
incorrect authentication details being supplied.
[oracle:deploy]
[oracle:deploy] More information is available by enabling logging --
please see the Oracle Containers for J2EE Configuration and
Administration Guide for details.
```

Solution:

This error can be caused by any of the following conditions:

- - OC4J instance provided is not running.
- - Incorrect OC4J instance name provided
- - Incorrect OC4J administrative username and/or password
- - Incorrect OPMN request port provided.

Make sure that the OC4J instance is running, and then check the **ant.install.properties** file for entry mistakes. Pay close attention to the **input.deployer.uri** (see Appendix E: *URL Reference*), **input.oc4j.instance**, **input.admin.user**, and **input.admin.password** properties. If you need to make a correction, you can run the installer again with this file as input by running silent mode (see Appendix D of this document).

“Could not create system preferences directory” Warning

Symptom:

The following text appears in the installer Errors tab:

```
May 22, 2006 11:16:39 AM java.util.prefs.FileSystemPreferences$3 run
WARNING: Could not create system preferences directory. System preferences are
unusable.
May 22, 2006 11:17:09 AM java.util.prefs.FileSystemPreferences
checkLockFile0ErrorCode
WARNING: Could not lock System prefs. Unix error code -264946424.
```

Solution:

This is related to Java bug 4838770. The `/etc/.java/.systemPrefs` directory may not have been created on your system. See <http://bugs.sun.com> for details.

This is an issue with your installation of Java and does not affect the Oracle Retail product installation.

Keystore Errors When Signing `sim-config.jar`

Symptom:

keytool error: java.io.IOException: Keystore was tampered with, or password was incorrect

Solution:

This message may be encountered when you use the keytool utility to create an alias for signing the `sim-config.jar` file. This usually happens when the alias for which you are generating a key already exists in the keystore file.

Delete or rename the `~/.keystore` file and run the keytool command again. This creates a fresh keystore file.

“Couldn't find X Input Context” Warnings

Symptom:

The following text appears in the console window during execution of the installer in GUI mode:

```
Couldn't find X Input Context
```

Solution:

This message is harmless and can be ignored.

ConcurrentModificationException in Installer GUI

Symptom:

In GUI mode, the errors tab shows the following error:

```
java.util.ConcurrentModificationException
        at
java.util.AbstractList$Itr.checkForComodification (AbstractList.java:448)
        at java.util.AbstractList$Itr.next (AbstractList.java:419)
... etc
```

Solution:

You can ignore this error. It is related to third-party Java Swing code for rendering of the installer GUI and does not affect the retail product installation.