Oracle® Retail Store Inventory Management

Installation Guide
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Oracle® Retail Store Inventory Management Installation Guide, Release 12.0.11

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Value-Added Reseller (VAR) Language

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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 12.0.11 documentation set:

- *Oracle Retail Store Inventory Management Release Notes*
- *Oracle Retail Store Inventory Management Operations Guide*
- *Oracle Retail Store Inventory Management Implementation Guide*

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

https://support.oracle.com

When contacting Customer Support, please provide the following:

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

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 12.0) or a later patch release (for example, 12.0.10). If you are installing the base release and additional patch and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

Oracle Retail Documentation on the Oracle Technology Network

Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site:
http://www.oracle.com/technology/documentation/oracle_retail.html

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Documentation should be available on this Web site within a month after a product release.

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."

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

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Preinstallation Tasks

Check Database Server Requirements

General Requirements for a database server running SIM include:

Supported on:	Versions Supported:
Database Server OS	OS certified with Oracle Database 10g Enterprise Edition. Options are: ▪ AIX 5.3 ▪ Solaris 10 SPARC (Actual hardware or Logical Domains) ▪ Oracle Enterprise Linux 4 Update 4 (OEL 4.4) for x86-64 ▪ Oracle Enterprise Linux 5 Update 3 (OEL 5.3) for x86-64 ▪ RedHat Enterprise Linux 4 Update 4 (RHEL 4.4) for x86-64 ▪ RedHat Enterprise Linux 5 Update 3 (RHEL 5.3) for x86-64
Database Server	Oracle Database 10g Release 2 Enterprise Edition (minimum 10.2.0.4.0 patchset required) with the following patches and components: Patches: ▪ 10.2.0.4 patchset (6810189) ▪ AIX Only oneoff 6154596 - When trying to compile Proc*C program it fails on AIX5 Components: ▪ Oracle Database 10g ▪ Oracle Partitioning ▪ Oracle Net Services ▪ Oracle Call Interface (OCI) ▪ Oracle Programmer ▪ Oracle XML Development Kit Perl compiler 5.0 or later x-Windows interface

Check Application Server Requirements

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

Supported on:	Versions Supported:
Application Server OS	OS certified with Oracle Application Server 10g 10.1.3.4. Options are: ▪ AIX 5.3 ▪ Solaris 10 SPARC (Actual hardware or Logical Domains) ▪ HP-UX 11.23 (PA-RISC) ▪ Oracle Enterprise Linux 4 Update 4 (OEL 4.4) for x86-64 ▪ Oracle Enterprise Linux 5 Update 3 (OEL 5.3) for x86-64 ▪ RedHat Enterprise Linux 4 Update 4 (RHEL 4.4) for x86-64 ▪ RedHat Enterprise Linux 5 Update 3 (RHEL 5.3) for x86-64
Application Server	Oracle Application Server 10g 10.1.3.4 with the following patches: ▪ 5632264 (NEED UPDATED TIMEZONE FILES (VERSION 4) FOR MORE DST RULE CHANGES) ▪ 4601861 (NEED TO EXPOSE NZOS_SETIOSEMANTICS)

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. See the *SIM Implementation Guide* for more information on configuring LDAP.

Check Third-Party Software Dependencies

- Oracle Business Intelligence Publisher Enterprise 10.1.3.3
- Oracle Retail Wireless Foundation Server – provided by Wavelink 4.x

Check Client PC and Web Browser Requirements

Requirement	Version
Operating system	Windows 2000 or XP
Display resolution	1024x768
Processor	minimum 1GHz or higher.
Memory	minimum of 512MBytes
Sun JRE	5.0 Update 11 or newer (1.5.0_11)
Browser	Microsoft Internet Explorer 7.0 The browser is used to launch the Java WebStart client.

Oracle Retail Dependencies

Integrates With:	Integrates Using:
RMS 12.0.11	RIB 12.0.11 or Batch
RPM 12.0.11	RSL 12.0.11 or RIB 12.0.11
RWMS 12.0.11	RIB 12.0.11
ReSA 12.0.8	Batch
ReIM 12.0.11	RIB (via RMS) 12.0.11
Oracle Retail POS 12.0.9	ReSA 12.0.8

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Database Installation Tasks

Before you apply the SIM 12.0.11 patch:

- Make a backup of all your objects and database schema.
- Check that SIM 12.0.10 is installed.
- Review the enclosed SIM 12.0.11 Patch Release Notes (sim-12011-rn.pdf).

Before copying over any files:

- Note whether customizations have been made to the module. If so, then the customizations must be reapplied over the new version of the module (or the fix may need to be applied to the custom version of the code).
- Copy the original files to a different directory before copying over them in case they need to be referred to at a later date.

> **Note:** These instructions refer to SIM12DEV as the Oracle owning schema.

Copy from CD Directory

1. Copy the `sim-db-patch.zip` file from the CD /dbserverunix directory to a newly created staging directory on your UNIX server.
2. Unzip the file by entering:
   `unzip sim-db-patch.zip`

Alter SIM Tables

1. Change directories to STAGING_AREA/sim/dbschema/patch/dbcs.
2. Log into sqlplus as SIM12DEV and run the following command:
   `SQL> @patch12011dbcs.sql`
3. Check the log file any errors.

Alter SIM Data

1. Change directories to STAGING_AREA/sim/dbschema/patch/data.
2. Export the NLS_LANG variable with an appropriate language and locale, and the UTF8 encoding. This ensures the translations data is properly inserted in the next step.

   For example:

   `export NLS_LANG=AMERICAN_AMERICA.UTF8;`
3. Log into sqlplus as SIM12DEV and run the following commands:

```
SQL> @0006_barcode_format.sql
SQL> @0007_as_itm.sql
SQL> @0008_stock_item_v.sql
SQL> @0009_stock_count_report_v.sql
SQL> @0010_rk_price_change.sql
SQL> @s8412146_return_report_v.sql
SQL> @s8515815_item_detail_nonranged_report_v.sql
SQL> @s8588776_warehouse_delivery_shipment_v.sql
SQL> @s8837154_rk_third_party_import.sql
```

Update Database Objects for SIM

1. Change directories to STAGING_AREA/sim/dbschema/patch/db_objects.
2. Log into sqlplus as SIM12DEV and run the following command:

   ```
   SQL> @patch12011sim.sq1
   ```

3. Check the log file for any errors.
4. Change directories to STAGING_AREA/sim/dbschema/patch/utility/.
5. Log into sqlplus as SIM12DEV and run the following command to validate any invalid objects:

   ```
   SQL> @unit_amount_rms_upload_fileb.pls
   SQL> @stockCountss.pls
   SQL> @stockCountsb.pls
   SQL> @get_product_group_items.pls
   SQL> @purge_datab.pls
   SQL> @activate_price_changeb.pls
   ```

6. This script may need to be run more than once.

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Application Installation

Before proceeding you must install Oracle Application Server 10g 10.1.3.4 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 Database has already been configured and loaded with the appropriate SIM schema for your installation.

Upgrade Oracle Application Server 10g

The SIM 12.0.11 release requires an upgrade of the application server from 10.1.3.0 to 10.1.3.4. Before running the SIM 12.0.11 application installer you need to patch your Oracle Application Server up to version 10.1.3.4 plus the patches listed in Chapter 1 of this document.

Create a New OC4J Instance and Group for SIM

You can skip this section if you are redeploying to an existing OC4J group in Oracle Application Server 10.1.3.4.

The SIM application must be deployed to its own dedicated OC4J group. For instructions on how to create a new OC4J group and 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 and group.

   Example: sim-oc4j-instance

   Example: sim_group

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

   Example:
   $ORACLE_HOME/bin/createinstance
   –instanceName sim-oc4j-instance –groupName sim_group

   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 group. 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 @cluster startproc ias-component=sim_group

6. Verify that the OC4J group 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 are served as plain text and you are not 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 configures and deploys 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 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. 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 the Sign the SIM Client Configuration Jar File section for instructions.

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 the SIM Batch Scripts section for additional information.

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 information.

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 do not 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 byadding a timestamp suffix to the file or directory. 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*.

WebHelp Files

The application installer automatically copies the WebHelp 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 is also 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:** The wireless functionality in SIM is dependent on Wavelink and includes a client and server component. Wavelink software ensures that the wireless user interface of SIM can work with various handheld devices.
>
> For the handheld to interact correctly with SIM, it is required to install the appropriate Wavelink studio client. The Wavelink studio client and its installation instructions can be found at http://www.wavelink.com/download/downloads.aspx.
>
> The Oracle Retail Wireless Foundation Server is bundled with the SIM server. It has a single session free license. For multiple sessions additional licenses need to be obtained.
>
> Please contact your Oracle sales representative or client partner for Wavelink Studio Client and Oracle Retail Wireless Foundation Server license information.

Note: For configurations of physical handheld devices or wireless network setup, check your hardware manufacturer's manual or Wavelink's studio client information. This information is not covered in the *SIM Installation Guide*.

A

Appendix: SIM Configuration Files

This section documents which files are configured by the installers and where you can find them in order to perform manual configuration at a later date.

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
```

B

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

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

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

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.
Example	TEMP

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

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

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 does not create these directories or directory objects. It produces 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 does not create these directories or directory objects. It produces 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 does not create these directories or directory objects. It produces the sim_dba.sql script, which can be used to create them.

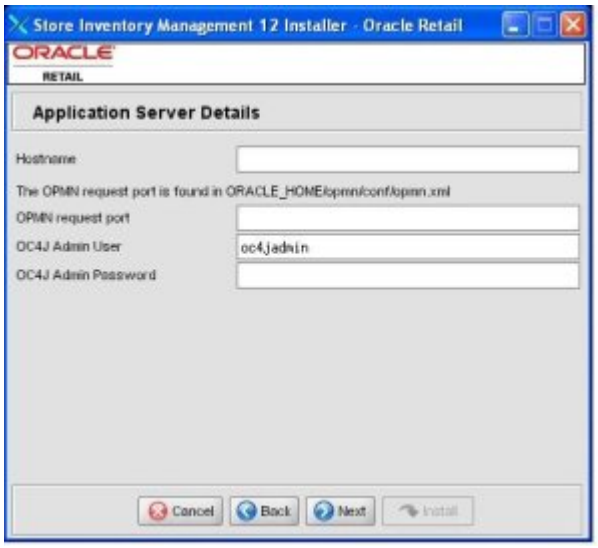
Field Title	StockCount upload directory
Field Description	A filesystem directory and database directory object used for processing StockCount data
Destination	sim_dba.sql
Example	/usr/oracle/retail/sim/batch/stockcountUpload
Notes	The installer does not create these directories or directory objects.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

C

Appendix: SIM Application Installer Screens

You 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:

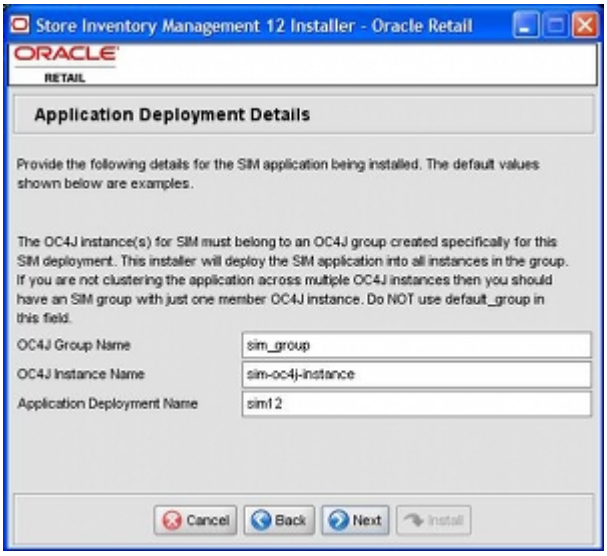
Field Title	Hostname
Field Description	The hostname of the server where the application server is installed
Destination	client_master.cfg
Example	myhost.us.oracle.com
Notes	Used by installer scripts to deploy EAR and WAR files and to create default inputs for client codebase and JNDI provider URL

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"/>
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
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
Notes	Used by installer scripts to deploy EAR and WAR files

Screen: Application Deployment Details



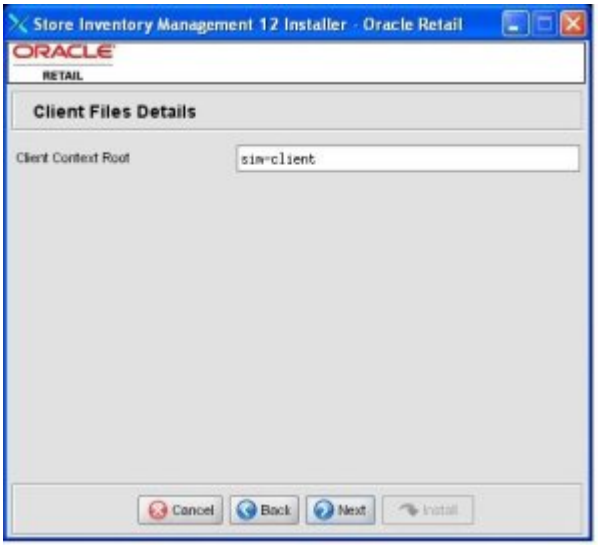
Fields on this screen:

Field Title	OC4J Group Name
Field Description	Name of the OC4J group that was created for this SIM application. The OC4J instance given in the OC4J Instance Name field should be a member of this group. The installer deploys the SIM application to all OC4J instances which are members of this group. For this reason, you should not use default_group. A new group dedicated to SIM should be created instead.
Example	sim_group

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

Field Title	Application Deployment Name
Field Description	The name that is used by the application server to identify the SIM application.
Example	sim12
Notes	Used by installer scripts to deploy the application and to create default values for JNDI provider URL.

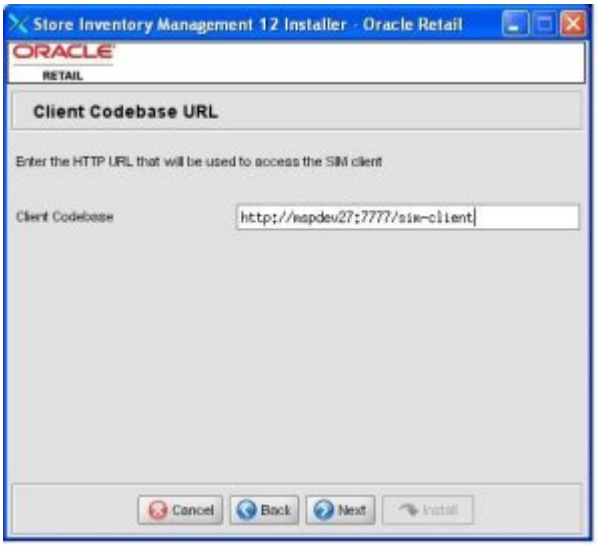
Screen: Client Files Details



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.

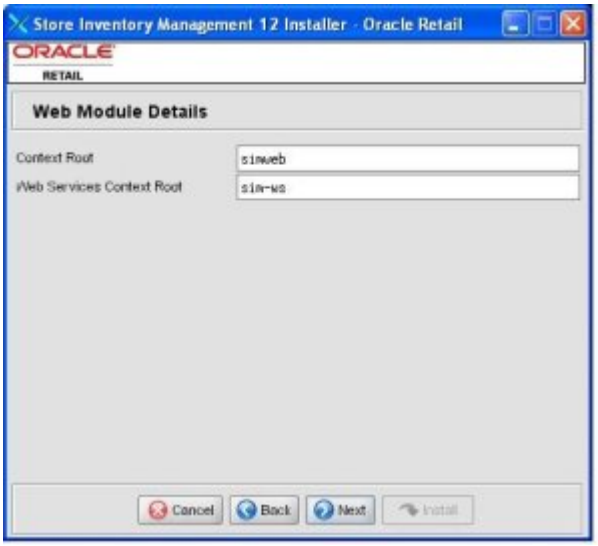
Screen: Client Codebase URL



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

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

Screen: RPM Details

Fields on this screen:

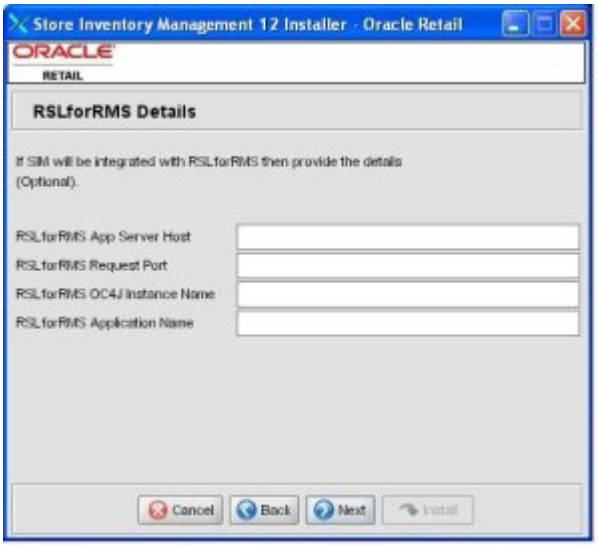
Field Title	RPM App Server Host
Field Description	The name of the application server host where the RPM application is installed.
Destination	jndi_providers.xml
Example	myhost.us.oracle.com
Notes	Used only if integrating SIM with RPM.

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:

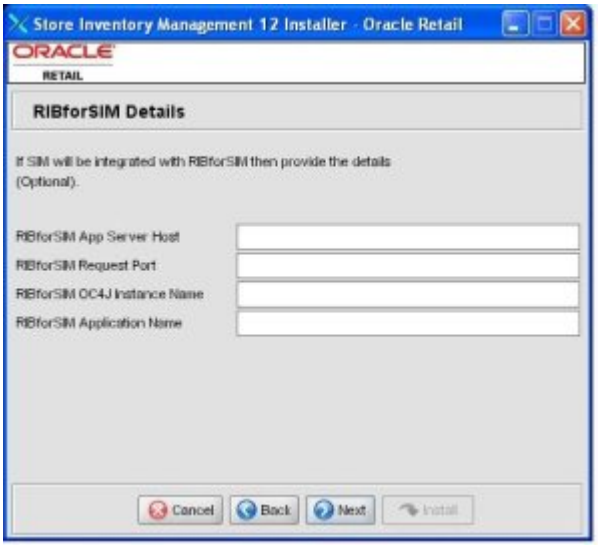
Field Title	RSLforRMS App Server Host
Field Description	The name of the application server host where the RSLforRMS application is installed.
Destination	jndi_providers.xml
Example	myhost.us.oracle.com
Notes	Used only if integrating SIM with RSLforRMS.

Field Title	RSLforRMS Request Port
Field Description	The OPMN request port for the application server where RSLforRMS is 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 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



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 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 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

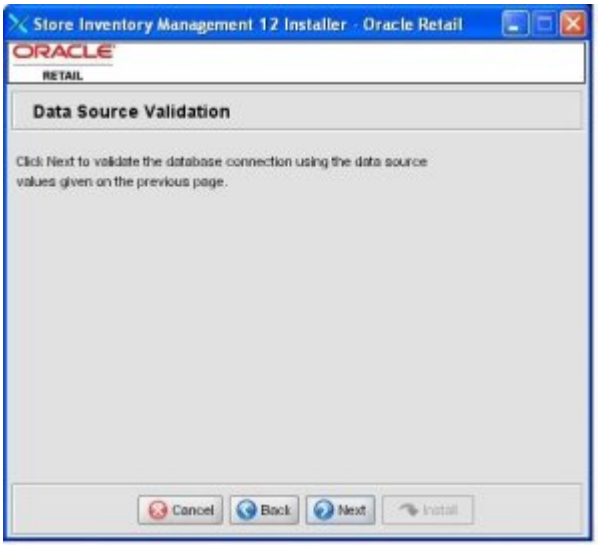
Fields on this screen:

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

Field Title	SIM Schema
Field Description	The schema name
Destination	batch_db.cfg, data-sources.xml
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

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. Click Next to continue.

Screen: LDAP Directory Server Details

Fields on this screen:

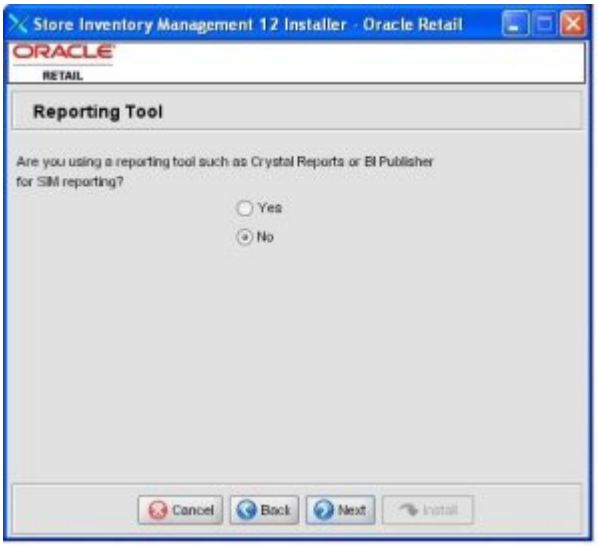
Field Title	LDAP Server URL
Field Description	URL for your LDAP directory server. See Appendix E: URL Reference for expected syntax.
Destination	ldap.cfg
Example	ldap://myhost:389

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	If OID (Oracle Internet Directory) LDAP is used: cn=rsim,dc=mycompany,dc=com If openLDAP is used: retekAppName=rsim,cn=retek,dc=retek,dc=com

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	If OID (Oracle Internet Directory) LDAP is used: cn=admin,cn=users,dc=mycompany,dc=com If openLDAP is used: cn=retek,dc=retek,dc=com

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

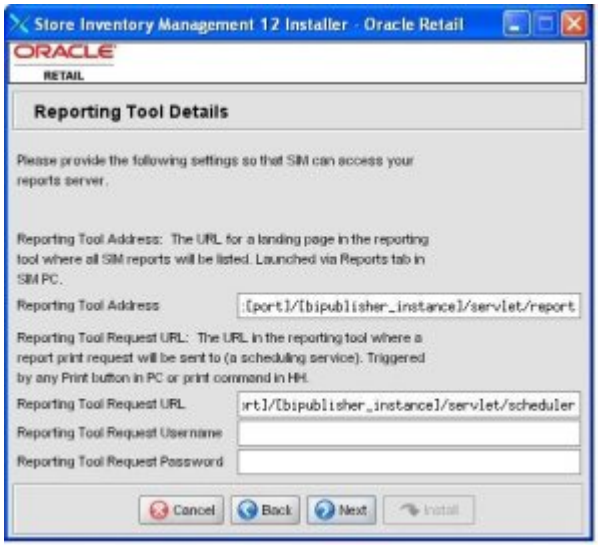
Screen: Reporting Tool



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.

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

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

Field Title	Reporting Tool Request Username
Destination	reporting.cfg

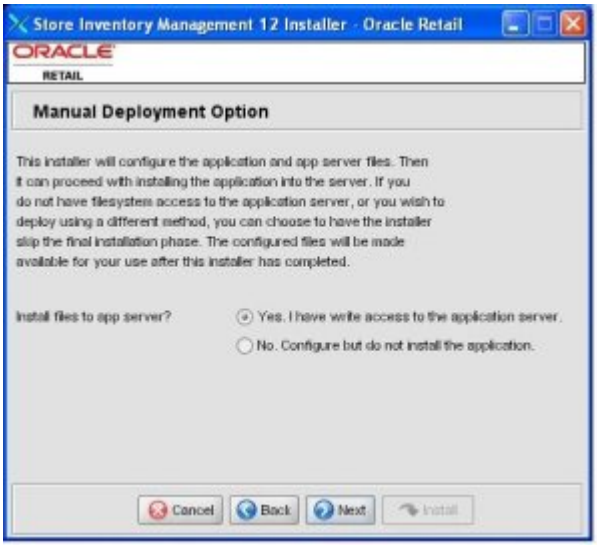
Field Title	Reporting Tool Request Password
Destination	reporting.cfg

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

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.
Notes	If you choose "No", you will need to perform manual steps to complete the installation.

D

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

E

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

The deployer URI is used by the Oracle ANT tasks to deploy an application to an OC4J group. 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>/<group>

- <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.
- <group>: Name of the OC4J group where the application will be deployed.

Example: deployer:cluster:opmn://myhost:6003/sim_group

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

F

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.

Error while unpacking the sim12.ear

Symptom:

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

07/12/19 10:53:17 Notification ==>Error while unpacking sim12.ear
java.util.zip.ZipException: error in opening zip file
```

Solution:

This is a known bug (BugID 6330834) related to Solaris and NFS in Oracle Application Server 10.1.3.4. Follow the workaround documented for this bug: in the opmn.xml file in $ORACLE_HOME/opmn/conf, add the following parameter to the java-options for the instance you are installing.

-Doc4j.autoUnpackLockCount=-1

After making this change you should reload OPMN, restart the affected OC4J instance(s), and retry the retail application installation.