

Oracle Real-Time Scheduler

Server Installation Guide

Release 2.2.1.0

E58441-01

January 2015

Oracle Real-Time Scheduler Server Installation Guide Release 2.2.1.0

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Contents

Preface	i-i
Audience	i-ii
Related Documents	i-ii
Conventions.....	i-iii
Chapter 1	
Overview	1-1
Installation Overview	1-2
Installation Types.....	1-2
Media Pack Components.....	1-5
Chapter 2	
Application Architecture Overview	2-1
Application Architecture	2-1
Tier 1: Desktop/Client, or Presentation Tier	2-1
Tier 2: Mobile Client Tier	2-1
Tier 3: Web Application / Business Application Server, or Business Logic Tier.....	2-1
Tier 4: Database, or Persistence Tier	2-1
Chapter 3	
Supported Platforms and Hardware Requirements	3-1
Software and Hardware Considerations.....	3-2
Operating Systems and Application Servers.....	3-3
Supported Operating Systems and Application Servers	3-3
Hardware Requirements	3-3
Application Server Memory Requirements	3-4
Additional Notes on Supported Platforms.....	3-5
Support for Software Patches and Upgrades	3-5
Chapter 4	
Planning the Installation	4-1
Installation and Configuration Overview	4-2
Installing Prerequisite Third-Party Software	4-2
AIX 7.1 Operating System	4-4
Supported Application Servers	4-4
Web/Application Server Tier.....	4-4
Oracle Linux 6.5 or Red Hat Linux 6.5 Operating System.....	4-8
Supported Application Servers	4-8
Web/Application Server Tier.....	4-8
Solaris 10/11 Operating System.....	4-12
Supported Application Servers	4-12
Web/Application Server Tier.....	4-12
Windows 2008/2012 Operating System	4-16
Supported Application Servers	4-16
Web/Application Server Tier.....	4-16
Installation Readiness Checklist	4-18
Chapter 5	
Installing Oracle Real-Time Scheduler - Initial Installation	5-1

Before You Install	5-2
Initial Installation Procedure.....	5-2
Database Component Installation	5-2
Application Components Installation	5-2
After the Installation	5-9
Operating the Application.....	5-9
Installing Service Packs and Patches.....	5-9
Chapter 6	
Installing Oracle Real-Time Scheduler - Demo Installation	6-1
Before You Install	6-2
Demo Installation Procedure.....	6-2
Database Component Installation	6-2
Application Components Installation	6-2
After the Installation	6-9
Operating the Application.....	6-9
Installing Service Packs and Patches.....	6-9
Chapter 7	
Additional Tasks	7-1
Configuring MapViewer	7-2
Configuring MapViewer Security.....	7-3
Oracle Location Services (eLocation).....	7-3
Configuring the Environment for Oracle BPEL Server	7-4
Configuring the Scheduler.....	7-4
Configuring the Batch Scheduler for Different Servers	7-6
Configuring Business Service SDK	7-7
WebLogic Production Server Considerations.....	7-8
Configuring Identity and Trust	7-8
Building Javadoc Indexes	7-8
Configuring the Environment for Batch Processing	7-9
Customizing Configuration Files	7-9
Customizing the Logo.....	7-9
Generating the Application Viewer	7-10
Installation Verification Checklist.....	7-11
Accessing the Application	7-11
Appendix A	
Installation and Configuration Worksheets.....	A-1
Application Framework Installation and Configuration Worksheets.....	A-1
Third Party Software Configuration.....	A-1
Environment Installation Options	A-4
Environment Description.....	A-7
WebLogic Business Application Server Configuration.....	A-8
WebLogic Web Application Server Configuration.....	A-9
Database Configuration	A-12
General Configuration Options	A-15
Advanced Menu Options.....	A-16
Oracle Real-Time Scheduler Installation and Configuration Worksheets.....	A-26
JMS Configuration	A-26
ORS Environment Description	A-28
Geocode Data Source Configuration.....	A-29
Mapviewer Configuration	A-29
Security Configuration.....	A-30
Appendix B	
Installation Menu Functionality Overview.....	B-1
Installation Menu Functionality Details.....	B-1

Appendix C	
Application Framework Prerequisite Patches	C-1
Appendix D	
Oracle Real-Time Scheduler Fixes	D-1
Appendix E	
Common Maintenance Activities	E-1
Appendix F	
User Documentation.....	F-1
Installing Stand-Alone Online Help	F-1
Appendix G	
License and Copyright Notices	G-1
Notice Concerning Usage of ANTLR	G-2
Notice Concerning Usage of Apache Software.....	G-2
Notice Concerning Usage of ASM.....	G-5
Notice Concerning Usage of Concurrent.....	G-6
Notice Concerning Usage of DOM4J	G-6
Notice Concerning Usage of International Components for Unicode (ICU4J)	G-6
Notice Concerning Usage of Jaxen	G-7
Notice Concerning Usage of JCIP Annotations	G-7
Notice Concerning Usage of SLF4J	G-11
Notice Concerning Usage of Staxmate.....	G-11
Notice Concerning Usage of XMLPULL	G-12
Notice Concerning Usage of XMLUnit	G-12
Notice Concerning Usage of XStream	G-12
Notice Concerning Usage of YUI	G-13

Preface

This guide describes how to install Oracle Real-Time Scheduler.

This preface contains these topics:

- [Audience](#)
- [Related Documents](#)
- [Conventions](#)

Audience

The Oracle Real-Time Scheduler Installation Guide is intended for system administrators installing Oracle Real-Time Scheduler.

To complete this installation you should have:

- Experience installing and configuring application servers and other software
- Administrative privileges on the host where you are installing the software

Related Documents

For more information, see these Oracle documents:

Installation, Configuration and Release Notes

- *Oracle Real-Time Scheduler Release Notes*
- *Oracle Real-Time Scheduler Quick Install Guide*
- *Oracle Real-Time Scheduler Server Installation Guide*
- *Oracle Real-Time Scheduler Mobile Application Installation and Deployment Guide*
- *Oracle Real-Time Scheduler Mobile Application Implementation and Developer Guide*
- *Oracle Real-Time Scheduler DBA Guide*
- *Oracle Real-Time Scheduler Configuration Guide*

User Guides

- *Oracle Real-Time Scheduler Server Application User's Guide*
- *Oracle Real-Time Scheduler Mobile Application User's Guide*

Map Editor Installation and User Guides

- *Oracle Real-Time Scheduler Map Editor User's Guide*
- *Oracle Real-Time Scheduler Map Editor Installation Guide*

Framework Guides

- *Oracle Utilities Application Framework V4.2.0.2 Business Process Guide*
- *Oracle Utilities Application Framework V4.2.0.2 Administration Guide*
- *Oracle Utilities Application Framework V4.2.0.2 Release Notes*

Supplemental Documents

- *Oracle Real-Time Scheduler Server Administration Guide*
- *Oracle Real-Time Scheduler Batch Server Administration Guide*
- *Oracle Real-Time Scheduler Security Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Chapter 1

Overview

This chapter provides an overview of the installation of Oracle Real-Time Scheduler. This chapter includes information on the following:

- [Installation Overview](#)
- [Installation Types](#)
- [Media Pack Components](#)

Installation Overview

Installing Oracle Real-Time Scheduler involves the following steps:

1. Review the different tiers of the application architecture as described in chapter [Application Architecture Overview](#).
2. Understand the hardware requirements for installing the application and the supported platforms for the application and database servers as described in chapter [Supported Platforms and Hardware Requirements](#).

Note: The installation and administration of the database server tier is described in detail in the document *Oracle Real-Time Scheduler Database Administrator's Guide*.

3. Plan your installation and install all required third-party software as described in chapter [Planning the Installation](#). The required software is listed for each supported combination of operating system and application server.
4. Install the database as described in the document *Oracle Real-Time Scheduler Database Administrator's Guide*.
5. Determine the type of installation and follow the instructions in the chapter corresponding to that type of installation.
6. Install the Mobile Client for Oracle Real-Time Scheduler on mobile devices as described in guide *Oracle Real-Time Scheduler Mobile Application Installation and Deployment Guide*.
7. Follow the post-installation guidelines described in chapter [Additional Tasks](#).

Installation Types

The first step in the installation procedure is to determine the installation type that meets your business requirements. The following are the possible installation types:

Initial Installation - a base installation, typically used for a production environment

Demo Installation - a base installation with pre-populated demo data, typically used for demonstration or training purposes

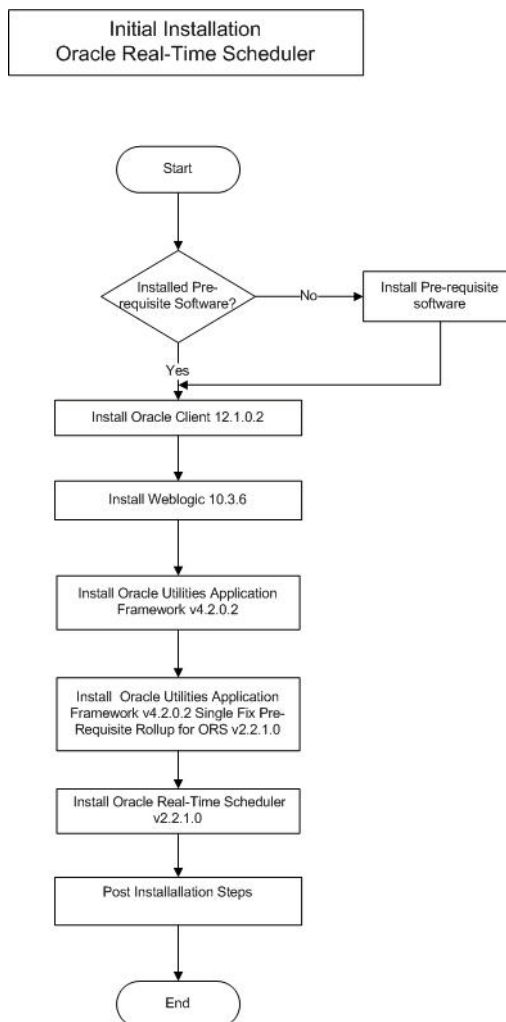
The following sections describe these installation types in detail.

Initial Installation

This installation type is applicable when installing Oracle Real-Time Scheduler for the first time or from scratch. For an initial install, you must install all of the following components:

- Database components
Refer to the “Initial Install” section of the *Oracle Real-Time Scheduler Database Administrator's Guide* for more information.
- Application components
 - Oracle Utilities Application Framework v4.2.0.0 Service Pack 2 (also referred to as v4.2.0.2)
 - Oracle Utilities Application Framework v4.2.0.2 Single Fix Pre-Requisite Rollup for ORS v2.2.1.0
 - Oracle Real-Time Scheduler v2.2.1.0

The following diagram shows a typical workflow of the initial installation process:



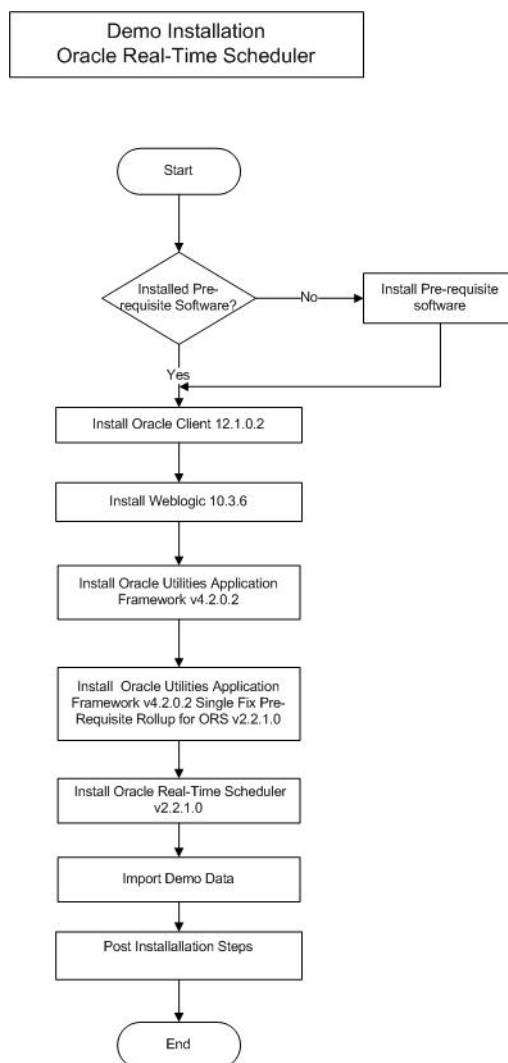
Refer to chapter [Installing Oracle Real-Time Scheduler - Initial Installation](#) for the detailed steps involved in installing each of these components.

Demo Installation

This installation type is applicable when installing a demo application of Oracle Real-Time Scheduler for demonstration or training purposes. For a demo install, you must install all of the following components:

- Database components
Refer to the “Demo Install” section of the *Oracle Real-Time Scheduler Database Administrator’s Guide* for more information.
- Application components
 - Oracle Utilities Application Framework v4.2.0.0 Service Pack2 (also referred to as v4.2.0.2)
 - Oracle Utilities Application Framework v4.2.0.2 Single Fix Pre-Requirement Rollup for ORS v2.2.1.0
 - Oracle Real-Time Scheduler v2.2.1.0

The following diagram shows a typical workflow of the demo installation process:



Refer to chapter [Installing Oracle Real-Time Scheduler - Demo Installation](#) for the steps involved in installing each of the above components.

Recommendations for Creating a Production Environment

Oracle recommends that a production environment is created by using the Initial Installation installation type as described above.

If there is any custom configuration that needs to be migrated from a development or “gold” environment into production, it can be done by using Configuration Migration Assistant (CMA). Please refer to Appendix D: Configuration Migration Assistant in Oracle Real-Time Scheduler Configuration Guide document for more details about CMA.

Oracle does NOT recommend creation of a production environment either by using a Demo Installation Type or by cloning an existing Demo installation.

Media Pack Components

Documentation Packages

- Oracle Real-Time Scheduler v2.2.1.0 Release Notes
- Oracle Real-Time Scheduler v2.2.1.0 Quick Install Guide
- Oracle Real-Time Scheduler v2.2.1.0 Install Documentation
- Oracle Real-Time Scheduler v2.2.1.0 User Documentation
- Oracle Real-Time Scheduler v2.2.1.0 Supplemental Documentation

Installation Packages

- Oracle Utilities Application Framework Service Pack2 v4.2.0.2
- Oracle Utilities Application Framework v4.2.0.2 Single Fix Prerequisite Rollup for Oracle Real-Time Scheduler v2.2.1.0
- Oracle Real-Time Scheduler v2.2.1.0 Multiplatform
- Oracle Real-Time Scheduler v2.2.1.0 Mobile Application Multiplatform
- Oracle Real-Time Scheduler v2.2.1.0 Oracle Database
- Oracle Real-Time Scheduler v2.2.1.0 MapEditor

Chapter 2

Application Architecture Overview

This section provides an overview of the Oracle Real-Time Scheduler application architecture.

Application Architecture

The Oracle Real-Time Scheduler application is deployed on multiple tiers.

Please see the Oracle Real-Time Scheduler *Server Administration Guide* for a more detailed description of the application architecture and individual tiers.

Tier 1: Desktop/Client, or Presentation Tier

This tier is implemented in a browser-based client. Users use a desktop client web browser to log in to and use the Oracle Real-Time Scheduler application. Note also that a desktop machine running Microsoft Windows and the Oracle client is required to perform some of the product installation steps.

Tier 2: Mobile Client Tier

This tier is implemented on mobile computers such as laptops and handhelds. Users can install the mobile client software to use the mobile functionality of Oracle Real-Time Scheduler.

Tier 3: Web Application / Business Application Server, or Business Logic Tier

This tier is implemented in a web application or business application server. The business application component can be installed as part of the web application server, or as a separate component. Except where explicitly noted, most of the Oracle Real-Time Scheduler installation documentation assumes that the web application and business application servers reside together.

Tier 4: Database, or Persistence Tier

This tier is implemented in a database server. The database server stores data maintained by the Oracle Real-Time Scheduler application. More specifically, the database tier contains the data server files and database executables that physically store the tables, indexes, and other database objects for your system.

Chapter 3

Supported Platforms and Hardware Requirements

This chapter includes:

- [Software and Hardware Considerations](#)
- [Operating Systems and Application Servers](#)
- [Hardware Requirements](#)
- [Application Server Memory Requirements](#)
- [Additional Notes on Supported Platforms](#)
- [Support for Software Patches and Upgrades](#)

Software and Hardware Considerations

There are many factors that can influence software and hardware decisions. For example, your system may have to satisfy specific performance, availability, or scalability requirements, or to support running in a language other than English. These business requirements, together with the chosen system architecture, should be used in initial software and hardware planning.

Some of the questions that you should answer before beginning the installation include:

- On which hardware platform and operating system would Oracle Real-Time Scheduler be deployed?
 - On which web server product would Oracle Real-Time Scheduler be deployed?
 - On which database product would Oracle Real-Time Scheduler be deployed?
 - Do you plan to deploy multiple Oracle Real-Time Scheduler instances on the same physical server?
 - How do you plan to deploy Oracle Real-Time Scheduler?
 - Web/application/database on the same physical server
 - Web/application on one server and database on separate server
 - Each component on its own server
- Note:** If you deploy the mobility application and web application on different servers, the log file path should be shared on the network.
- How do you plan to secure Oracle Real-Time Scheduler when communicating with devices over unsecured networks like the internet?

For detailed descriptions of various deployment architecture choices that may aid in planning, please see the document *Oracle Utilities Application Framework Architecture Guidelines*, available on My Oracle Support (Article ID 807068.1).

The final hardware and software decisions must comply with the specific requirements of Oracle Real-Time Scheduler, as described in the rest of this chapter.

Operating Systems and Application Servers

Supported Operating Systems and Application Servers

In addition, the following table details the operating system and application server combinations on which this version of Oracle Real-Time Scheduler is supported.

Operating System and Web Browser (Client)	Operating System (Server)	Chipset	Application Server	Database
Windows 7* (Internet Explorer 8.x, 9.x in Compatibility Mode)	AIX 7.1 TL00 (64-bit)	POWER 64-bit	WebLogic 10.3.6	Oracle 11.2.0.1+ Oracle 12.1.0.1+
	Oracle Linux 5.8, 6.2, 6.4 or 6.5 (64-bit)	x86_64	WebLogic 10.3.6	Oracle 11.2.0.1+ Oracle 12.1.0.1+
	Red Hat Enterprise Linux 5.8, 6.2, 6.4 or 6.5 (64-bit)			
	Sun Solaris 10 Sun Solaris 11 (64-bit)	SPARC	WebLogic 10.3.6	Oracle 11.2.0.1+ Oracle 12.1.0.1+
	Windows Server 2008 R2 (64-bit) Windows Server 2012 R2 (64-bit)	x86_64	WebLogic 10.3.6	Oracle 11.2.0.1+ Oracle 12.1.0.1+

*Oracle support for Windows XP ended December 2013. Microsoft support for Windows XP ended April 2014.

** **Oracle Real-Time Scheduler** is supported on the versions of Oracle Linux specified. Because Oracle Linux is 100% userspace-compatible with Red Hat Enterprise Linux, **Oracle Real-Time Scheduler** also is supported on Red Hat Enterprise Linux for this release.

Hardware Requirements

Configuration	Processor	Memory (RAM)	Monitor Display
Minimum	Pentium IV - 2.0 GHz	1024 MB	1024X768** 16-bit Color
Recommended*	Pentium IV - 3.0+ GHz, Or any Core 2 Duo Or any Athlon X2	2048 MB	1280X1024* 32-bit Color

* The Recommended configuration will support better performance of the client.

** To reduce the amount of scrolling required for pages that are longer than 768 or 1024 pixels, consider placing a monitor into vertical position (with narrow side on the bottom).

Web Browser Requirements

The following operating system / web browser software is supported:

- Windows 7 (32-bit or 64-bit) with Internet Explorer 8.x, 9.x

Note: Internet Explorer 8.x and 9.x must have Compatibility Mode enabled.

- Java plug-in 1.6.0 17

Web/Business Application Server: Software and Hardware Requirements

Please consult the “Additional Notes on Supported Platforms” on page 5 to determine which web application servers can be used with the operating system that will be hosting this tier.

The recommendations that follow are based on a standard installation with both the application and business servers on the same machine and the system running with the default values. The minimum resource requirements exclude third-party software installation requirements. Refer to the third-party vendors for specific requirements. The following sizing excludes the Oracle database server installation.

Application Server Memory Requirements

For each application server environment a minimum of 4 GB of real memory is required, plus 6 GB of swap space.

Disk Space Requirements

The approximate disk space requirements in a standard installation are as follows:

Location	Size	Usage
\$\$PLEBASE	10 GB minimum	This location is where the application and Framework get installed. Startup, shutdown and other online log files are stored here. The size and space that is used should be monitored because various debugging options can significantly affect the size of log files.
\$\$PLAPP	4 GB minimum	This location is used for storing batch log files and output from batch jobs. The size of this space should be influenced by which batches are run and how often, and the amount of debugging information that is collected.
Location of the application web work files on the web servers	3 GB minimum	This location is used by the various web server vendors to expand the application. It should be considered when installing these products. Refer to the individual web server documentation to determine the location of the temporary files.
Installation temporary area	5 GB	The application gets installed from this location. You need enough space to uncompress the files and install the application.

Location	Size	Usage
Oracle data area	4 GB minimum	This location is where the Oracle database data files are stored. The size of this space should be based on the requirements of the production environment. For an initial or demo database install 4 GB should be sufficient.

Additional Notes on Supported Platforms

Oracle Database Servers

This version is supported with Oracle Database Server 11.2.0.1+ or 12.1.0.1+ on all of the certified and supported operating systems listed above.

The Oracle 11.2.0.1+ or 12.1.0.1+ client is required for this version of the database server.

The following Oracle Database Server Editions are supported:

- Oracle Database Server Standard Edition
- Oracle Database Server Enterprise Edition

Oracle VM Support

This version of Oracle Real-Time Scheduler is supported on Oracle VM Server for x86 for supported releases of Oracle Linux and Microsoft Windows operating systems.

Oracle Support Policy on VMWare - Refer to My Oracle Support knowledge base article 249212.1 for Oracle's support policy on VMWare

Supported on the Mobile Client

The mobile application can be installed and accessed as a compiled application or as a browser-based application.

To install and access the mobile application as a **compiled** application, it has to be downloaded from a USB connection, an App Store, a URL download location, a Mobile Device Management Software or installed via USB. It is considered a “client based” mobile application as it resides on the mobile device. The application includes a local database which allows you to work offline or in disconnected mode.

To access the mobile application as a **browser-based application**, it is accessed via a regular web browser on any device such as a phone, tablet, laptop or desktop. This does not require any installation and can simply be accessed via a URL.

We recommend using compiled application in production and browser based application for testing and implementation.

Please refer to Oracle Real-Time Scheduler Mobile Application installation and implementation guides for more information.

Support for Software Patches and Upgrades

Due to the ongoing nature of software improvement, vendors will periodically issue patches and service packs for the operating systems, application servers and database servers on top of specific versions that Oracle products have already been tested against.

If it is necessary to apply an upgrade, please do so in a test environment that is running on the same platform as your production environment prior to updating the production environment itself.

The exception from this rule is Hibernate software version 4.1.0. This version should not be upgraded.

Always contact Oracle Support prior to applying vendor updates that do not guarantee backward compatibility.

Chapter 4

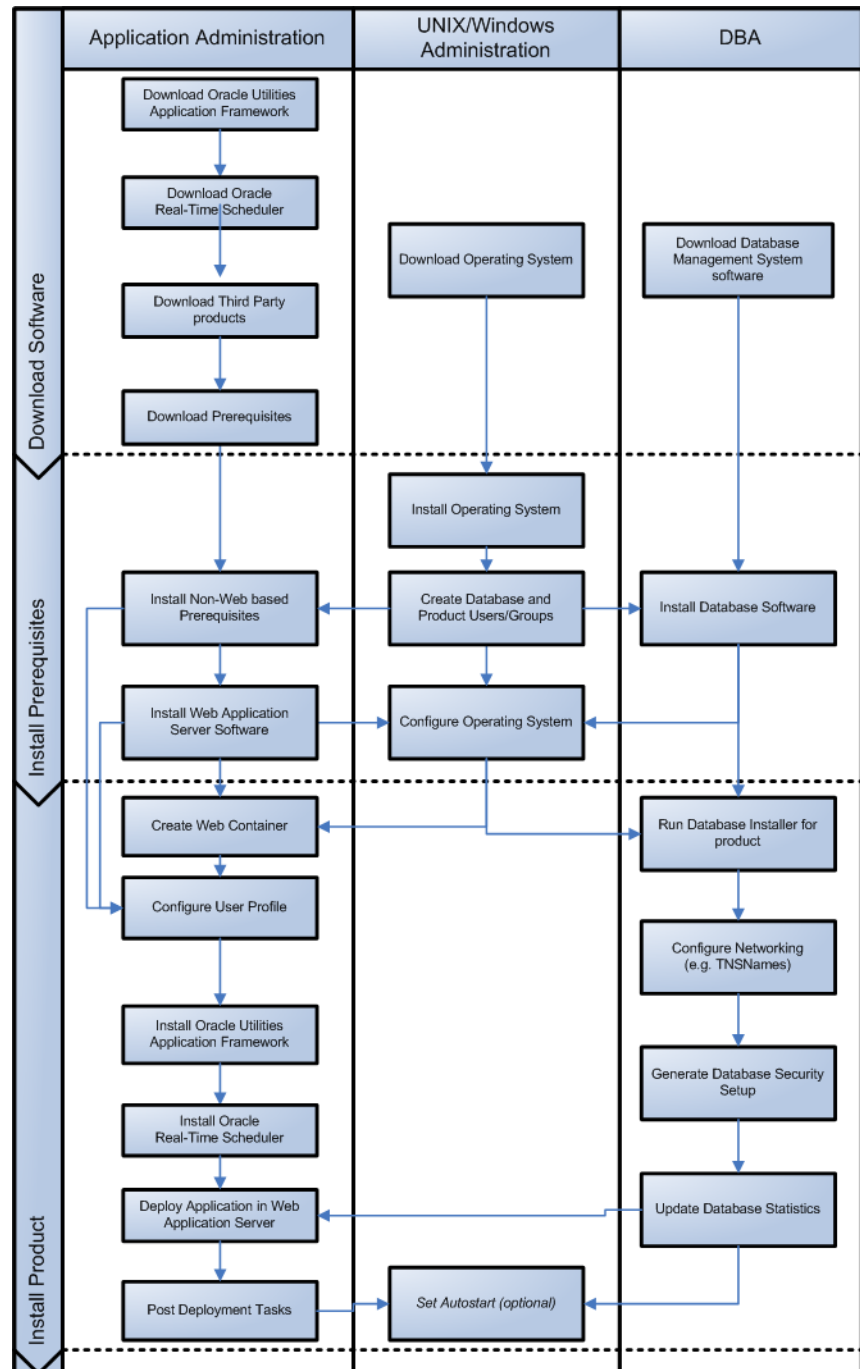
Planning the Installation

This chapter provides information for planning an Oracle Real-Time Scheduler installation, including:

- [Installation and Configuration Overview](#)
- [Installing Prerequisite Third-Party Software](#)
- [Installation Readiness Checklist](#)

Installation and Configuration Overview

The following diagram provides an overview of the steps that need to be taken to install and configure Oracle Real-Time Scheduler :



Installing Prerequisite Third-Party Software

This section describes the software that needs to be installed for each of the supported operating system and application server combinations. It contains the following sub-sections:

- [AIX 7.1 Operating System](#)
- [Oracle Linux 6.5 or Red Hat Linux 6.5 Operating System](#)

- [Solaris 10/11 Operating System](#)
- [Windows 2008/2012 Operating System](#)

AIX 7.1 Operating System

This section describes the software requirements for operating the application using the AIX application server.

Supported Application Servers

Operating System	Chipsets	Application Server
AIX 7.1 (64-bit) TL00	POWER 64-bit	Oracle WebLogic 11gR1 (10.3.6+) 64-bit version

Web/Application Server Tier

AIX 7.1 TL00 Operating System Running on Power5 and Power6 Architecture

UNIX Administrator User ID

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Values
Oracle Real-Time Scheduler Administrator User ID	cissys	
Oracle Real-Time Scheduler User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the installed files.

1. Create a group called cisusr (user group).
2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.
3. Set the stack size limit to 50 MB or more in the user profile startup script for cissys user:


```
ulimit -s 51200
```
4. Set the desired hard/soft limit of the file handler to 4096 or higher. The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

Security Configuration

Various options exist to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-executable files will have the correct user groups and to restrict the permissions available to

legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 022 to ensure files created during normal operation have the correct permissions.

Please replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files
cisoper	-----	Low level operator. This user will only be able to read logs files and collect information for debugging and investigative purposes. Care should be taken in production to disable debugging as debugging information could contain potential sensitive data which this user should not have privy to.

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

Oracle Client 11.2.0.1+/12.1.0.1+ — Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

IBM Java Software Development Kit version 6.0 SR15 64-bit

Installation of Java is a prerequisite for using Oracle WebLogic as a web application server.

At the time of release, AIX Java packages could be obtained from:

<http://www.ibm.com/developerworks/java/jdk/aix/service.html>

The web server requires the 64-bit Java platform in order to function. The main prerequisite for the web server is the version of java mentioned above.

For the Administrator userid (cissys), ensure that the environment variable JAVA_HOME is set up, and that "java" can be found in cissys' PATH variable.

Hibernate 4.1.0FINAL

You must install Hibernate before installing Oracle Real-Time Scheduler.

Follow the steps below to install Hibernate:

1. Create a Hibernate jar external depot:

```
export HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
```

2. Download the hibernate-release-4.1.0.Final.zip file from <http://sourceforge.net/projects/hibernate/files/hibernate4/>
3. Click the “4.1.0.Final” link to download the zip file.
4. Extract the contents of the archive file:

```
jar xvf hibernate-release-4.1.0.Final.zip
```

Note: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.

5. Copy the jar files to your Hibernate jar directory (\$HIBERNATE_JAR_DIR) using the following commands:

```
cp hibernate-release-4.1.0.Final/lib/optional/ehcache/ehcache-core-2.4.3.jar
$HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-ehcache-4.1.0.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-commons-annotations-4.0.1.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-core-4.1.0.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-api-1.0.1.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-GA.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/jboss-logging-3.1.0.CR2.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/jboss-transaction-api_1.1_spec-1.0.0.Final.jar $HIBERNATE_JAR_DIR
```

Oracle WebLogic 11gR1 (10.3.6) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 11gR1 (10.3.6)

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0)

Oracle ADF 11g (11.1.1.6.0) requires Oracle Weblogic Server 10.3.6 and it must be installed prior to installing ADF.

Oracle ADF can be downloaded from the following link:

<http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html?>

Note: Please make sure you only use the version of Oracle ADF certified with Weblogic server.

Note: Oracle recommends that you install Oracle Application Developer Framework (ADF) instead of Oracle JDeveloper.

Oracle JDeveloper 11g (11.1.1.6.0) Studio Edition

JDeveloper 11g (11.1.1.6.0) Studio Edition is supported on any platform that runs JDK 6. It requires Oracle Weblogic Server 10.3.6. It must be installed prior to installing the Oracle Utilities Application Framework.

Oracle JDeveloper can be downloaded from following link:

<http://www.oracle.com/technology/software/products/jdev/index.html>

Oracle MapViewer 11g (11.1.1.7.3)

Oracle Fusion Middleware MapViewer 11g Release 1 (11.1.1.7.3) is a tool that renders maps showing different kinds of spatial data. It can be downloaded from the following link:

<http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html>

Oracle BPEL Process Manager 11gR1

Oracle BPEL Process Manager is optional software and is required only for SMS dispatching functionality. Oracle BPEL Process Manager 11gR1 is a component of Oracle SOA Suite 11gR1. The Oracle BPEL Process Manager version is determined by your SMS gateway application.

You can download SOA Suite 11gR1 from the SOA Suite download page at the following link:

<http://www.oracle.com/technology/products/soa/soasuite/collateral/downloads.html#11g>

GCC 4.2.4

GCC 4.2.4 libraries need to be installed for the scheduler functionality to work properly. The following GCC runtime libraries are required to be installed:

- libgcc : GCC compiler dynamic runtime library
- libstdc++ : G++ compiler dynamic runtime library

After installing the GCC runtime libraries, copy the following libraries to <INSTALL_DIR>/runtime directory:

- libstdc++.a
- libgcc_s.a

Alternately, you can add these libraries to LD_LIBRARY_PATH environment variable.

Oracle Linux 6.5 or Red Hat Linux 6.5 Operating System

This section describes the software requirements for operating the application using the Oracle Linux or Red Hat Linux application server.

Supported Application Servers

Operating System	Chipsets	Application Server
Oracle Linux6.5 (64-bit) Red Hat Enterprise Linux 6.5(64-bit)	x86_64	Oracle WebLogic 11gR1 (10.3.6) 64-bit version

Web/Application Server Tier

Oracle Linux 6.5 or Red Hat Enterprise Linux 6.5 Operating System Running on x86_64 64-bit Architecture

UNIX Administrator User ID

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Values
Oracle Real-Time Scheduler Administrator User ID	cissys	
Oracle Real-Time Scheduler User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create a group called cisusr (user group)
2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.
3. Set the stack size limit to 50 MB or more in the user profile startup script for cissys user:
4. `ulimit -s 51200` Set the desired hard/soft limit of the file handler to 4096 or higher. The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell

To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

Security Configuration

Various options exist to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-executable files will have the correct user groups and to restrict the permissions available to

legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 022 to ensure files created during normal operation have the correct permissions.

Please replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files
cisoper	-----	Low level operator. This user will only be able to read logs files and collect information for debugging and investigative purposes. Care should be taken in production to disable debugging as debugging information could contain potential sensitive data which this user should not have privy to.

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

Oracle Client 11.2.0.1+/12.1.0.1+ — Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Oracle Java Development Kit Version 6.0 Update 65 or Later, 64-bit

At the time of release, the latest patch of the Oracle Java 6.0 package can be obtained from:

<https://support.oracle.com>

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0FINAL

You must install Hibernate before installing Oracle Real-Time Scheduler.

Follow the steps below to install Hibernate:

1. Create a Hibernate jar external depot:

```
export HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
```

2. Download the hibernate-release-4.1.0.Final.zip file from <http://sourceforge.net/projects/hibernate/files/hibernate4/>
3. Click the “4.1.0.Final” link to download the zip file.
4. Extract the contents of the archive file:

```
jar xvf hibernate-release-4.1.0.Final.zip
```

Note: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.

5. Copy the jar files to your Hibernate jar directory (\$HIBERNATE_JAR_DIR) using the following commands:

```
cp hibernate-release-4.1.0.Final/lib/optional/ehcache/ehcache-core-2.4.3.jar
$HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-ehcache-4.1.0.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-commons-annotations-4.0.1.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-core-4.1.0.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-api-1.0.1.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-GA.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/jboss-logging-3.1.0.CR2.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/jboss-transaction-api_1.1_spec-1.0.0.Final.jar $HIBERNATE_JAR_DIR
```

Oracle WebLogic 11gR1 (10.3.6) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 11gR1 (10.3.6)

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0)

Oracle ADF 11g (11.1.1.6.0) requires Oracle Weblogic Server 10.3.6 and it must be installed prior to installing ADF.

Oracle ADF can be downloaded from the following link:

<http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html>

Note: Please make sure you only use the version of Oracle ADF certified with Weblogic server.

Note: Oracle recommends that you install Oracle Application Developer Framework (ADF) instead of Oracle JDeveloper.

Oracle JDeveloper 11g (11.1.1.6.0) Studio Edition

JDeveloper 11g (11.1.1.6.0) Studio Edition is supported on any platform that runs JDK 6. It requires Oracle Weblogic Server 10.3.6. It must be installed prior to installing the Oracle Utilities Application Framework.

Oracle JDeveloper can be downloaded from following link:

<http://www.oracle.com/technology/software/products/jdev/index.html>

Oracle MapViewer 11g (11.1.1.7.3)

Oracle Fusion Middleware MapViewer 11g Release 1 (11.1.1.7.3) is a tool that renders maps showing different kinds of spatial data. It can be downloaded from the following link:

<http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html>

Oracle BPEL Process Manager 11gR1

Oracle BPEL Process Manager is optional software and is required only for SMS dispatching functionality. Oracle BPEL Process Manager 11gR1 is a component of Oracle SOA Suite 11gR1. The Oracle BPEL Process Manager version is determined by your SMS gateway application.

You can download SOA Suite 11gR1 from the SOA Suite download page at the following link:

<http://www.oracle.com/technology/products/soa/soasuite/collateral/downloads.html#11g>

Solaris 10/11 Operating System

This section describes the software requirements for operating the application using the Sun Solaris 11 application server.

Supported Application Servers

Operating System	Chipsets	Application Server
Solaris 10/11(64-bit)	SPARC	Oracle WebLogic 11gR1 (10.3.6) 64-bit version

Web/Application Server Tier

Solaris 10/11 Operating System Running on SPARC-based 64-bit Architecture

UNIX Administrator User ID

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Values
Oracle Real-Time Scheduler Administrator User ID	cissys	
Oracle Real-Time Scheduler User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create a group called cisusr (user group)
2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.
3. Set the stack size limit to 50 MB or more in the user profile startup script for cissys user:
4. `ulimit -s 51200` Set the desired hard/soft limit of the file handler to 4096 or higher.

The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

```
set +o noclobber
```

Security Configuration

Various options exist to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-executable files will have the correct user groups and to restrict the permissions available to legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 022 to ensure files created during normal operation have the correct permissions.

Please replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files
cisoper	-----	Low level operator. This user will only be able to read logs files and collect information for debugging and investigative purposes. Care should be taken in production to disable debugging as debugging information could contain potential sensitive data which this user should not have privy to.

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

Oracle Client 11.2.0.1+/12.1.0.1+ — Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Oracle Java Development Kit Version 6.0 Update 65 or Later, 64-bit

This software is only required for Oracle WebLogic installations.

At the time of release, the latest patch of the Oracle Java 6.0 package can be obtained from:

<https://support.oracle.com>

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0FINAL

You must install Hibernate before installing Oracle Real-Time Scheduler.

Follow the steps below to install Hibernate:

1. Create a Hibernate jar external depot:


```
export HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
```
2. Download the hibernate-release-4.1.0.Final.zip file from <http://sourceforge.net/projects/hibernate/files/hibernate4/>

3. Click the “4.1.0.Final” link to download the zip file.

4. Extract the contents of the archive file:

```
jar xvf hibernate-release-4.1.0.Final.zip
```

Note: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.

5. Copy the jar files to your Hibernate jar directory (\$HIBERNATE_JAR_DIR) using the following commands:

```
cp hibernate-release-4.1.0.Final/lib/optional/ehcache/ehcache-core-2.4.3.jar
$HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-ehcache-4.1.0.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-commons-annotations-4.0.1.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-core-4.1.0.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-api-1.0.1.Final.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-GA.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/jboss-logging-3.1.0.CR2.jar $HIBERNATE_JAR_DIR
```

```
cp hibernate-release-4.1.0.Final/lib/required/jboss-transaction-api_1.1_spec-1.0.0.Final.jar $HIBERNATE_JAR_DIR
```

Oracle WebLogic 11gR1 (10.3.6) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 11gR1 (10.3.6)

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0)

Oracle ADF 11g (11.1.1.6.0) requires Oracle Weblogic Server 10.3.6 and it must be installed prior to installing ADF.

Oracle ADF can be downloaded from the following link:

<http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html?>

Note: Please make sure you only use the version of Oracle ADF certified with Weblogic server.

Note: Oracle recommends that you install Oracle Application Developer Framework (ADF) instead of Oracle JDeveloper.

Oracle JDeveloper 11g (11.1.1.6.0) Studio Edition

JDeveloper 11g (11.1.1.6.0) Studio Edition is supported on any platform that runs JDK 6. It requires Oracle Weblogic Server 10.3.6. It must be installed prior to installing the Oracle Utilities Application Framework.

Oracle JDeveloper can be downloaded from following link:

<http://www.oracle.com/technology/software/products/jdev/index.html>

Oracle MapViewer 11g (11.1.1.7.3)

Oracle Fusion Middleware MapViewer 11g Release 1 (11.1.1.7.3) is a tool that renders maps showing different kinds of spatial data. It can be downloaded from the following link:

<http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html>

Oracle BPEL Process Manager 11gR1

Oracle BPEL Process Manager is optional software and is required only for SMS dispatching functionality. Oracle BPEL Process Manager 11gR1 is a component of Oracle SOA Suite 11gR1. The Oracle BPEL Process Manager version is determined by your SMS gateway application.

You can download SOA Suite 11gR1 from the SOA Suite download page at the following link:

<http://www.oracle.com/technology/products/soa/soasuite/collateral/downloads.html#11g>

Windows 2008/2012 Operating System

This section describes the software requirements for operating the application using the Windows application server.

Supported Application Servers

Operating System	Chipsets	Application Server
Windows Server 2008 R2 (64-bit)	x86_64	Oracle WebLogic 11gR1 (10.3.6) 64-bit version
Windows Server 2012 R2 (64-bit)		

Web/Application Server Tier

Oracle Client 11.2.0.1+/12.1.0.1+ — Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Oracle Java Development Kit Version 6.0 Update 65 or Later, 64-bit

This software is only required for Oracle WebLogic installations.

At the time of release, the latest patch of the Oracle Java 6.0 package can be obtained from:

<https://support.oracle.com>

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0FINAL

You must install Hibernate before installing Oracle Real-Time Scheduler.

Follow the steps below to install Hibernate:

1. Create a Hibernate jar external depot:


```
set HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
```
2. Download the hibernate-release-4.1.0.Final.zip file from <http://sourceforge.net/projects/hibernate/files/hibernate4/>
3. Click the "4.1.0.Final" link to download the zip file.
4. Extract the contents of the archive file:


```
jar xvf hibernate-release-4.1.0.Final.zip
```

Note: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.

5. Copy the jar files to your Hibernate jar directory (%HIBERNATE_JAR_DIR%) using the following commands:

```

copy hibernate-release-4.1.0.Final/lib/optional/ehcache/ehcache-
core-2.4.3.jar %HIBERNATE_JAR_DIR%

copy hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-
ehcache-4.1.0.Final.jar %HIBERNATE_JAR_DIR%

copy hibernate-release-4.1.0.Final/lib/required/hibernate-commons-
annotations-4.0.1.Final.jar %HIBERNATE_JAR_DIR%

copy hibernate-release-4.1.0.Final/lib/required/hibernate-core-
4.1.0.Final.jar %HIBERNATE_JAR_DIR%

copy hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-
api-1.0.1.Final.jar %HIBERNATE_JAR_DIR%

copy hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-
GA.jar %HIBERNATE_JAR_DIR%

copy hibernate-release-4.1.0.Final/lib/required/jboss-logging-
3.1.0.CR2.jar %HIBERNATE_JAR_DIR%

copy hibernate-release-4.1.0.Final/lib/required/jboss-transaction-
api_1.1_spec-1.0.0.Final.jar %HIBERNATE_JAR_DIR%

```

Oracle WebLogic 11gR1 (10.3.6) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 11gR1 (10.3.6)

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0)

Oracle ADF 11g (11.1.1.6.0) requires Oracle Weblogic Server 10.3.6 and it must be installed prior to installing ADF.

Oracle ADF can be downloaded from the following link:

<http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html>

Note: Please make sure you only use the version of Oracle ADF certified with Weblogic server.

Note: Oracle recommends that you install Oracle Application Developer Framework (ADF) instead of Oracle JDeveloper.

Oracle JDeveloper 11g (11.1.1.6.0) Studio Edition

JDeveloper 11g (11.1.1.6.0) Studio Edition is supported on any platform that runs JDK 6. It requires Oracle Weblogic Server 10.3.6. It must be installed prior to installing the Oracle Utilities Application Framework.

Oracle JDeveloper can be downloaded from following link:

<http://www.oracle.com/technology/software/products/jdev/index.html>

Oracle MapViewer 11g (11.1.1.7.3)

Oracle Fusion Middleware MapViewer 11g Release 1 (11.1.1.7.3) is a tool that renders maps showing different kinds of spatial data. It can be downloaded from the following link:

<http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html>

Oracle BPEL Process Manager 11gR1

Oracle BPEL Process Manager is optional software and is required only for SMS dispatching functionality. Oracle BPEL Process Manager 11gR1 is a component of Oracle SOA Suite 11gR1. The Oracle BPEL Process Manager version is determined by your SMS gateway application.

You can download SOA Suite 11gR1 from the SOA Suite download page at the following link:

<http://www.oracle.com/technology/products/soa/soasuite/collateral/downloads.html#11g>

Installation Readiness Checklist

The following checklist will help guide you through the installation process of the application tier. The details for each step are presented in subsequent chapters.

Note: Please make sure that you follow the order listed below.

1. Create Group/User ID.
2. Install prerequisite software (see “Installing Prerequisite Third-Party Software” on page 2 for more information).
 - Oracle Client 11.2.0.3 (for connecting to Oracle database)
 - Java 1.6.0.65 or later
 - Hibernate 4.1.0FINAL
 - Geocoding and Map related data - Currently, Oracle Real-Time Scheduler only supports Navteq as the provider of maps and location data. For instructions on installing geocoding and map related data, please contact your specific Navteq vendor. The disk space required for installation is around 60 GB.
 - Oracle BPEL Process Manager 11g (optional)
3. Install application server.
 - Oracle WebLogic 11gR1 (10.3.6)
4. Install Oracle Application Development Framework (ADF) 11g (11.1.1.6.0) or Oracle JDeveloper 11g (11.1.1.5.0+). Ensure the version of Oracle ADF is compatible with the version of Weblogic installed.

Note: You can choose to install either Oracle Application Developer Framework (ADF) or Oracle JDeveloper. Oracle recommends that you install ADF instead of Oracle JDeveloper.

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0) is not certified on Windows Server 2012. The workaround only for Windows Server 2012 is to use Oracle JDeveloper instead of Oracle Application Developer Framework (ADF).

5. Verify that all software is installed.
6. Set up environment variables.
7. Install Oracle Utilities Application Framework.
8. Install Oracle Real-Time Scheduler.
9. Install MapViewer 11.1.1.7.3.
10. Deploy the Oracle Real-Time Scheduler application.
11. Perform Post installation tasks.

Chapter 5

Installing Oracle Real-Time Scheduler - Initial Installation

This chapter provides instructions for installing Oracle Real-Time Scheduler from scratch.

Note: The software components that are required for an initial installation are available for download from the Oracle Software Delivery Cloud.

This chapter includes information on the following:

- [Before You Install](#)
- [Initial Installation Procedure](#)
- [After the Installation](#)
- [Operating the Application](#)
- [Installing Service Packs and Patches](#)

Before You Install

Refer to My Oracle Support for up-to-date additional information on Oracle Real-Time Scheduler.

Initial Installation Procedure

The initial installation procedure consists of:

- [Database Component Installation](#)
- [Application Components Installation](#)

Database Component Installation

Installation of the database component of Oracle Real-Time Scheduler must be complete before you can proceed with the following sections. Refer to the section “**Initial Install**” of the Oracle Real-Time Scheduler *Database Administrator's Guide*, which provides instructions on installing the database component.

Application Components Installation

A successful installation consists of the following steps:

- [Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2](#)
- [Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.1.0](#)
- [Installing the Oracle Real-Time Scheduler v2.2.1.0](#)

Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2

This section describes how to install the application framework component, including:

- [Copying and Decompressing Install Media](#)
- [Setting Permissions for the cistab file in UNIX](#)
- [Preparing for the Installation](#)

Copying and Decompressing Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms. Download the installation package and proceed as follows:

1. Log in to the host server as the Oracle Utilities Application Framework administrator user ID. This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Framework application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.

Note: This directory must be located outside any current or other working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation may be deleted after a successful installation.

3. Copy the file FW-V4.2.0.2.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

```
cd <TEMPDIR>
jar -xvf FW-V4.2.0.2.0-MultiPlatform.jar
```


For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named FW.V4.2.0.2.0 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application.

Setting Permissions for the cistab file in UNIX

Every Oracle Utilities Application Framework environment installed on a server must be registered in the `/etc/cistab` file located on that server. On UNIX servers, generally only the root user ID has write permissions to the `/etc` directory. Since the installation process is run by the Oracle administrator user ID (`cissys`), this user ID may not be able to write to `/etc/cistab` table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the `<TEMPDIR>/FW.V4.2.0.2.0` directory named `cistab_<SPLENVIRON>.sh`. Run the generated script using the root account before continuing with the installation process. The script initializes the `cistab` file in `/etc` directory (if it is the first Oracle Utilities Framework application environment on the server) and registers a new environment.

The generated script also changes the owner of `/etc/cistab` file to the Oracle Utilities Framework administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Framework administrator user ID, you do not need to run the generated script with the root user ID. Instead the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of `/etc/cistab` entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you are planning to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

Preparing for the Installation

1. Log on as the administrator (default `cissys`).
2. Change directory to the `<TEMPDIR>/FW.V4.2.0.2.0` directory.
3. Set the `ORACLE_CLIENT_HOME` and `PATH` variables as Oracle Client Perl is required to run the installer.

UNIX:

```
export ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
export PERL_HOME=${ORACLE_CLIENT_HOME}/perl
export PATH=${PERL_HOME}/bin:$PATH
export PERL5LIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
    Installer Decompressed location/data/bin/perl>
export PERLLIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
    Installer Decompressed location/data/bin/perl>
export LD_LIBRARY_PATH=${ORACLE_CLIENT_HOME}/lib:$LD_LIBRARY_PATH
```

Windows:

```
set ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
set PATH=%PERL_HOME%\bin;%PATH%
```

4. Start the application installation utility by executing the appropriate script:

UNIX:

```
ksh ./install.sh
```

Windows:

```
install.cmd
```

5. The Oracle Utilities Application Framework specific menu appears.
6. Follow the messages and instructions that are produced by the application installation utility.
7. Select each menu item to configure the values. For detailed description of the values, refer to Appendix [Installation and Configuration Worksheets](#).
8. Below are the mandatory list of configurable items along with descriptions for a few items. Where you see <Mandatory>, enter values suitable to your environment. You can assign default values to the rest of the menu items.

```
*****
* Environment Installation Options *
*****
1. Third Party Software Configuration
   Oracle Client Home Directory: <Mandatory>
   Web Java Home Directory:      <Mandatory>
   Child JVM Home Directory:
   COBOL Home Directory:
   Hibernate JAR Directory: <Mandatory>
   ONS JAR Directory:
   Web Application Server Home Directory: <Mandatory>
   ADF Home Directory:
   OIM OAM Enabled Environment:

50. Environment Installation Options
    Environment Mount Point: <Mandatory> - Install Location
    Log Files Mount Point: <Mandatory> - ThreadPoolWorker Logs
                                Location
    Environment Name: <Mandatory>
    Web Application Server Type:                                     WLS
    Install Application Viewer Module:                             true
```

Each item in the above list should be configured for a successful install.

Choose option (1,50, <P> Process, <X> Exit):

9. Once you enter 'P' after entering mandatory input values in the above menu, the system populates another configuration menu.

```
*****
* Environment Configuration *
*****
1. Environment Description
   Environment Description:      <Mandatory>

2. Business Application Server Configuration
   Business Server Host:        <Mandatory> - Hostname on which
                                application being installed
   WebLogic Server Name:        myserver
   Business Server Application Name: SPLService
   MPL Admin Port Number:      <Mandatory> - Multipurpose
                                Listener Port
   MPL Automatic startup:      false

3. Web Application Server Configuration
   Web Server Host:            <Mandatory>
   Web Server Port Number:     <Mandatory>
   Web Context Root:           ouaf
```

```

WebLogic JNDI User ID:      <Mandatory>
WebLogic JNDI Password:    <Mandatory>
WebLogic Admin System User ID:  <Mandatory>
WebLogic Admin System Password: <Mandatory>
WebLogic Server Name:      myserver
Web Server Application Name:  SPLWeb
Application Admin User ID:   <Mandatory>
Application Admin Password: <Mandatory>
Expanded Directories:      false
Application Viewer Module:   true

```

4. Database Configuration

```

Application Server Database User ID: <Mandatory>
Application Server Database Password: <Mandatory>
MPL Database User ID: <Mandatory>
MPL Database Password: <Mandatory>
XAI Database User ID: <Mandatory>
XAI Database Password: <Mandatory>
Batch Database User ID: <Mandatory>
Batch Database Password: <Mandatory>
Database Name: <Mandatory>
Database Server: <Mandatory>
Database Port: <Mandatory>
ONS Server Configuration:
Database Override Connection String:
Oracle Client Character Set NLS_LANG:

```

5. General Configuration Options

```

Batch RMI Port: <Mandatory> - RMI
                  port for batch
Batch Mode: <Mandatory> -
             CLUSTERED or DISTRIBUTED
Coherence Cluster Name: <Mandatory> - Unique
                           name for batch
Coherence Cluster Address: <Mandatory> - Unique
                           multicast address
Coherence Cluster Port: <Mandatory> - Unique
                           port for batch cluster
Coherence Cluster Mode: <Mandatory> - prod

```

Each item in the above list should be configured for a successful install.

Choose option (1,2,3,4,5, <P> Process, <X> Exit):

10. When you are done with the parameter setup, proceed with the option P. The utility writes the configured parameters and their values into the configuration file.
11. Once the install has finished, the installation log location appears on the screen. If the log does not list any error messages, the installation of the application component of Oracle Utilities Application Framework is complete.

Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.1.0

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working application environment.
2. Copy the file 'ORS-v2.2.1.0.0-FW-PREREQ-Multiplatform.zip' in the delivered package to <TEMPDIR>.

If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

3. Upon extracting the zip file 'Application-Server-Multiplatform' sub-directory will be created.
4. Refer to the Readme.txt inside 'Application-Server-Multiplatform' to install Application related FW patch.

Installing the Oracle Real-Time Scheduler v2.2.1.0

This section describes how to install the application component of Oracle Real-Time Scheduler, including:

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working Oracle Real-Time Scheduler application environment.
2. Unzip 'Oracle Real-Time Scheduler v2.2.1.0 Multiplatform.zip' and copy the file ORS-V2.2.1.0.0-MultiPlatform.jar in the delivered package to <TEMPDIR>.

If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

3. Decompress the file using following command:

```
cd <TEMPDIR>
jar -xvf ORS-V2.2.1.0.0-MultiPlatform.jar
```

Note: For Windows installations, include the location of the JDK in your path before executing the jar command.

For both Unix and Windows platforms, a sub-directory named ORS.V2.2.1.0.0 is created.

4. Initialize the Oracle Real-Time Scheduler environment that you want to install the product into.

UNIX:

```
<SPLEBASE>/bin/splenvron.sh -e <SPLENVIRON>
```

Windows:

```
<SPLEBASE>\bin\splenvron.cmd -e <SPLENVIRON>
```

5. Stop the application server instance if running.
6. Change to the <TEMPDIR>/ORS.V2.2.1.0.0 directory.
7. Execute the following command:

Note: On UNIX, ensure that you have the proper execute permission on install.sh

UNIX:

```
ksh ./install.sh
```

Windows:

```
install.cmd
```

The Oracle Real-Time Scheduler Application specific menu opens.

8. Select the following menu items and enter mandatory fields.
Refer to the [Oracle Real-Time Scheduler Installation and Configuration Worksheets](#) for more information.

```
8. JMS Configuration
Context Factory: <Mandatory> Weblogic
WebLogic Server URL: <Mandatory> Weblogic
Weblogic System User ID: <Mandatory> Weblogic
Weblogic System Password: <Mandatory>
Time Out: <Mandatory>
```

9. ORS Environment Description
 - ORS Scheduler Map Files Location: <Mandatory>
 - Schedule Manager Port Number: <Mandatory>
 - Minimum Requests: <Mandatory>
 - Maximum Time (seconds) Booking Requests: <Mandatory>
 - Unique identifier for the instance of the JVM: <Mandatory>
 - Registry cleanse timing in seconds: <Mandatory>
 - Scheduler connection timeout in milliseconds: <Mandatory>
 - Scheduler maintenance cycle time in seconds: <Mandatory>
10. Geocode Data Source Configuration
 - JDBC URL for the Geocode database: <Mandatory>
 - Database User Name: <Mandatory>
 - Database Password: <Mandatory>
 - JNDI name for the Geocode datasource: <Mandatory>
11. Mapviewer Configuration
 - Deploy mapviewer locally on this instance: <Mandatory>
 - Location of mapviewer ear file: <Mandatory>
12. Security Configuration
 - Deploy only mobility web application: <Mandatory>
 - Allow Self Signed SSL Certificates: <Mandatory>

9. Choose the options for configuration and enter P to proceed with the installation.

10. Execute the following command:

UNIX:

```
cd <SPLEBASE>/runtime
ksh ./ORS_postinstall.sh
```

Windows:

```
cd %SPLEBASE%\runtime
ORS_postinstall.cmd
```

Note: On UNIX, ensure that you have the proper execute permission on ORS_postinstall.sh

Once the install has finished successfully, execute post installation steps as described in the following section, [Performing Post-Installation Tasks](#).

Performing Post-Installation Tasks

Run the Post-install Script:

1. Change directory.
 - cd <install_dir>/bin

where <install_dir> is the location where the Oracle Real-Time Scheduler application component is installed.

2. Initialize the environment by running the appropriate command:

UNIX:

```
./splenviron.sh -e <ENV NAME>
```

Windows:

```
splenviron.cmd -e <ENV NAME>
```

3. Run the post-installation script:

UNIX:

```
$cd $SPLEBASE/runtime
$ksh ./cdfDeploy.sh
```

Note: If you get permission errors while running this script, run the following command to set the permissions, then repeat the above step.

```
chmod 755 cdfDeploy.sh
```

Windows:

```
C:\> cd %SPLEBASE%\runtime  
C:\> cdfDeploy.cmd
```

Generate the Appviewer:

Generate the appviewer by following the steps below:

UNIX:

```
$cd $SPLEBASE/bin  
ksh ./genappvieweritems.sh
```

Windows:

```
C:\> cd %SPLEBASE%\bin  
C:\> genappvieweritems.cmd
```

After the Installation

After you complete the installation, verify the following:

1. Verify installation logs created under decompressed installer location for any errors.
2. Confirm installation logs do not contain any errors.
3. Confirm all the configurations are correct. Refer to Appendix [Installation and Configuration Worksheets](#) for details.
4. Confirm that the database is ready.
5. Generate appviewer.
6. Start the application server. For instructions, refer to Appendix [Common Maintenance Activities](#).
7. To operate the application, refer to the following section.

Operating the Application

At this point your installation and custom integration process is complete. Be sure to read the *Oracle Real-Time Scheduler Administration Guide* for more information on further configuring and operating the system.

Installing Service Packs and Patches

Periodically, Oracle Utilities releases a service pack of single fixes for its products. A service pack is an update to an existing release that includes solutions to known problems and other product enhancements. A service pack is not a replacement for an installation, but a pack consisting of a collection of changes and additions for it. The service pack may include changes to be applied to the application server, the database, or both. The service pack includes all files necessary for installing the collection of changes, including installation instructions.

Between services packs, Oracle Utilities releases patches to fix individual bugs. For information on installing patches, refer to knowledge base article ID 974985.1 on My Oracle Support.

Service packs and patches can be downloaded from My Oracle Support (<https://support.oracle.com/>).

Chapter 6

Installing Oracle Real-Time Scheduler - Demo Installation

This chapter provides instructions for installing Oracle Real-Time Scheduler for demo purpose.

Note: The software components that are required for an demo installation are available for download from the Oracle Software Delivery Cloud.

This chapter includes information on the following:

- [Before You Install](#)
- [Demo Installation Procedure](#)
- [After the Installation](#)
- [Operating the Application](#)
- [Installing Service Packs and Patches](#)

Before You Install

Refer to My Oracle Support for up-to-date additional information on Oracle Real-Time Scheduler.

Demo Installation Procedure

The initial installation procedure consists of:

- [Database Component Installation](#)
- [Application Components Installation](#)

Database Component Installation

Installation of the database component of Oracle Real-Time Scheduler must be complete before you can proceed with the following sections. Refer to the section “**Demo Install**” of the *Oracle Real-Time Scheduler Database Administrator's Guide*, which provides instructions on installing the database component.

Application Components Installation

A successful installation consists of the following steps:

- [Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2](#)
- [Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.1.0](#)
- [Installing the Oracle Real-Time Scheduler v2.2.1.0](#)

Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2

This section describes how to install the application framework component, including:

- [Copying and Decompressing Install Media](#)
- [Setting Permissions for the cistab file in UNIX](#)
- [Preparing for the Installation](#)

Copying and Decompressing Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms. Download the installation package and proceed as follows:

1. Log in to the host server as the Oracle Utilities Application Framework administrator user ID. This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Framework application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.

Note: This directory must be located outside any current or other working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation may be deleted after a successful installation.

3. Copy the file FW-V4.2.0.2.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

```
cd <TEMPDIR>
jar -xvf FW-V4.2.0.2.0-MultiPlatform.jar
```

For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named FW.V4.2.0.2.0 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application.

Setting Permissions for the cistab file in UNIX

Every Oracle Utilities Application Framework environment installed on a server must be registered in the `/etc/cistab` file located on that server. On UNIX servers, generally only the root user ID has write permissions to the `/etc` directory. Since the installation process is run by the Oracle administrator user ID (`cissys`), this user ID may not be able to write to `/etc/cistab` table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the `<TEMPDIR>/FW.V4.2.0.2.0` directory named `cistab_<SPLENVIRON>.sh`. Run the generated script using the root account before continuing with the installation process. The script initializes the `cistab` file in `/etc` directory (if it is the first Oracle Utilities Framework application environment on the server) and registers a new environment.

The generated script also changes the owner of `/etc/cistab` file to the Oracle Utilities Framework administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Framework administrator user ID, you do not need to run the generated script with the root user ID. Instead the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of `/etc/cistab` entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you are planning to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

Preparing for the Installation

1. Log on as the administrator (default `cissys`).
2. Change directory to the `<TEMPDIR>/FW.V4.2.0.2.0` directory.
3. Set the `ORACLE_CLIENT_HOME` and `PATH` variables as Oracle Client Perl is required to run the installer.

UNIX:

```
export ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
export PERL_HOME=${ORACLE_CLIENT_HOME}/perl
export PATH=${PERL_HOME}/bin:$PATH
export PERL5LIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
    Installer Decompressed location/data/bin/perl>
export PERLLIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
    Installer Decompressed location/data/bin/perl>
export LD_LIBRARY_PATH=${ORACLE_CLIENT_HOME}/lib:$LD_LIBRARY_PATH
```

Windows:

```
set ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
set PATH=%PERL_HOME%\bin;%PATH%
```

4. Start the application installation utility by executing the appropriate script:

UNIX:

```
ksh ./install.sh
```

Windows:

```
install.cmd
```

5. The Oracle Utilities Application Framework specific menu appears.
6. Follow the messages and instructions that are produced by the application installation utility.
7. Select each menu item to configure the values. For detailed description of the values, refer to Appendix [Installation and Configuration Worksheets](#).
8. Below are the mandatory list of configurable items along with descriptions for a few items. Where you see <Mandatory>, enter values suitable to your environment. You can assign default values to the rest of the menu items.

```
*****
* Environment Installation Options *
*****
1. Third Party Software Configuration
   Oracle Client Home Directory: <Mandatory>
   Web Java Home Directory:      <Mandatory>
   Child JVM Home Directory:
   COBOL Home Directory:
   Hibernate JAR Directory: <Mandatory>
   ONS JAR Directory:
   Web Application Server Home Directory: <Mandatory>
   ADF Home Directory:
   OIM OAM Enabled Environment:

50. Environment Installation Options
    Environment Mount Point: <Mandatory> - Install Location
    Log Files Mount Point: <Mandatory> - ThreadPoolWorker Logs
                                   Location
    Environment Name: <Mandatory>
    Web Application Server Type:                                     WLS
    Install Application Viewer Module:                             true
```

Each item in the above list should be configured for a successful install.

Choose option (1,50, <P> Process, <X> Exit):

9. Once you enter 'P' after entering mandatory input values in the above menu, the system populates another configuration menu.

```
*****
* Environment Configuration *
*****
1. Environment Description
   Environment Description:      <Mandatory>

2. Business Application Server Configuration
   Business Server Host:        <Mandatory> - Hostname on which
                                   application being installed
   WebLogic Server Name:       myserver
   Business Server Application Name: SPLService
   MPL Admin Port Number:      <Mandatory> - Multipurpose
                                   Listener Port
   MPL Automatic startup:      false

3. Web Application Server Configuration
   Web Server Host:            <Mandatory>
   Web Server Port Number:     <Mandatory>
   Web Context Root:           ouaf
```

```

WebLogic JNDI User ID:      <Mandatory>
WebLogic JNDI Password:    <Mandatory>
WebLogic Admin System User ID:  <Mandatory>
WebLogic Admin System Password: <Mandatory>
WebLogic Server Name:       myserver
Web Server Application Name:  SPLWeb
Application Admin User ID:   <Mandatory>
Application Admin Password:  <Mandatory>
Expanded Directories:       false
Application Viewer Module:    true

```

4. Database Configuration

```

Application Server Database User ID:  <Mandatory>
Application Server Database Password: <Mandatory>
MPL Database User ID:                 <Mandatory>
MPL Database Password:                 <Mandatory>
XAI Database User ID:                 <Mandatory>
XAI Database Password:                 <Mandatory>
Batch Database User ID:                <Mandatory>
Batch Database Password:               <Mandatory>
Database Name:                        <Mandatory>
Database Server:                      <Mandatory>
Database Port:                        <Mandatory>
ONS Server Configuration:
Database Override Connection String:
Oracle Client Character Set NLS_LANG:

```

5. General Configuration Options

```

Batch RMI Port:                    <Mandatory> - RMI
                                   port for batch
Batch Mode:                        <Mandatory> -
                                   CLUSTERED or DISTRIBUTED
Coherence Cluster Name:            <Mandatory> - Unique
                                   name for batch
Coherence Cluster Address:         <Mandatory> - Unique
                                   multicast address
Coherence Cluster Port:            <Mandatory> - Unique
                                   port for batch cluster
Coherence Cluster Mode:            <Mandatory> - prod

```

Each item in the above list should be configured for a successful install.

Choose option (1,2,3,4,5, <P> Process, <X> Exit):

10. When you are done with the parameter setup, proceed with the option P. The utility writes the configured parameters and their values into the configuration file.
11. Once the install has finished, the installation log location appears on the screen. If the log does not list any error messages, the installation of the application component of Oracle Utilities Application Framework is complete.

Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.1.0

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working application environment.
2. Copy the file 'ORS-v2.2.1.0.0-FW-PREREQ-Multiplatform.zip' in the delivered package to <TEMPDIR>.

If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

3. Upon extracting the zip file 'Application-Server-Multiplatform' sub-directory will be created.
4. Refer to the Readme.txt inside 'Application-Server-Multiplatform' to install Application related FW patch.

Installing the Oracle Real-Time Scheduler v2.2.1.0

This section describes how to install the application component of Oracle Real-Time Scheduler, including:

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working Oracle Real-Time Scheduler application environment.
2. Unzip 'Oracle Real-Time Scheduler v2.2.1.0 Multiplatform.zip' and copy the file ORS-V2.2.1.0.0-MultiPlatform.jar in the delivered package to <TEMPDIR>.

If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

3. Decompress the file using following command:

```
cd <TEMPDIR>
jar -xvf ORS-V2.2.1.0.0-MultiPlatform.jar
```

Note: For Windows installations, include the location of the JDK in your path before executing the jar command.

For both Unix and Windows platforms, a sub-directory named ORS.V2.2.1.0.0 is created.

4. Initialize the Oracle Real-Time Scheduler environment that you want to install the product into.

UNIX:

```
<SPLEBASE>/bin/splenvron.sh -e <SPLENVIRON>
```

Windows:

```
<SPLEBASE>\bin\splenvron.cmd -e <SPLENVIRON>
```

5. Stop the application server instance if running.
6. Change to the <TEMPDIR>/ORS.V2.2.1.0.0 directory.
7. Execute the following command:

Note: On UNIX, ensure that you have the proper execute permission on install.sh

UNIX:

```
ksh ./install.sh
```

Windows:

```
install.cmd
```

The Oracle Real-Time Scheduler Application specific menu opens.

8. Select the following menu items and enter mandatory fields. Refer to the [Oracle Real-Time Scheduler Installation and Configuration Worksheets](#) for more information.

```
8. JMS Configuration
Context Factory: <Mandatory> Weblogic
WebLogic Server URL: <Mandatory> Weblogic
Weblogic System User ID: <Mandatory> Weblogic
Weblogic System Password: <Mandatory>
Time Out: <Mandatory>
```

9. ORS Environment Description
 - ORS Scheduler Map Files Location: <Mandatory>
 - Schedule Manager Port Number: <Mandatory>
 - Minimum Requests: <Mandatory>
 - Maximum Time (seconds) Booking Requests: <Mandatory>
 - Unique identifier for the instance of the JVM: <Mandatory>
 - Registry cleanse timing in seconds: <Mandatory>
 - Scheduler connection timeout in milliseconds: <Mandatory>
 - Scheduler maintenance cycle time in seconds: <Mandatory>
10. Geocode Data Source Configuration
 - JDBC URL for the Geocode database: <Mandatory>
 - Database User Name: <Mandatory>
 - Database Password: <Mandatory>
 - JNDI name for the Geocode datasource: <Mandatory>
11. Mapviewer Configuration
 - Deploy mapviewer locally on this instance: <Mandatory>
 - Location of mapviewer ear file: <Mandatory>
12. Security Configuration
 - Deploy only mobility web application: <Mandatory>
 - Allow Self Signed SSL Certificates: <Mandatory>

9. Choose the options for configuration and enter P to proceed with the installation.
10. Execute the following command:

UNIX:

```
cd <SPLEBASE>/runtime
ksh ./ORS_postinstall.sh
```

Windows:

```
cd %SPLEBASE%\runtime
ORS_postinstall.cmd
```

Note: On UNIX, ensure that you have the proper execute permission on ORS_postinstall.sh

Once the install has finished successfully, execute post installation steps as described in the following section, [Performing Post-Installation Tasks](#).

Performing Post-Installation Tasks**Run the post-install script**

1. Change directory.
 - cd <install_dir>/bin

where <install_dir> is the location where the Oracle Real-Time Scheduler application component is installed.

2. Initialize the environment by running the appropriate command:

UNIX:

```
./splenviron.sh -e <ENV NAME>
```

Windows:

```
splenviron.cmd -e <ENV NAME>
```

3. Run the post-installation script:

UNIX:

```
$cd $SPLEBASE/runtime
$ksh ./cdfDeploy.sh
```

Note: If you get permission errors while running this script, run the following command to set the permissions, then repeat the above step.

```
chmod 755 cdfDeploy.sh
```

Windows:

```
C:\> cd %SPLEBASE%\runtime  
C:\> cdfDeploy.cmd
```

Generate the appviewer

1. Generate the appviewer by following the steps below:

UNIX:

```
$cd $SPLEBASE/bin  
ksh ./genappvieweritems.sh
```

Windows:

```
C:\> cd %SPLEBASE%\bin  
C:\> genappvieweritems.cmd
```

After the Installation

After you complete the installation, verify the following:

1. Verify installation logs created under decompressed installer location for any errors.
2. Confirm installation logs do not contain any errors.
3. Confirm all the configurations are correct. Refer to Appendix [Installation and Configuration Worksheets](#) for details.
4. Confirm that the database is ready.
5. Generate appviewer.
6. Start the application server. For instructions, refer to Appendix [Common Maintenance Activities](#).
7. To operate the application, refer to the following section.

Operating the Application

At this point your installation and custom integration process is complete. Be sure to read the *Oracle Real-Time Scheduler Administration Guide* for more information on further configuring and operating the system.

Installing Service Packs and Patches

Periodically, Oracle Utilities releases a service pack of single fixes for its products. A service pack is an update to an existing release that includes solutions to known problems and other product enhancements. A service pack is not a replacement for an installation, but a pack consisting of a collection of changes and additions for it. The service pack may include changes to be applied to the application server, the database, or both. The service pack includes all files necessary for installing the collection of changes, including installation instructions.

Between services packs, Oracle Utilities releases patches to fix individual bugs. For information on installing patches, refer to knowledge base article ID 974985.1 on My Oracle Support.

Service packs and patches can be downloaded from My Oracle Support (<https://support.oracle.com/>)

Chapter 7

Additional Tasks

This chapter describes tasks that should be completed after installing Oracle Real-Time Scheduler including:

- [Configuring MapViewer](#)
- [Oracle Location Services \(eLocation\)](#)
- [Configuring the Environment for Oracle BPEL Server](#)
- [Configuring the Scheduler](#)
- [Configuring Business Service SDK](#)
- [WebLogic Production Server Considerations](#)
- [Building Javadoc Indexes](#)
- [Configuring the Environment for Batch Processing](#)
- [Customizing Configuration Files](#)
- [Customizing the Logo](#)
- [Generating the Application Viewer](#)
- [Installation Verification Checklist](#)
- [Accessing the Application](#)

Configuring MapViewer

This section describes how to configure a MapViewer data source.

Before you can configure a MapViewer data source you must:

- Install Oracle Fusion Middleware MapViewer 11.1.1.7.3.
- Create and configure the database.

To Configure a MapViewer Data Source

1. Go to the MapViewer Application:

Example: `http://<host>:<port>/mapviewer`

Where `<host>` is the host name or IP address of the system where MapViewer is deployed and `<port>` is the port of the WebLogic instance. If MapViewer is deployed on the same WebLogic instance then this is same as the application port.

2. Click the **Admin** button to log in as an administrator to MapViewer.
3. Click **Manage Map Viewer**, then **Configuration**.
4. Modify `mapViewerConfig.xml` using the Config text area.
 - a. Provide the data source details for the `cisadm` and `NAVTEQ_UTIL` data sources. The following code sample contains example data sources. Change the properties according to your data sources:

```
<!--(Sample datasource configuration)
  <map_data_source name="mvdemo"
    jdbc_host="db1.my_corp.com"
    jdbc_sid="orcl"
    jdbc_port="1521"
    jdbc_user="scott"
    jdbc_password="!tiger"
    jdbc_mode="thin"
    number_of_mappers="3"
    allow_jdbc_theme_based_foi="false"
  />
```

- b. If the secure protocol (HTTPS) is enabled for the MapViewer URL, add the following to the **Map Image Settings** section of `mapViewerConfig.xml`:

```
<save_images_at file_prefix="omsmmap"
  url="https:// <host>:<port>/mapviewer/images"
  path="../../images"
  life="0"
  recycle_interval="480"
/>
```

Where `<host>` is the host name or IP address of the system where MapViewer is deployed and `<port>` is the port of the WebLogic instance.

5. Click **Save and Restart**.
6. To refresh the list of data sources, click **Manage Map Viewer**, then **Data sources**.
7. To confirm that the configuration is correct, click **Manage Map Tile Layers**.

Configuring MapViewer Security

When MapViewer is deployed on the same WebLogic instance as the application, follow these steps to configure MapViewer to share the security credentials of the application.

1. Add the following entry in the weblogic.xml file under <MAPVIEWER_EAR_DIR>/web.war/WEB-INF:

```
<security-role-assignment>
  <role-name>cisusers</role-name>
  <principal-name>cisusers</principal-name>
</security-role-assignment>

<session-descriptor>
  <cookie-path>/mapviewer</cookie-path>
</session-descriptor>
```

2. Add the following entry in the web.xml file under <MAPVIEWER_EAR_DIR>/web.war/WEB-INF:

```
<security-role>
  <description>MapViewer users</description>
  <role-name>cisusers</role-name>
</security-role>
```

Oracle Location Services (eLocation)

This section describes how to configure and deploy Oracle Location Services (eLocation) for use by Oracle Real-Time Scheduler. This is required if your implementation chooses to use eLocation for routing data instead of Oracle Real-Time Scheduler.

The installation of eLocation requires the following components

- eLocation Dispatcher Servlet (elocation.ear)
- Oracle RouteServer (routeserver.ear)
- Oracle Geocoder (geocoder.ear)

To Configure eLocation

1. Download the elocation.ear file.

To download the latest elocation.ear, log on to My Oracle Support at support.oracle.com and download Patch 13446793, "SPATIAL elocation for Mobile Workforce Management Release 12."

Oracle RouteServer and Oracle Geocoder are included with the Oracle 11g database in the following directory: ORACLE_HOME\md\jlib

2. When eLocation is deployed on the same WebLogic instance as the application, follow these steps to configure eLocation to share the security credentials of the application.

- a. Add the following entry in the weblogic.xml file, located under <ELOCATION_EAR_DIR>/web.war/WEB-INF:

```
<security-role-assignment>
  <role-name>cisusers</role-name>
  <principal-name>cisusers</principal-name>
</security-role-assignment>
```

- b. Add the following entry in the web.xml file, located under <ELOCATION_EAR_DIR>/web.war/ WEB-INF:

```
<security-role>
```

```
<description>SPL users</description>
<role-name>cisusers</role-name>
</security-role>
```

3. Deploy and configure the routing engine and the geocoding service as described in the Oracle Spatial Developer's Guide 11g.
4. Deploy the eLocation EAR manually using the WebLogic console. Open the eLocation URL at: `http://<environment>:<port>/elocation/admin.jsp`

The application asks for login credentials because the `web.xml` and `weblogic.xml` files have changed. Once the login is successful, you will see the Oracle eLocation Administration page.

5. To modify the Mapper Cluster, click **Edit** on the component URL. Specify the following value:

```
<http://<environment>:<port>/mapviewer/omsserver>
```

Make sure that MapViewer is also deployed in the environment.

6. To modify the Geocoder Cluster, click **Edit** on the component URL. Specify the following value:

```
< http://elocation.oracle.com/geocoder/gcserver>
```

7. To modify the Router Cluster, click **Edit** on the component URL. Specify the following value:

```
http://elocation.oracle.com/routeserver/servlet/RouteServerServlet
```

8. Click **Apply Changes**.

Configuring the Environment for Oracle BPEL Server

Oracle BPEL Process Manager is optional software that can be used by Oracle Real-Time Scheduler for sending SMS messages. Oracle Real-Time Scheduler can be configured to send SMS via different third party gateway/SMS providers. The ability to send SMS using the Oracle BPEL Server is already provided in the base application

This section describes how to configure the Oracle Real-Time Scheduler to interact with Oracle BPEL Server.

Before configuring Oracle Real-Time Scheduler to interact with BPEL Server you must:

- Install Oracle BPEL Server.
- Configure Oracle Real-Time Scheduler with a process that receives phone numbers and messages deployed on the BPEL server.

Oracle Real-Time Scheduler uses the algorithm type `F1-SMSSEND` to connect to the Oracle BPEL server.

The following information will be required to set up the application to work with the BPEL server:

Configuring the Scheduler

Note: From Oracle Real-Time Scheduler v2.2.0 onwards, the location of these scheduler log files can no longer be configured from the online application. The scheduler log files are now written in the same location as the TPW and the batch files, under `$SPLOUTPUT`.

This section describes how to configure a scheduler as a standalone application on the TPW JVM.

After installing Oracle Real-Time Scheduler, please verify that the below step1 and step 2 changes are available. If they are not available, follow the below steps:

1. If you enabled the WebLogic Console Port Number, then the WebLogic console is accessed by https admin channel by default. Specify “t3s://<host>:<admin channel port>” as the WebLogic Server URL in menu item 8, JMS Configurations. Otherwise, specify “t3://<host>:<web server port>”.

See appendix [Application Framework Installation and Configuration Worksheets](#) for more information.

2. Configure trust keystore as WebLogic Additional Stop Argument using menu item 52 Advanced Web Application Configuration. See appendix [Application Framework Installation and Configuration Worksheets](#) for more information.
3. Run the initialSetup script.

UNIX:

```
$ cd $$PLEBASE/bin
$ ksh ./initialSetup.sh
```

Windows:

```
cd %SPLEBASE%\bin
initialSetup.cmd
```

4. Run the standalone batch script. For example

UNIX:

```
$ cd $$PLEBASE/bin
$ nohup batchscheduler.sh <Node_ID> > /tmp/batchscheduler.log 2>&1
&
```

Windows:

```
cd %SPLEBASE%\bin
batchscheduler.cmd <Node_ID>
```

Notes:

- The application domain node ID must be unique value across the environment. This value is used for a scheduler running from Threadpoolworker.
- The scheduler should be disabled from the online application. The batch scheduler program invokes Threadpoolworker so there is no need to start Threadpoolworker separately.
- The NodeID is located in the threadpoolworker logs under \$\$PLOUTPUT. You can locate this value by searching for “NODEID”.
- To locate the NodeID in the threadpoolworker process, search for the string “-Dspl.mwm.scheduler.nodeId=”

You will get multicast issues in an AIX environment if you start the batch scheduler and the multicast listener is not enabled. The workaround for this is to enable a unicast listener. See the Oracle Real-Time Scheduler *Batch Server Administration Guide* for more details.

To Enable the Unicast Listener

1. Copy the file \$\$PLEBASE/splapp/standalone/config/tangosol-coherence-override.xml to tangosol-coherence-override.xml.org
2. Remove the following code in the tangosol-coherence-override.xml file:

```
<multicast-listener>
-----
```

```
-----
</multicast-listener>
```

3. Add the following code after the </member-identity> tag in the tangosol-coherence-override.xml file:


```
<unicast-listener>
<well-known-addresses>
<socket-address id="0">
<address system-property=
"tangosol.coherence.wka">COHERENCE_CLUSTER_HOSTNAME</address>
<port system-property=
"tangosol.coherence.wka.port">COHERENCE_CLUSTER_PORT</port>
</socket-address>
</well-known-addresses>
<address system-property=
"tangosol.coherence.localhost">COHERENCE_CLUSTER_HOSTNAME
</address>
<port system-property=
"tangosol.coherence.localport">COHERENCE_CLUSTER_PORT</port>
<port-auto-adjust system-property=
"tangosol.coherence.localport.adjust">true</port-auto-adjust>
</unicast-listener>
```
4. Select the menu item 5 and General Configuration Options. Use the completed General Configuration Options Worksheet to complete this step. See appendix [Application Framework Installation and Configuration Worksheets](#) for more information.
5. Run initialSetup and start the batch scheduler. See the Appendix titled “Common Maintenance Activities” for additional information on common batch scheduler tasks.

Configuring the Batch Scheduler for Different Servers

This section describes how to configure the batch scheduler to point to a different application server, or “target server”. The target server has to be installed following the same steps as described for installing Oracle Real-Time Scheduler. These steps can also be followed to run the batch scheduler(s) from a different server than the target server. In the following steps, substitute the appropriate values for the environment.

To Configure the Scheduler to Point to a Different Target Server

1. Install Oracle Real-Time Scheduler application.
2. Stop the environment if running.

UNIX:

```
$SPLEBASE/bin/spl.sh stop
```

Windows:

```
%SPLEBASE%\bin\spl.cmd stop
```

3. In the application menu, select the menu item 8 to configure JMS settings. Enter the menu items for the target server. Use the completed JMS Configuration Worksheet to assist you with this step. See appendix [Application Framework Installation and Configuration Worksheets](#) for more information for more information.
4. Select the menu item 9 to specify ORS environment description and enter the menu items for the target server. Use the completed ORS Environment Description Worksheet to complete this step. See appendix [Application Framework Installation and Configuration Worksheets](#) for more information for more information.

5. Enter the WebLogic Console Port Number for the target server using menu item 52 Advanced Web Application Configuration. See appendix [Application Framework Installation and Configuration Worksheets](#) for more information for more information.
6. Run the initialSetup script:
UNIX:

```
$SPLEBASE/initialSetup.sh
```


Windows:

```
%SPLEBASE%\initialSetup.cmd
```
7. Run the standalone batch scheduler script, which now points to the target server. See Appendix [Common Maintenance Activities](#) for details on how to start and stop the batch scheduler.

Configuring Business Service SDK

For details about configuring business service SDK, see the *Configuration Guide*.

WebLogic Production Server Considerations

By default, WebLogic Server is configured with two keystores, to be used for development only. These keystores should not be used in a production environment.

Configuring Identity and Trust

Private keys, digital certificates, and trusted certificate authority certificates establish and verify identity and trust in the WebLogic Server environment. WebLogic Server is configured with a default identity keystore `DemoIdentity.jks` and a default trust keystore `DemoTrust.jks`. In addition, WebLogic Server trusts the certificate authorities in the `cacerts` file in the JDK. This default keystore configuration is appropriate for testing and development purposes. However, these keystores should not be used in a production environment.

To configure identity and trust for a server:

1. Obtain digital certificates, private keys, and trusted CA certificates from the CertGen utility, Sun Microsystem's keytool utility, or a reputable vendor such as Entrust or Verisign. You can also use the digital certificates, private keys, and trusted CA certificates provided by the WebLogic Server kit. The demonstration digital certificates, private keys, and trusted CA certificates should be used in a development environment only.
2. Store the private keys, digital certificates, and trusted CA certificates. Private keys and trusted CA certificates are stored in a keystore.
3. Configure the identity and trust keystores for a WebLogic Server instance on the Configuration: Keystores page.

By default, WebLogic Server is configured with two keystores, to be used for development only.

- `DemoIdentity.jks`: Contains a demonstration private key for WebLogic Server. This keystore establishes an identity for WebLogic Server.
- `DemoTrust.jks`: Contains a list of certificate authorities trusted by WebLogic Server. This keystore establishes trust for WebLogic Server.

These keystores are located in the `WL_HOME\server\lib` directory and the `JAVA_HOME\jre\lib\security` directory. For testing and development purposes, the keystore configuration is complete. Use the steps in this section to configure identity and trust keystores for production use.

Refer to the WebLogic documentation to configure identity and trust keystores for production use (Secure servers and resources > Configure identity and trust/Set up SSL)

Note: Depending on your choice of implementation you may need to change some configuration files. These files are managed by templates and will be overwritten if the procedures documented in “Customizing Configuration Files” are not followed.

Building Javadoc Indexes

The following script rebuilds the Javadocs indexes in the application viewer java module. This is necessary after customer modifications (CM) have been applied to an environment. You need to run this script only if the customer modification includes Java code.)

Windows:

```
%SPLEBASE%\bin\buildJavadocsIndex.cmd
```

UNIX:

```
ksh $SPLEBASE/bin/buildJavadocsIndex.sh
```


Configuring the Environment for Batch Processing

See the Oracle Real-Time Scheduler *Batch Server Administration Guide* for information on configuring the environment for batch processing.

Customizing Configuration Files

You may wish to make customer modifications to various configuration files. To do so, you should locate the configuration file you want to customize and edit it manually.

Configuration files are generated from delivered templates in the Oracle Utilities installation and are populated by values entered by the installation utility during the configuration process. In future upgrades of Oracle Utilities application software versions, some templates may be changed to reflect new software version requirements. In this case, the upgrade process will back up your customized configuration file and will regenerate a configuration file based on a new template. You will need to review the new configuration file and apply your customized changes back if still applicable for the new version.

For configuration files that are located in a web application (for example, web.xml, hibernate.properties), of the web application during installation process, you will not be able to edit the configuration files directly.

You will need to follow the procedure:

- Locate the configuration file you want to customize in the directory `$$PLEBASE/etc/conf`.
- Apply your changes.
- Update application war file with the latest changes by executing the following command:

Unix:

```
$$PLEBASE/bin/initialSetup.sh
```

Windows:

```
%$PLEBASE%\bin\initialSetup.cmd
```

Customizing the Logo

To replace the Oracle Utilities logo on the main menu with another image, put the new image `<customer_logo_file>.gif` file into the directory `$$PLEBASE/etc/conf/root/cm` and create a new “External” Navigation Key called `CM_logoImage`. To do that, run the Oracle Utilities application from the browser with the parameters: `http://<hostname>:<port>/cis.jsp?utilities=true&tools=true`. From the Admin menu, select Navigation Key. Add the above Navigation Key with its corresponding URL Override path. The syntax for the URL path is:

Windows:

```
http://<host name>:<port>/<Web Context>/cm/<customer_logo_file>.gif
```

UNIX:

```
http://<host name>:<port>/<Web Context>/cm/<customer_logo_file>.gif
```

The root directory may be deployed in war file format for runtime environment (SPLApp.war). Use provided utilities to incorporate your cm directory into SPLApp.war file.

Generating the Application Viewer

You may extend application viewer capabilities within an environment by generating additional items. The additional items that can be generated include algorithm type and related algorithm information, maintenance object information and data dictionary information.

To Generate the Additional Items In the Application Viewer:

1. Shut down the environment.
2. Initialize a command shell:

The scripts that are provided with the system need to be run from a shell prompt on the machine that you installed the application on. Before such scripts can be run the shell must be “initialized” by running the splenviron script provided with the system.

Unix:

You will need to logon to your UNIX box as the Oracle Utilities Administrator (default cissys) and open a shell prompt. In the following example you should replace the variables

\$SPLEBASE with the Full directory name that you installed the application into

and

\$SPLENVIRON with the name you gave to the environment at installation time.

To initialize the environment enter:

```
$SPLEBASE/bin/splenviron.sh -e $SPLENVIRON
```

For example:

```
/ouaf/TEST_ENVIRON1/bin/splenviron.sh -e TEST_ENVIRON1
```

Windows:

The command window should be opened on the Windows server that you installed the application on.

In the below example you should replace the following variables:

- **%SPLEBASE%** : The Full directory name that you installed the application into
- **%SPLENVIRON%**: The name you gave to the environment at installation time.

To initialize the environment type the following in your command prompt:

```
%SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%
```

For example:

```
D:\ouaf\TEST_ENVIRON1\bin\splenviron.cmd -e TEST_ENVIRON1
```

3. Execute the following script to generate all information.

UNIX:

```
ksh $SPLEBASE/bin/genappvieweritems.sh
```

Windows:

```
%SPLEBASE%\bin\genappvieweritems.cmd
```

4. Restart your application

Installation Verification Checklist

After you complete the installation, verify the following:

1. Verify installation logs created under decompressed installer location for any errors.
2. Confirm installation logs do not contain any errors.
3. Confirm all the configurations are correct. Refer to Installation and Configuration Worksheets for details.
4. Confirm that the database is ready.
5. Start the application server. For instructions, refer to Appendix [Common Maintenance Activities](#).
6. Verify Application deployment status.
 - Login to Weblogic Console.
 - Click on **Deployment** link.
 - Verify that the following application deployments are Active
 - SPLService
 - SPLWeb
 - SPLAdf
 - Mapviewer
7. Verify the Data Source Configuration.
8. Confirm that the map file (mal) exists in the required location.
9. Ensure that ulimit is set (applicable for non-Windows platforms).
10. Ensure that the geocode algorithm is set.
11. To operate the application, refer to the next section.

Accessing the Application

1. Start up the environment by running the following command:

UNIX:

```
spl.sh start
```

Windows:

```
spl.cmd start
```

2. Follow the messages on the screen along with the logs in \$SPLSYSTEMLOGS directory to ensure that the environment was started successfully.
3. If the startup failed, identify the problem by reviewing the log files. Resolve any issues before attempting to restart the environment.
4. Once the application is up and running (can be viewed from logs file) then try to access the application via below URL

```
http://<host name>:<port name>/<WebContext>
```

Appendix A

Installation and Configuration Worksheets

Application Framework Installation and Configuration Worksheets

Third Party Software Configuration

```
*****
* Environment Installation Options *
*****
1. Third Party Software Configuration
   Oracle Client Home Directory:
   Web Java Home Directory:
   Child JVM Home Directory:
   COBOL Home Directory:
   Hibernate JAR Directory:
   ONS JAR Directory:
   Database Home Directory:
   Web Application Server Home Directory:
   ADF Home Directory:
   OIM OAM Enabled Environment:
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_H OME***	The home directory of the Oracle Client. The application will use the Perl included under this Oracle Client. Example Location: /oracle/client/product/11.2.0.3	
Web Java Home Directory	JAVA_HOME***	Java home that will be used by the web application server. Example Location: /ouaf/java/jdk1.6.0_65	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Child JVM Home Directory	CHILD_JVM_JAVA_HOME	Java home that will be used by the child java process that handles COBOL related requests. Example Location: /ouaf/java/jdk1.6.0_65	
COBOL Home Directory	COBDIR	COBOL installation location directory. Example Location: /opt/SPLcobAS51WP6	
Hibernate JAR Directory	HIBERNATE_JAR_DIR***	Location on the disk where the hibernate410FINAL.jar is installed.	
*ONS JAR Directory	ONS_JAR_DIR	Location on the disk where the ons-11.2.0.3.jar file is installed. **Required for Oracle RAC installation. See the Server Administration Guide for more information.	
Database Home Directory	DATABASE_HOME** *	Location on the disk where database client is installed for your particular installation. Example Location for Oracle Database: /oracle/client/product/11.2.0.3 Note: This value will be the same as the previously entered for Oracle.	
Web Application Server Home Directory	WEB_SERVER_HOME***	Location on the disk where the application server is installed. Example Location: WebLogic: /ouaf/middleware/wlserver_10.3 To validate the home directory, check if the following jar files exist in the appropriate path: \$WEB_SERVER_HOME/server/lib/weblogic.jar %WEB_SERVER_HOME%\server\lib\weblogic.jar	
* ADF Home Directory	ADF_HOME***	Location on the disk where ADF is installed. Example Location: /ouaf/jdev11_1_1_6	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
OIM OAM Enabled Environment	OPEN_SPML_ENABLED_ENV	<p>Denotes if an environment will be integrating with Oracle Identity Manager for user propagation.</p> <p>Valid values:</p> <p> true</p> <p> false</p> <p>Defaulted value: false</p>	

* Denotes optional Menu Options that may be required for the product installation and variables.

** In order to activate the RAC FCF, the application needs the external ons.jar file, version 11.2.0.2. This ons.jar is located under the Oracle Database Software 11.2.0.3, at the following path:

`$ORACLE_HOME/opmn/lib/ons.jar`

The ons.jar should be copied to the Application Server. During the OUAF installation the relevant option should be populated with the folder location of the ons.jar.

Environment Installation Options

50. Environment Installation Options

Environment Mount Point:
 Log Files Mount Point:
 Environment Name:
 Database Type:
 Web Application Server Type:
 Install Application Viewer Module:

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Mount Point	<SPLDIR>***	<p>The mount point into which the application is installed. For example: /ouaf for UNIX and C:\ouaf for Windows.</p> <p>This mount point MUST exist and the administrator user ID MUST be able to write to this directory. (This is the user ID that is created specifically to administer the environments; the default is cissys). The installation sets permissions on all subdirectories installed under this directory.</p> <p>See <SPLENVIRON> below for more information on how this mount point is used.</p>	
Log File Mount Point	<SPLDIROUT>***	<p>A mount point that will contain any application output or application logs. Example value is /ouaf/sploutput for UNIX installation or C:\ouaf\sploutput for Windows.</p> <p>This mount point MUST exist and the administrator user ID MUST be able to write to this directory. (This is the user ID that is created specifically to administer the environments; the default is cissys).</p> <p>For each environment initialized, the application logs will be written to the directory <SPLDIROUT>/<SPLENVIRON></p> <p>Note: Later in the installation the splenvron.sh (splenvron.cmd) script will set the \$SPLOUTPUT (%SPLOUTPUT%) environment variable to point to <SPLDIROUT>/<SPLENVIRON></p>	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Name	<SPLENVIRON>***	<p>A descriptive name to be used as both a directory name under the mount point <SPLDIR> and an environment descriptor. This value typically identifies the purpose of the environment. For example, DEV01 or CONV.</p> <p>On installation a directory <SPLDIR>/<SPLENVIRON> is created, under which the Oracle Utilities Application Framework and Oracle Real-Time Scheduler software resides.</p> <p>When multiple environments are set up on the machine you will typically have directories such as: /ouaf/DEV01/.... /ouaf/CONV/....</p> <p>Each of these contains a complete version of the Oracle Utilities Application Framework and Oracle Real-Time Scheduler.</p> <p>Note: Later in the installation process, the splenviron.sh (splenviron.cmd) script will set \$SPLEBASE (%SPLEBASE%) environment variable to point to <SPLDIR>/<SPLENVIRON></p>	
Database Type	<CMPDB>***	<p>Type of a database to connect an environment to.</p> <p>Valid values: oracle: Oracle</p> <p>Defaulted value: oracle</p> <p>Note: Not all database types are supported on all platforms; refer to the Supported Platforms section for details.</p>	oracle
Web Application Server Type	<SPLWAS>***	<p>A web application server for the environment to be used. The following value must be selected:</p> <p>Valid values: WLS: WebLogic WAS: WebSphere WASND: WebSphere ND</p> <p>Note: Not all web application servers are supported on all platforms; refer to Supported Platforms section for details.</p>	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Installation Application Viewer Module	<WEB_ISAPPVIEWER> ***	<p data-bbox="777 247 1219 401">Denotes if the Application Viewer Web Module will be installed in the environment. When this value is set to false the application viewer will not be accessible in the environment.</p> <p data-bbox="777 438 1219 592">Valid values: true: Application Viewer module will be installed. false: Application Viewer module will not be installed.</p> <p data-bbox="777 630 995 657">Defaulted value: true</p> <p data-bbox="777 695 1203 814">Note: When the value of false is selected, the Application Viewer will only be installed at a later date by a complete reinstall of the application.</p>	

Environment Description

1. Environment Description

Environment Description:

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Description	DESC**	This is a free form text field to describe the purpose of the environment.	

WebLogic Business Application Server Configuration

The WebLogic parameters below and in the worksheet are for a WebLogic installation.

2. Business Application Server Configuration

```

Business Server Host:                <machine_name>
WebLogic Server Name:                myserver
Business Server Application Name:    SPLService
MPL Admin Port Number:
MPL Automatic startup:                false

```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Business Server Host	BSN_WLHOST***	The host name on which business application server resides. Default value: <current server name>	
WebLogic Server Name	BSN_WLS_SVRNAME ***	The name of the WebLogic server where the business application resides. Default value: myserver Note: If there is not a previously created WebLogic server, take the default value of "myserver".	
Business Server Application Name	BSN_APP***	The name of the business application server. Default value: SPLService	
MPL Admin Port number	MPLADMINPORT	The port number for the Multi Purpose Listener (MPL) Admin Server. Example value: 6502	
MPL Automatic Startup	MPLSTART	Automatically starts the MPL Listener whenever environment starts. Default value: false	

WebLogic Web Application Server Configuration

The WebLogic parameters below and in the worksheet are for a WebLogic installation.

3. Web Application Server Configuration

```

Web Server Host: <machine_name>
Web Server Port Number:
Web Context Root:
WebLogic JNDI User ID:
WebLogic JNDI Password:
WebLogic Admin System User ID:
WebLogic Admin System Password:
WebLogic Server Name: myserver
Web Server Application Name: SPLWeb
Application Admin User ID:
Application Admin Password:
Expanded Directories: true
Application Viewer Module: true

```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Web Server Host	WEB_WLHOST***	The host name on which the web application server resides. Default value: <current server name>	
Web Server Port Number	WEB_WLPORT***	A unique port number within the system that will be assigned to the HTTP port. This is the port number that is used as a part of the client URL request to connect to the host. Example value: 6500	
Web Context Root	WEB_CONTEXT_ROOT***	A context root name that allows customers to run multiple instances of web application on the same server. Default value: ouaf	
WebLogic JNDI User ID	WEB_WLSYSUSER***	The user ID the application uses to connect to the EJB component through JNDI. This is the EJB container user ID. Note: The required value for an initial installation is "system". This is a security value.	
WebLogic JNDI Password	WEB_WLSYSPASS***	The password the application uses to connect to the EJB component through JNDI This is a security value.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
WebLogic Admin System User ID	WLS_WEB_WLSYSUSER***	The user ID to log in to the Oracle WebLogic console and to administer Oracle WebLogic. The Oracle WebLogic startup and stop script also utilizes this user ID. This is a security value.	
WebLogic Admin System Password	WLS_WEB_WLSYSPASS	The password to login to Oracle WebLogic console and to administer Oracle WebLogic. The Oracle WebLogic startup and stop script also utilize this password. This is a security value.	
WebLogic Server Name	WEB_WLS_SVRNAME	The name of the WebLogic server where the web application resides. Default value: myserver .	
Web Server Application Name	WEB_APP	The name of the web application server. Default value: SPLWeb Note: For an initial installation, use the default value of "SPLWeb".	
Application Admin User ID	WEB_SPLUSER***	This is the default user ID to login to the application through the browser. Example value: SYSUSER Note: The required value for an initial installation is "SYSUSER". This value is also used in communication within the XAI application. This is a security value.	
Application Admin Userid Password	WEB_SPLPASS***	This is the password of the application admin user. Example value: sysuser00 Note: The required value for an initial installation is "sysuser00". This value will be saved in encrypted format This is a Security Value.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Expanded Directories	WEB_ISEXPANDED* **	<p>When the value is “true” the web application will be deployed in exploded directory format (no WAR files).</p> <p>When the value is “false”, the web application will be deployed in ear file format.</p> <p>Valid values: true: Environment expanded (no WAR files) false: Environment with WAR/EAR files</p> <p>Default value: false</p>	
Application Viewer Module	WEB_ISAPPVIEWER* **	<p>When the value is “true” the application viewer will be deployed to the web server. When the value is “false”, the application viewer will not be deployed to the web Server.</p> <p>Note: With either value the application viewer module will still be managed by the upgrade process.</p> <p>Note: When this value is set to false from the initial install menu you will not be able to change this value to true to re-enable the application viewer.</p> <p>Valid values: true: The application viewer module will be deployed to the web server false: The application viewer module will not be deployed to the web server</p> <p>Default value: true</p>	

Database Configuration

4. Database Configuration

Web Application Database User ID:
 Web Application Database Password:
 MPL Database User ID:
 MPL Database Password:
 XAI Database User ID:
 XAI Database Password:
 Batch Database User ID:
 Batch Database Password:
 Database Name
 Database Server:
 Database Port:
 ONS Server Configuration:
 Database Override Connection String:
 Oracle Client Character Set NLS_LANG: AMERICAN_AMERICA.AL32UTF8

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Web Application Database User ID	DBUSER***	<p>The database user ID that has been configured on the database for the web application server connection.</p> <p>This is a security value.</p>	
Web Application Database Password	DBPASS***	<p>The database password that has been configured on the database for the web application connection.</p> <p>Note: This value will be saved in encrypted format.</p> <p>This is a security value.</p>	
MPL Database User ID	MPL_DBUSER***	<p>The database user ID that has been configured on the database for the MPL server connection.</p> <p>This is a security value.</p>	
MPL Database Password	MPL_DBPASS***	<p>The database password that has been configured on the database for the MPL server connection.</p> <p>Note: This value will be saved in encrypted format.</p> <p>This is a security value.</p>	
XAI Database User ID	XAI_DBUSER***	<p>The database user ID that has been configured on the database for the XAI server connection.</p> <p>This is a security value.</p>	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
XAI Database Password	XAI_DBPASS***	The database password that has been configured on the database for the XAI server connection. Note: This value will be saved in encrypted format. This is a security value.	
Batch Database User ID	BATCH_DBUSER***	The database user ID that has been configured on the database for the batch connection. This is a security value.	
Batch Database Password	BATCH_DBPASS***	The database password that has been configured on the database for the batch connection. Note: This value will be saved in encrypted format. This is a security value.	
Database Name	DBNAME***	The name of the database instance that the application will be connecting to.	
Database Server	DBSERVER***	Host name of the server where database resides.	
Database Port	DBPORT***	Database port number on the database server used for connecting to the database	
ONS Server Configuration	ONSCONFIG	ONS Server Configuration is required for Oracle RAC FCF. See the Server Administration Guide for more information. This is an optional value.	
Database Override Connection String	DB_OVERRIDE_CONNECTION	This connection string can be used to override the database information entered above for RAC installation. Set this string to override the standard database connection string, as entered above. See the Server Administration Guide for more information. This is an optional value.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Oracle Client Character Set NLS_LANG	NLS_LANG***	The Oracle Database Character Set. Select the Language and Territory that are in use in your country. Default value: AMERICAN_AMERICA.AL32UTF8	

General Configuration Options

Note: See the Oracle Real-Time Scheduler *Batch Server Administration Guide* for additional details on this configuration.

```

5. General Configuration Options
   Batch RMI Port:
   Batch Mode:                CLUSTERED
   Coherence Cluster Name:
   Coherence Cluster Address:
   Coherence Cluster Port:
   Coherence Cluster Mode:    dev

```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Batch RMI Port	BATCH_RMI_PORT** *	Unique port used by the Batch RMI	
Batch Mode	BATCH_MODE***	Valid values: CLUSTERED or DISTRIBUTED Default value: CLUSTERED Note: CLUSTERED is currently the only supported mode for production environments.	
Coherence Cluster Name	COHERENCE_CLUSTER_NAME***	Unique name for the batch CLUSTER Note: Value is required when batch mode is CLUSTERED.	
Coherence Cluster Address	COHERENCE_CLUSTER_ADDRESS***	Unique multicast address. Note: Value is required when batch mode is CLUSTERED.	
Coherence Cluster Port	COHERENCE_CLUSTER_PORT***	Unique port for the batch CLUSTER Note: Value is required when batch mode is CLUSTERED.	
Coherence Cluster Mode	COHERENCE_CLUSTER_MODE***	Valid values: dev (Development) prod (Production) Default value: dev	

Advanced Menu Options

The advanced menu options are not available during installation. These options can be accessed after installation using the following commands:

Unix:

```
$SPLEBASE/bin/configureEnv.sh -a
```

Windows

```
%SPLEBASE%\bin\configureEnv.cmd -a
```

Advanced Environment Miscellaneous Configuration

```
50. Advanced Environment Miscellaneous Configuration
    Online JVM Batch Server Enabled:           false
    Online JVM Batch Number of Threads:       5
    Online JVM Batch Scheduler Daemon Enabled: false
    JMX Enablement System User ID:
    JMX Enablement System Password:
    RMI Port number for JMX Business:
    RMI Port number for JMX Web:
    GIS Service Running on the same Web Server: true
    GIS Service URL:
    GIS WebLogic System User ID:
    GIS WebLogic System Password:
    Online Display Software Home:
```

Menu Option	Name Used in Documentation	Usage	Customer Value Install
WebSphere Deployment Manager Host Name	WASND_DMGR_HOST	WebSphere Deployment Manager Host name, this value is used for WebSphere ND, when connecting to the WebSphere Deployment Manager. Note: This value will only appear for WebSphere ND.	
Online JVM Batch Server Enabled	BATCHENABLED	When starting a web application server JVM, this property can be set to “true” to allow the on-line application server to also act as a batch worker in the grid. Default value: false Note: This functionality should only be used in low volume environments.	

Menu Option	Name Used in Documentation	Usage	Customer Value Install
Online JVM Batch Number of Threads	BATCHTHREADS	The maximum number of batch processing threads to be executed within a worker JVM when no explicit Distributed Thread Pool is specified. The “DEFAULT” distributed thread pool is used by the batch-scheduling daemon when it initiates processing on batch jobs (typically added via the online system) where no thread pool is specified).	
		Default value: 5	
		Note: This will be only used and activated when BATCHENABLED is set to true.	
Online JVM Batch Scheduler Daemon Enabled	BATCHDAEMON	In a distributed batch environment, this property can be set to “true” to allow a worker JVM to host the batch scheduling daemon. The daemon accepts online batch submissions requests and automatically submits the work for them.	
		Valid values: true, false	
		Default value: false	
		Note: This will be only used and activated when BATCHENABLED is set to true.	
JMX Enablement System User ID	BSN_JMX_SYSUSER	Example value: user This value is optional.	
JMX Enablement System Password	BSN_JMX_SYSPASS	Example value: admin Note: This value will be saved in encrypted format. This value is optional.	
RMI Port number for JMX Business	BSN_JMX_RMI_PORT_PERFORMANCE	JMX Port for business application server monitoring. This needs to be set to an available port number on the machine. This value is optional.	

Menu Option	Name Used in Documentation	Usage	Customer Value Install
RMI Port number for JMX Web	WEB_JMX_RMI_PORT_PERFORMANCE	JMX Port for web application server monitoring This needs to be an available port number for the environment running on the machine. This value is optional.	
GIS Service Running on the same Web Server	GIS	Geographical information (GEOCODING) - GIS Service running on the same web application server Valid values: true, false This value is optional.	
GIS Service URL	GIS_URL	This is the URL of the external web server. Note: This value will be only be used when GIS is set to true. This value is optional.	
GIS WebLogic System User ID	GIS_WLSYSUSER	GIS WebLogic System User ID Note: This value will be only be used when GIS is set to true. This value is optional.	
GIS WebLogic System Password	GIS_WLSYSPASS	GIS WebLogic System Password. Note: This value will be only be used when GIS is set to true. This value is optional.	
Online Display Software Home	ONLINE_DISPLAY_HOME	The location of the Online Display Software installation directory. This value is optional.	

Advanced Environment Memory Configuration

```

51. Advanced Environment Memory Configuration
    JVM Child Memory Allocation:                512
    JVM Child Additional Options:
    Web Application Java Initial Heap Size:      1024
    Web Application Java Max Heap Size:         1024
    Web Application Java Max Perm Size:
    Web Application Additional Options:
    Ant Min Heap Size:                          200
    Ant Max Heap Size:                          800
    Ant Additional Options:
    Thread Pool Worker Java Min Heap Size:      512
    Thread Pool Worker Java Max Heap Size:      1024
    Thread Pool Worker Java Max Perm Size:      192
    Thread Pool Worker Additional Options:
    Additional Runtime Classpath:
    Release Cobol Thread Memory Options:
-Dspl.runtime.cobol.remote.releaseThreadMemoryAfterEachCall=...

```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
JVM Child Memory Allocation	JVMMEMORYARG	Heap size for the JVM Child. Default value: 512	
JVM Child Additional Options	JVM_ADDITIONAL_OPT	Additional JVM options that are passed to the Child JVM. Note: For WebLogic installation only.	
Web Application Java Initial Heap Size	WEB_MEMORY_OPT_MIN***	Initial heap size for the application server. Default value: 1024 Note: For WebLogic installation only. Recommended value is 2048.	
Web Application Java Max Heap Size	WEB_MEMORY_OPT_MAX***	Maximum heap size for the application server. Default value: 1024 Note: For WebLogic installation only. Recommended value is 2048.	
Web Application Java Max Perm Size	WEB_MEMORY_OPT_MAXPERMSIZE***	Maximum Perm Size for the application server. Default value: 700MB (Linux, Solaris) 700MB (Windows) Note: For WebLogic installation only.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Web Application Additional Options	WEB_ADDITIONAL_OPT***	<p>Additional options that will be passed in to the web application server JVM.</p> <p>Note: For WebLogic installation only.</p> <p>Replace the value of SPLEBASE with the actual value.</p> <p>UNIX:</p> <pre>-Xrs -XX:+ShowMessageBoxOnError - XX:+UseGCOverheadLimit - Doracle.security.jps.config=SPLEBASE/ splapp/config/jps-config.xml - Ddomain.home=SPLEBASE/splapp</pre> <p>Windows:</p> <pre>-Xrs -XX:+ShowMessageBoxOnError - XX:+UseGCOverheadLimit - Doracle.security.jps.config=SPLEBASE/ splapp/config/jps-config.xml - Ddomain.home=SPLEBASE/splapp</pre> <p>AIX:</p> <pre>-Xrs -XX:+ShowMessageBoxOnError - XX:+UseGCOverheadLimit - Doracle.security.jps.config=SPLEBASE/ splapp/config/jps-config.xml - Ddomain.home=SPLEBASE/splapp - Djava.awt.headless=true</pre>	
Ant Min Heap Size	ANT_OPT_MIN	<p>Minimum Heap Size passed to ANT JVM.</p> <p>Default value: 200</p>	
Ant Max Heap Size	ANT_OPT_MAX	<p>Maximum Heap Size passed to ANT JVM.</p> <p>Default value: 800</p>	
Ant Additional Options	ANT_ADDITIONAL_OPT	<p>Additional options that are passed into the ANT JVM.</p>	
Thread Pool Worker Java Min Heap Size	BATCH_MEMORY_OPT_MIN	<p>Minimum heap size passed to the Thread Pool Worker.</p> <p>Default value: 512 Recommended value is 1024.</p>	
Thread Pool Worker Java Max Heap Size	BATCH_MEMORY_OPT_MAX	<p>Maximum heap size passed to the Thread Pool Worker.</p> <p>Default value: 1024 Recommended value is 2048.</p>	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Thread Pool Worker Java Max Perm Size	BATCH_MEMORY_O PT_MAXPERMSIZE	Maximum perm size passed to the Thread Pool Worker Default value: 768	
Thread Pool Worker Additional Options	BATCH_MEMORY_A DDITIONAL_OPT	Additional Memory Options passed into the Thread Pool Worker. This is an optional free form field.	
Additional Runtime Classpath	ADDITIONAL_RUNT IME_CLASSPATH***	Additional Classpath Options passed in when starting the WebLogic JVM Note: For WebLogic installation only. Replace the value of SPLEBASE with the actual value. Unix: SPLEBASE/splapp/standalone/lib/ commons-cli-1.1.jar:SPLEBASE/splapp/ standalone/lib/log4j- 1.2.15.jar:SPLEBASE/splapp/standalone/ lib/ jakarta-regexp-1.5.jar Windows: SPLEBASE/splapp/standalone/lib/ commons-cli-1.1.jar;SPLEBASE/splapp/ standalone/lib/log4j-1.2.15.jar; SPLEBASE/splapp/standalone/lib/ jakarta-regexp-1.5.jar	
Release Cobol Thread Memory Options	REL_CBL_THREAD_ MEM	Allow for child JVMs to be optionally configured to release thread-bound memory when each thread is returned to its thread pool. This will increase the number of memory allocations and memory free calls performed by the Microfocus runtime. It will also lower the amount of C-heap memory consumed by child JVMs. Valid values: true, false Default value: false	

Advanced Web Application Configuration

52. Advanced Web Application Configuration

```

WebLogic SSL Port Number: Weblogic
Console Port Number: Weblogic
Additional Stop Arguments: Batch
Cluster URL:
Strip HTML Comments: false
Authentication Login Page Type: FORM
Application Viewer Form Login Page: loginPage.jsp
Application Viewer Form Login Error Page:formloginPage.jsp
Help Form Login Page: loginPage.jsp: /loginPage.jsp
Help Form Login Error Page: /formLoginError.jsp
Web Form Login Page: /loginPage.jsp
Web Form Login Error Page: /formLoginError.jsp
Web Security Role: cisusers
Web Principal Name: cisusers
Application Viewer Security Role: cisusers
Application Viewer Principal Name: cisusers
This is a development environment: false
Preload All Pages on Startup: false
Maximum Age of a Cache Entry for Text: 28800
Maximum Age of a Cache Entry for Images: 28800
JSP Recompile Interval (s): 43200

```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
WebLogic SSL Port Number:	WEB_WLSSPORT	<p>The port number assigned to WebLogic Secure Sockets connection. This is the port number that is used for Secure Sockets connecting to the WebLogic server.</p> <p>The Secure Sockets implementation is disabled in the default configuration.</p> <p>For Production additional actions are required. Do NOT run Production with Demo certificates Refer to the WLS installation guide - Configuring Identity and Trust When this value is populated http will be disabled.</p> <p>Example value: 6501</p> <p>Note: For WebLogic installation only. This value is optional. If you enable the SSL port, then the https port is enabled and http port is disabled by default.</p>	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
WebLogic Console Port Number	WLS_ADMIN_PORT	<p>The port number assigned to WebLogic Console connection. This is the port number that is used for Secure Sockets connecting to the WebLogic Console server.</p> <p>Note: For WebLogic installation only.</p> <p>This value is optional.</p>	
Batch Cluster URL	WEB_BATCH_CLUSTER_URL	<p>Example:</p> <pre>service:jmx:rmi:///jndi/rmi:// [host]:[TPW JMX port]/oracle/ouaf/ batchConnector</pre>	
WebLogic Additional Stop Arguments	ADDITIONAL_STOP_ARGS_WEBLOGIC***	<p>WebLogic Additional Stop Arguments</p> <p>This value is required when running the WebLogic Console Port Number and the Application using SSL.</p> <p>Example values:</p> <pre>-Dweblogic.security.TrustKeyStore= DemoTrust -Dweblogic.security.TrustKeystoreType= CustomTrust</pre> <p>Note: For Production additional actions are required. Do NOT run Production with Demo certificates</p> <p>Refer to the WLS installation guide - Configuring Identity and Trust</p> <p>Note: For WebLogic installation only. This is an optional value.</p>	
StripHTMLComments: false	STRIP_HTML_COMMENTS	<p>Stripping HTML (and JavaScript) comments will increase the security of the system.</p> <p>Default value: false</p> <p>Valid values: true, false</p>	
Authentication Login Page Type	WEB_WLAUTHMETHOD	<p>Specifies which authentication mode should be used. To switch off OUAF Login Page enter: BASIC</p> <p>Valid values: FORM, BASIC</p> <p>Default value: FORM</p>	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Application Viewer Form Login Page	WEB_APPVIEWER_FORM_LOGIN_PAGE	Specify the jsp file used to login into the application. Default value: /loginPage.jsp	
Application Viewer Form Login Error	WEB_APPVIEWER_FORM_LOGIN_ERROR_PAGE	Specify the jsp file used to login into the application. Default value: / formLoginError.jsp	
Help Form Login Page	WEB_HELP_FORM_LOGIN_PAGE	Specify the jsp file used to login into the application. Default value: /loginPage.jsp	
Help Form Login Error Page	WEB_HELP_FORM_LOGIN_ERROR_PAGE	Specify the jsp file used to login into the application. Default value: / formLoginError.jsp	
Web Form Login Page	WEB_FORM_LOGIN_PAGE	Specify the jsp file used to login into the application. Default value: /loginPage.jsp	
Web Form Login Error Page	WEB_FORM_LOGIN_ERROR_PAGE	Specify the jsp file used when there is an error when logging into the application. Default value: /formLoginError.jsp	
Web Security Role	WEB_PRINCIPAL_NAME	Specify the name of the security role. Default value: cisusers	
Web Principal Name	WEB_PRINCIPAL_NAME	Specify the name of a principal that is defined in the security realm. Default value: cisusers	
Application Viewer Security Role	WEB_APPVIEWER_ROLE_NAME	Specify the name of the security role.	
Application Viewer Principal Name	WEB_APPVIEWER_PRINCIPAL_NAME	Specify the name of the security name.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
This is a development environment	WEB_ISDEVELOPMENT	<p>If the value is “true”, the web application may be used for application development, which will trigger certain generation processes. If the value is “false” the environment will be used as a runtime environment.</p> <p>When you choose “true” (development environment) the startup preload pages will be disabled, and the application security will be less strict. This value also controls the amount of logging information written to the application log files.</p> <p>Valid values: true, false</p> <p>Default value: false</p>	
Preload All Pages on Startup	WEB_PRELOADALL	<p>This controls if the pages should be pre-loaded during the startup of the application or not.</p> <p>Valid values: true, false</p> <p>Default value: false</p>	
Maximum Age of a Cache Entry for Text	WEB_MAXAGE	Default value: 28800	
Maximum Age of a Cache Entry for Images	WEB_MAXAGEI	Default value: 28800	
JSP Recompile Interval (s)	WEB_wlpageCheckSec onds	Default value: 43200	

Advanced Web Application Configuration

53. OIM Configuration Settings

```

SPML SOAP Trace Setting:                false
SPML IDM Schema Name:                   F1-IDMUser
SPML OIM Name Space:                    http://xmlns.oracle.com/OIM/provisioning
SPML OIM Enclosing Element:             SOAPElement

```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
SPML SOAP Trace Setting	OIM_SPML_SOAP_D EBUG_SETTING	Name of Oracle Identity Manager library for debug Default value: false Valid values: true, false	
SPML IDM Schema Name	OIM_SPML_UBER_S CHEMA_NAME	Name of Oracle Identity Manager library for schema Default value: F1-IDMUser	
SPML OIM Name Space	OIM_SPML_NAME_S PACE	Default Namespace for Oracle Identity Manager integration Default value: http://xmlns.oracle.com/OIM/provisioning	
SPML OIM Enclosing Element	OIM_SPML_SOAP_EL EMENT	Default top level SOAP Element name for Oracle Identity Manager integration Default value: SOAPElement	

Oracle Real-Time Scheduler Installation and Configuration Worksheets

During the installation and configuration of the application you will need to provide a variety of system values. These worksheets will assist you in providing that information. No Customer Install Value fields should be left blank.

Note: Some web application server information will not be available until the software installation steps have been completed as described in the previous chapter dealing with installing application server pre-requisite software.

JMS Configuration

8. JMS Configuration

```

Context Factory:                weblogic.jndi.WLInitialContextFactory
WebLogic Server URL:
Weblogic System User ID:
Weblogic System Password:
Time Out:                        120000

```

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Context Factory	CONTEXTFACTORY**	JNDI Name attribute field when the Connection Factory object is created. When the Connection Factory object is loaded, JNDI provides a path to the object. Default: weblogic.jndi.WLInitialContextFactory	
WebLogic Server URL	URL***	Specify weblogic server URL in below format: t3://<host>:<web server port no> NOTE: This is the port number that is used as a part of the client URL request to connect to the host. If you enable the WebLogic console port number using the Advanced Web Application Configuration menu, then specify WebLogic server URL in the following format: t3s://<host>:<weblogic console port number> Otherwise: t3://<host>:<web server port no>	
Weblogic System User ID	WLS_USERID***	User ID to login to Admin WebLogic console. Default user ID: system	
Weblogic System Password	WLS_PASSWORD***	On the configuration step of Oracle Real-Time Scheduler install process you have to provide the same password given during Oracle Utilities Application Framework installation. This should only be done if you have changed the password on an existing system following the Oracle WebLogic instructions.	
Time Out	TIMEOUT***	JMS Configuration Timeout, in milliseconds. Default:120000	

ORS Environment Description

9. ORS Environment Description

ORS Scheduler Map Files Location:

Schedule Manager Port Number:

Minimum Requests: 1

Maximum Time (seconds) Booking Requests: 5

Unique identifier for
the instance of the JVM:

Registry cleanse timing in seconds: 900

Scheduler connection timeout in milliseconds 300000

Geocode Data Source Configuration

10. Geocode Data Source Configuration
 JDBC URL for the
 Geocode database:
 Database User Name:
 Database Password:
 JNDI name for the
 Geocode datasource:

Menu Option	Name used in this Documentation	Usage	Customer Install Value
JDBC URL for Geocode Database	DBURL_GEOCODE* **	Geocode database information details. For example: jdbc:oracle:thin:@localhost:1521:GEODB	
Database User Name	DBUSER_GEOCODE ***	Geocode database user ID.	
Database Password	DBPASS_GEOCODE* **	Geocode database password.	
JNDI name for the Geocode datasource	JNDI_GEOCODE***	JNDI name for accessing the database. For example: GEOSAMPLE	

Mapviewer Configuration

11. Mapviewer Configuration
 Deploy mapviewer locally on this instance: true
 Location of mapviewer ear file:

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Deploy mapviewer locally on this instance	MAPVIEWER_ISLOC AL***	Set this value to true for deploying mapviewer on the same WebLogic instance. Default: true	
Location of mapviewer ear file	MAPVIEWER_EAR** *	This needs to point to the location of the exploded mapviewer ear directory in case mapviewer is deployed locally on the same Weblogic instance. For example: /ouaf/mapviewer/ mapviewer.ear	

Security Configuration

12. Security Configuration

Deploy only mobility web application: false
 Allow self signed SSL certificates: false

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Deploy only mobility web application	MOBILITY_APP_ON LY***	Set this value to true to deploy only the mobility web application. This option can be used to expose just the mobility web application to the internet while the rest of the application runs inside a secured environment. Default: true	
Allow Self Signed SSL Certificates	ALLOW_SELFSIGNED_SSL***	Set this value to true to allow self signed SSL certificates. Default: false	

Note: *** denotes mandatory field options that are required for the product installation.

Appendix B

Installation Menu Functionality Overview

The main configuration menu is structured so that related variables and/or options are grouped together and are associated by a menu item number. To access a particular group of variables and options, enter the menu item number associated with that group. Each option within that group is displayed in turn on the screen, along with a prompt so that you can type the desired value for the option, if it is not the same as the default or current value.

When performing the initial installation you need to go through all menu options. The menu options may have a default value, a list of valid values and a validation check.

On each option prompt you can keep the current value by simply leaving the input line empty. In order to erase a variable value you need to enter one dot (“.”). The leading spaces will be trimmed out on each values entered.

Note: When working with the menu you will see the following:

- **Valid Values: [ALFANUM].** This indicates you will need to enter an alphanumeric value in the prompt.
- **Valid Values: [NUM].** This indicates you will need to enter an numeric value in the prompt.

When all options are set, type <P> at the main menu prompt option. This will save the option values selected throughout the configuration.

During this processing the global variables are validated and the configuration file <SPLEBASE>/etc/ENVIRON.INI is created or updated. This file contains all the variables inputted and calculated. These are needed by the next part of the installation process.

To exit the configuration utility without saving any of the values entered, type <X> and 'Enter'

Installation Menu Functionality Details

The Environment Installation Utility requires that Oracle Client Home is set in the path for the user performing the installation.

Prior to running the installation utility you will need to review the supported platforms document to ensure you have all of the Third Party software installed.

In this menu if the variables are set prior to execution, that value will be defaulted by the installation utility when performing the installation.

When the installation has been completed successfully, the values will be written to an ENVIRON.INI file. When splenviron.sh / cmd is executed, it will read from the ENVIRON.INI file to set the environment variables.

In the worksheets there are three different types of values given:

-
- Default Values are the values that will be defaulted when running the installation utility.
 - Security Values denote values that should be changed when in production.
 - Example Values are values that can be used for a default installation.

Note: The production environment should not be run with default values. See the *Server Administration Guide* specific to this product, for additional information about configuring these values.

When you enter passwords you will not see the password characters on the screen because they are entered in silent mode. Passwords are encrypted when the values are entered.

Install the Oracle Client software specified in the section **Supported Platforms** prior to running any of the installation utilities.

The following prompt will appear when executing the installation utility:

```
Enter Oracle Client Home Directory (<ENTER> quit):
```

Note: If the environmental variable ORACLE_CLIENT_HOME is set, the install script will validate the variable. If it passes the validation you will not be prompted for it. This is needed in order to run Perl installation utilities.

Encryption Methods

When the application server choice is Oracle WebLogic, the Oracle Utilities Application Framework installation uses the WebLogic API to encrypt the User ID and password that perform admin functions for the WebLogic application servers. Please refer to the WebLogic documentation for further information about the encryption.

The Oracle Utilities Application Framework installation also uses industry standard cryptography to encrypt passwords that are prompted within the installation.

In each case these password are entered in the command line but the inputted values are not reflected on the screen when performing the installation.

Appendix C

Application Framework Prerequisite Patches

Oracle Utilities Application Framework patches must be installed prior to installing Oracle Real-Time Scheduler 2.2.1.0. The patches listed below are available as a convenience rollup, ORS-v2.2.1.0.0-FW-PREREQ-Multiplatform.zip, which is included in the downloaded Media Pack. Please refer to the instructions contained inside the rollup directory for steps to install the patches.

11067376	12617593	12655477	12659026	13590951
14031557	14041244	14060897	14192814	14240578
14319206	14521962	14524888	14527006	14527400
14539076	14544366	14544452	14545944	14559104
14560564	14565634	14565651	14579412	14581708
14592799	14594616	14600735	14602866	14609627
14614586	14621732	14626695	14631396	14644644
14664647	14671706	14676277	14698961	14700423
14708140	14708436	14729592	14730885	14736454
14736785	14744330	14745556	14770392	14772030
14775075	14789571	14797345	14840823	15841356
15858191	15873943	15877611	15880329	15905379
15992222	16167603	16186722	16190087	16212989
16215864	16219683	16303599	16316995	16318143
16343977	16374017	16385299	16396059	16396573
16398499	16398679	16418659	16425774	16437301
16440688	16440733	16448289	16449617	16461061
16472132	16476077	16480050	16480191	16482296
16487106	16487403	16490438	16495223	16497621
16504198	16504293	16520616	16530304	16535383
16538157	16545152	16546995	16547650	16552932
16554947	16555312	16568048	16579180	16580225

11067376	12617593	12655477	12659026	13590951
16581770	16586472	16592440	16603628	16616715
16617700	16635023	16659790	16664523	16668983
16670760	16671538	16672791	16675764	16675844
16675996	16676399	16677131	16679063	16679656
16689329	16689704	16694153	16702800	16708885
16717970	16726511	16727925	16736533	16743893
16758539	16759653	16762892	16768046	16777821
16787349	16787374	16796398	16802088	16806989
16816282	16838338	16844187	16850247	16850309
16850688	16856170	16858291	16864647	16874883
16881183	16904379	16908277	16908713	16914402
16917344	16923725	16925436	16925841	16928582
16931039	16931822	16935190	16937425	16939783
16950639	16951883	16956686	16956950	16985929
16986814	16988199	16989121	16999320	16999381
17010423	17022658	17029908	17042684	17049686
17055049	17061689	17067655	17076211	17154339
17160605	17165578	17165623	17171626	17174332
17179383	17180889	17204179	17211890	17214853
17221519	17232848	17242602	17244396	17244868
17252644	17258929	17273482	17273787	17278843
17279812	17285833	17287164	17290592	17294881
17296906	17302337	17302917	17305257	17314586
17316663	17331193	17335666	17335688	17336166
17336286	17338595	17341218	17342450	17344235
17348986	17355244	17365200	17368315	17369164
17369474	17376564	17377813	17384099	17404820
17408028	17414002	17418262	17420015	17432034
17432895	17433997	17434604	17437263	17438161
17441910	17445631	17450267	17450419	17458194
17464596	17465183	17468220	17470117	17471956
17472596	17476261	17478243	17478927	17488821
17489370	17505391	17510169	17516857	17517777

11067376	12617593	12655477	12659026	13590951
17517869	17517924	17533662	17534392	17535672
17538095	17555647	17560947	17562179	17562184
17570794	17570797	17572833	17575909	17583089
17584157	17584161	17589610	17591437	17592316
17596015	17597598	17597773	17600131	17609265
17611099	17615392	17616051	17618354	17649461
17651139	17694507	17717722	17736967	17743032
17750844	17750857	17754375	17782943	17787461
17794062	17797353	17801211	17802274	17821535
17821540	17827765	17830939	17843874	17844287
17849576	17891219	17899486	17910758	17930543
17948308	17950954	17952946	17971113	17973498
17980168	17992633	17998187	17998487	18017320
18017508	18019745	18033305	18037182	18049320
18051717	18055168	18056717	18062613	18078205
18083939	18109222	18112287	18115752	18117209
18130703	18132851	18136611	18139433	18141665
18144536	18147812	18164113	18186632	18198530
18204962	18220265	18221507	18223615	18225471
18233168	18233184	18242229	18253154	18253693
18259634	18270274	18277216	18287159	18288104
18289765	18291614	18291643	18300703	18323364
18323555	18330463	18331092	18331603	18334251
18335807	18337995	18340470	18346736	18347676
18351753	18362779	18364208	18365321	18375959
18376516	18377981	18378042	18383825	18386558
18394093	18399934	18399979	18406240	18406654
18411368	18412922	18413143	18413339	18417428
18422248	18429782	18443811	18446673	18454203
18454805	18466506	18471976	18473816	18473934
18476044	18483566	18495142	18508446	18509871
18515432	18516332	18521727	18528939	18530421
18534676	18553396	18562125	18593305	18597480

11067376	12617593	12655477	12659026	13590951
18598989	18602288	18651827	18658819	18664077
18669481	18669516	18676588	18679958	18691074
18713952	18727281	18736173	18771468	18788618
18794326	18794468	18800877	18812569	18868029
18880050	18894494	18910899	18957549	18958681
19021458	19050588	19051079	19057193	19074072
19077517	19130798	19136986	19159969	19307435
19478493	19491339	19624059	19648633	19662689
19690698	19725816	19791036	19812148	19826819
19851778	20002374	20019375		

Appendix D

Oracle Real-Time Scheduler Fixes

The following table lists the Oracle Real-Time Scheduler fixes included in this release.

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20303348	DELIVERY ITEMS ARE GETTING DUPLICATED ON MDT- SPECIFIC SCENARIO
20296192	BREAK AND NPT NOT MOVING FROM QUEUED FOR DISPATCH TO CANCELLED STATUS
20291492	UNABLE TO SAVE CHANGES MADE ON DISPATCHER SHIFT DETAILS
20291448	DISPATCHER UNABLE TO LOG OFF (SPECIFIC TO AIX AND SOLARIS ENVIRONMENTS)
20290988	TO-DO'S ARE NOT GETTING GENERATED FOR THE DEPLOYMENT.(OUT OF SYNC)
20285879	NPT AND BREAK TASKS START SCREEN IS NOT DISPLAYED ON MDT
20282935	OUTBOUND APIS FOR QUEUE LENGTH AND SERVER ERRORS
20282632	STRESS TEST: TASK LIST REFRESH ISSUE WHEN MORE THAN 100 ACTIVITIES ARE SYNCED
20279592	ERROR IN BUILDING IPA FILE, NO MATCHING PROVISIONING PROFILES FOUND
20273507	NOT ABLE TO START THE SHIFT WHEN A VEHICLE WHICH IS HAVING PROCEDURE IS REMOVED
20273294	IPA FILES NAMING CONVENTION ISSUE
20271084	TASK LIST SORTING IS NOT CORRECT
20268271	BLANK SCREEN DISPLAYED IF CREW CLICKS ON PROCEDURES LINK IN SHIFT ACTIONS MENU
20268215	NO STEPS ARE DISPLAYED ON MDT WHEN SINGLE STEP EXIST IN THE PROCEDURE TYPE
20267530	PURGE INBOUND TABLE AT END SHIFT.

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20266931	UNABLE TO COMPLETE SHIFT IN DISCONNECTED MODE
20266308	"END OF SHIFT" STATUS REASON SHOULD BE DISPLAYED ON SERVER
20265759	CUSTOMER CONTACT COMMENTS NOT UPDATED ON SERVER
20263592	FAILURE IN FILE API SELECTION CANCELLED - ERROR MESSAGE
20262306	SETCURRENT LOGLEVEL AND GET MDT LOG FILES NOT WORKING FOR MDT
20258605	INBOUND MESSAGE NOTIFICATION RECEIVED DURING PAGE TRANSITION CAN CAUSE ISSUES
20258408	CM CONFIG.JS IS NOT REQUIRED TO HAVE ANY CONTENT OTHER THAN A VARIABLE DECLARATION
20252517	UNABLE TO VIEW TASK AFTER CLICKING ON SHOW MORE BUTTON
20252420	NOT ABLE TO NAVIGATE TO ATTACHMENTS FROM DEPOT TASK UI
20251918	AFTER DECLINING AND COMPLETING DEPOT TASK, DEPOT ACTIVITY COMPLETION SCREEN SHOWN
20251185	RESET LOCKED TO DEPOT TASK ON ACTIVITY WHEN DEPOT TASK ASSIGNMENT IS DECLINED
20250524	SHIFT PREVIEW ERROR MESSAGE GENERATES EXTRA CROSS MARK ON THE SHIFT ACTION MENU
20245963	UNDEFINED CONTEXT-VALUE FOR SHIFTTID ON M1-SHIFTUPD REQUEST HEADER
20245574	21857 INBOUND MSG - GUARANTEED DELIVERY BASE ALGORITHM SHOULD NOT USE SAVEPOINT
20241199	UNABLE TO VIEW COMPLETED SHIFT PROCEDURE DETAILS
20241024	TRACKING FW BUG - UNABLE TO DELETE DEPLOYMENT - CONCURRENCY ERROR
20240724	HUGE NUMBER OF ALERTS ARE GETTING GENERATED EVEN THOUGH ALERT TYPES ARE INACTIVE
20240393	CREW SHIFT MOBILE LOG - NOT UPDATING IN CREW SHIFT LOG TAB
20237997	REMOTE MESSAGES MISSING PROPER CONTEXT INFO
20234991	PAGE BUTTONS API TO BE IMPROVED

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20234938	NOT ABLE TO COMPLETE THE DEPOT ACTIVITY WHEN THERE ARE NO ITEMS TO DELIVER
20232523	ADD MISSING OUTBOUND (FROM CLIENT) HEADERS
20228313	UNSAVED CHANGES ARE NOT PURGED FROM ACTIVITY COMPLETION SCREEN
20228066	LOAD ASSIGNMENT IS STILL EXISTS AFTER DECLINING DEPOT RELATED ACTIVITY
20227430	ISSUE WHILE SAVING MOBILE WORKER AND VEHICLE IN SHIFT ACTIONS
20226210	TASKS AND MESSAGES NOT DISPLAYED ON BROWSER IF FORCE LOG OFF FROM PREVIOUS MDT
20225116	FIX THE ENCRYPTION KEY ISSUE
20223069	RELATED ENTITIES FOR ATTACHMENTS FAILING TO LOAD ON INBOUND
20219845	ABLE TO START ACTIVITY WHEN OTHER TASK IS IN PROGRESS
20219499	SUPPORT MULTIPLE USERS IN SINGLE SHIFT.
20218759	HARD CODED VALUES IN PANICALERT PAGE AND SETTINGS PAGE
20218488	NOT ABLE TO INACTIVATE MDT - (SPECIFIC MDT ID)
20218436	PROCEDURES ARE SHOWN AFTER CHANGING THE PRIMARY FUNCTION WITH NO PROCEDURE
20217698	ENABLE ENCRYPTION FOR INBOUND AND OUTBOUND TABLES
20213761	PANIC ALERT SENDING AUTOMATICALLY WHEN CLICK ON BACK BUTTON FROM SETTINGS SCREEN
20213695	UNABLE TO SEND PANIC ALERT FROM SETTINGS SCREEN
20213076	REQUEST TO CHANGE MCP CLIENT VERSION - INTERNAL
20212940	PANIC ALERT SHOULD BE AVAILABLE IN THE PROCEDURES & CREW SHIFT START SCREEN
20212836	ABLE TO COMPLETE DEPOT RELATED ASSIGNMENT ON MDT WHEN IT IS RETURNED ON SERVER
20212795	AFTER CLOSING THE ALERT IT SHOULD REDIRECT TO PREVIOUS SCREEN
20212704	PANIC ALERT COUNTDOWN SET TO 0 THEN DEFAULT VALUE SHOULD BE 10

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20212501	ERROR RESPONSE IF NO NETWORK AND PANIC ALERT SENT FROM BROWSER
20212438	EMPTY ERROR MESSAGE WHEN SENT PANIC ALERT REACH TO 0 AND IF THERE IS NO N/W
20211928	AFTER POSTPONING AN ACTIVITY OPEN TASK LIST SCREEN IS NOT DISPLAYED
20211326	LOADING ASSIGNMENT REPORTED AS CONCURRENT ASSIGNMENT
20210741	ENHANCE DB APIS TO SUPPORT GENCOL4 - GENCOL10 COLUMNS ON F1_BIZOBJ
20206941	TRANSACTION ROLLBACK ISSUE - SEARCHBUSINESSOBJECT API USING WRONG TRANSCATION
20206738	INBOUND MESSAGES WITH RELATED ENTITIES DOES NOT HANDLE DUPLICATES
20205207	TASK AND SHIFT MOBILE LOGS
20204117	ERROR RESPONSE RECEIVED FROM SERVER IF NO MDT CREATED ON SERVER
20201913	INCORRECT ERROR MESSAGE WHEN INCORRECT DEPLOYMENT ITEM ADDING TO DEPLOYMENT PART
20199456	SIMPLIFY PROCEDURE FLOW
20196550	RESEND BUTTON SHOULD NOT EXIST ON SUCCESSFULLY SENT MAIL
20196394	UNABLE TO EDIT THE USER IN AN ERROR SENT MAIL
20196348	ERROR MESSAGE NOT APPROPRIATE WHEN SENT MAIL WITH INVALID USERID
20196277	SENT MAIL SHOULD DISPLAY DEVICE TIME
20195355	GPS - CAPTURE DATE AND TIME SHOULD BE APPLICATION DATE AND TIME
20191829	SUPPORT CREW LOCATION WHEN A DEVICE DOES NOT HAVE GPS
20188477	LOG FILES ON MDT PAGE ARE NOT DISPLAYED IN ORDER OF DATE TIME
20188386	LOG FILES SEARCH QUERY ON LOG FILES TAB OF MDT IS NOT WORKING
20187862	NO ALERT ON MDT WHEN USER TRYING TO DOWNLOAD THE OUT DATED DEPLOYMENT
20187800	ERROR WHEN EXECUTE M1-DPUTD BATCH
20187767	UNABLE TO DUPLICATE USER GROUP ALL SERVICES

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20187704	ERROR MESSAGE NEEDS TO CHANGE FOR DEPLOYMENT LIST FETCH FAILED
20187681	OUT OF DATE - TODO'S ARE NOT GETTING CLOSED EVEN AFTER GENERATING NEW DEPLOYMENT
20186459	ESTIMATED DURATION LABEL OVERLAPS WITH THE TEXT BOXES ON GO OUT OF SERVICE PAGE
20186377	UNABLE TO SELECT STATUS REASON TO GO OUTOFSERVICE
20184584	SHOW LINK TO DEPOT RELATED ASSIGNMENT AND LOAD ASSIGNMENT ON DEPOT TASK ITEMS
20177616	LOADING ICON DOESNT SHOW UP AFTER SELECTING DEPLOYMENT
20176439	FIXED ONSUCCESS EXIST CONDITION IN BARCODE
20175659	ATTACHMENT DOWNLOAD THROWS ERROR IF SERVERDATA IS UNDEFINED
20175612	GPS LOGGING FAILS
20172737	ENCRYPTION PLUGIN - PACKAGING
20170969	WHEN ATTACHMENT IN DEPLOYMENT , OUT OF DATE CONTINUOUSLY REPORTED EVEN WHEN NOT
20168868	SEND GPS COODINATES ALONG WITH PANIC ALERT
20159374	DEPOT TASK IS NOT SHOWN IN CREW SHIFT PREVIEW
20159322	ACTIVITY LEGEND AND ROUTE ARE DISPLAYED ON MAP EVEN AFTER ACTIVITY COMPLETION
20158857	CREW LOCATION DOES NOT CHANGE AFTER COMPLETING ACTIVITES
20158782	CREW LOCATION DOES NOT CHANGE AFTER STARTING AN ACTIVITY
20158479	ALL THE SECTIONS IN ACTIVITY SHOULD BE READ ONLY IN PREVIEW MODE
20158380	LAST COMMUNICATION TIME ON MDT SEARCH ZONE NOT IN USER DISPLAY FORMAT
20158311	CREW LOCATION NOT DISPLAYED ON MAP CORRECTLY IN WEB BROWSER
20147669	HIDE SIGNATURE IN BROWSER
20138724	START ODOMETER IS NOT SAVED
20135955	ABLE TO DECLINE DELIVERY ASSIGNMENT WITHOUT DECLINE REASON
20135853	USE GPS_SYNC_INTERVAL FLAG TO SYNC THE GPS DATA.

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20135629	HEADER SHOULD BE CHANGED IN DEPLOYMENT TYPE CREATION SCREEN- SERVER
20135625	PAPER CLIP ICON NOT SHOWN WITH ACTIVITIES WHICH HAVE COMMON ATTACHMENTS
20135574	HEADER SHOULD BE CHANGED IN PRIMARY FUNCTIONS FROM SHIFT ACTIONS SCREEN
20135501	EMPTY ERROR MESSAGE DISPLAYED WHEN DECLINE REASON IS NOT SELECTED
20135494	PAPER CLIP ICON SHOULD NOT SHOW ON WEB BROWSER
20135344	ATTACHMENT SIZE IS NOT UPDATED ON MDT WHEN ATTACHMENT IS UPDATED
20135068	ERROR MESSAGE ON ATTACHMENTS SCREEN
20134798	COMMON ATTACHMENTS DISPLAYED EVEN WHEN TASK TYPE NOT INCLUDED IN DEPLOYMENT PART
20134753	ATTACHMENT HYPER LINK NOT AVAILABLE IN SHIFT ACTIONS SCREEN
20133778	ACTIVITIES ARE NOT NOT DISPLAYED IN NEW DEVICE AFTER FORCE LOGOFF
20128111	PANIC BUTTON NOT AVAILABLE IN ACTIVITY ATTACHMENTS SCREEN ON MDT
20127153	ABLE TO COMPLETE THE DEPOT ACTIVITY WITH PARTIAL DELIVERY ON MDT
20126898	ERROR MESSAGE SHOULD NOT BE DISPLAYED AFTER NAVIGATING TO PROCEDURES UI IN MDT
20126291	HEADER OF DEPLOYMENT LIST SHOWS LOGIN AS PAGE TITLE
20126015	ALIGNMENT ISSUES IN ANDROID
20125941	UNNECESSARY MENU ITEMS DISPLAYED IN MENU LIST.
20125190	REMOVED CONDITION TO LOAD ONLY M1 BO'S IN M1-MCPDPTASK
20125067	SUPPORT FOR CM EXTENSION OF UI AND BO SCRIPTS
20120666	MESSAGES,TASKS TAB AND SHOW MORE BUTTON ARE OVERLAPPED IN ANDROID S4
20120637	NULL - ON USER AUTHENTICATION SCREEN IF NO USER ADDED TO THE APPLICATION
20120633	INCORRECT ALERT MESSAGE DISPLAYED AND UNABLE TO CLOSE THE ALERT MESSAGE

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20120396	PANIC ALERT COUNTDOWN NUMBER SHOULD BE W.R.T VALUES CONFIGURED IN MASTER CONFIGU
20119773	UNABLE TO DELETE ATTACHMENTS IN IPOD
20119670	NEED A PROXY MAP VIEWER SERVER - WITH MAPVIEWER VERSION 11.1.1.7.3
20119485	NOT ABLE TO VIEW ATTACHMENTS ON THE DEVICE MDT
20119331	INCORRECT MAIL COUNT - MESSAGE TAB
20119304	CREW SHOULD NOT ALLOWED TO SEND MAIL WITHOUT SUBJECT
20119183	PREVIEW SHIFT OPTION SHOULD HIDE FROM MAIL SETTINGS PAGE
20119143	UNABLE TO VIEW MESSAGE IF THE MESSAGE SENT FROM DISPATCHER TO ALL CREWS
20117879	HARDCODED LABELS IN CREW SHIFT AND TASKLIST
20117849	ADDED GENERAL ERROR MESSAGE TO BREAK,POU,NPT JS FILES
20113642	SERVER SIDE ACTIVITIES ARE DISPLAYED IN ASSIGNMENT LIST ZONE IN DEPOT TASK UI
20113491	COPY OF BUG 20113483 - ADD GPS DATA SERVICE ERRORS OUT "ACTION INVALID" IF GPS R
20113210	UPDATE SERVER WITH ESTIMATEDOUTOFSERVICEDURATION WHILE SHIFT AT OUTOFSERVICE
20112292	PROCEDURE PAGE BUTTONS NOT INLINE WITH THE APPLICATION
20112171	ATTACHMENTS FOLDER TO BE DELETED AFTER SHIFT END
20108008	UNABLE TO NAVIGATE TO DEPOT TASK ASSIGNMENT IN RETURNED STATE
20107984	PAPER CLIP ICON IS OVERLAPPING WITH ATTACHMENT BUTTON FOR ITEMS
20107980	UNWANTED MESSAGE BOX WHILE LOADING CDI
20107873	UPDATE DATE TIME FIELD IN LOG FILES TAB OF MDT PAGE NOT POPULATED
20107166	WORK DONE OPTION SHOULD NOT BE AVAILABLE - DEPOT ACTIVITY
20106660	ALIGNMENT ISSUE IN IPOD

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20106573	SHIFT IS IN OUT OF SERVICE EVEN AFTER STARTING THE LOAD ASSIGNMENT
20103244	ADDED ID'S TO HTML PAGES
20100137	SHOW MORE BUTTON SHOULD NOT BE SHOWN WHEN NO TASKS ARE AVAILABLE
20099972	ONLY START ODOMETER SHOULD BE DISPLAYED ON CREW SHIFT START PAGE
20099910	MESSAGE CATEGORY NUMBER IS REQUIRED FOR THE MESSAGES SHOWING ON DEVICE
20099288	CREW SHIFT COMPLETION NOT SYNCED TO SERVER
20098334	UI NAVIGATION SHOWS UNRENDERED PAGE FIRST BEFORE DISPLAYING THE RENDERED ONE
20097827	VIEW EMAIL SCREEN - FONT AND HEADER ISSUE
20096709	PROCEDURES WHICH ARE FAILED ARE NOT FETCHED AGAIN FROM SERVER DURING SHIFT START
20096371	ADDED CM CSS FILE REFERENCES IN INDEX.HTML,
20093564	NEGATIVE, DECIMAL VALUES SHOULD NOT BE ACCEPTED AND VALIDATION ISSUES IN ENDSHIF
20092995	UNABLE TO COMPLETE VEHICLE PROCEDURE BEFORE SHIFT START
20091158	ATTACHMENT SIZE CHECK IS INCORRECT
20088679	REMOVE \$.MOBILE.CHANGEPAGE REFERENCES AND USE NAVIGATETOPAGE API
20085525	QUANTITY OF ITEMS(PACKAGED/SINGLE ITEM) IN ITEM LIST NOT DISPLAYED
20084668	ADD SERVICE CLASS TO THE DEPLOYMENT PART & DISP PRIMARY FUNCTIONS ON SHIFT UI
20083305	GPS SYNC FAILED DUE TO INVALID FIELD LENGTH
20077551	INDICATOR NOT CHANGING TO "NOT CONNECTED" WHEN NETWORK DISCONNECTS
20076923	CHECK FOR CONNECTIVITY FAILING
20076010	DATE/TIME FORMATTING RETURNS NAN ON IOS
20075128	DEPOT ACTIVITIES NOT DISPATCHED UNTIL TWO DEPOT TASKS WITH DIFF DEPOTS COMPLETED
20074620	ABLE TO START TWO DEPOT TASKS AT THE SAME TIME ON MDT
20072938	ADD SUPPORT FOR CM EXTENSIONS OF A BO AND NON BO UI PAGES.

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20071308	TASK LIST - ATTACHMENT INDICATOR
20067511	RETURNED DEPOT ACTIVITY IS DUPLICATED IN COMPLETED TAB ON MDT
20066482	GET THE HARD CODED LABELS FROM DEPLOYMENT
20066242	FR: DEPLOYMENT PARTS NEED TO BE MOVED AROUND
20065137	DEVICE/ANDROID BACK BUTTON SHOULD BE INLINE WITH APPLICATION HEADER BACK BUTTON
20064904	ABLE TO START THE SHIFT WITHOUT MOBILEWORKER
20064630	M1-SYNCDATA SHOULD PROCESS DATA BASED ON ASYNC_INTERVAL
20063420	DEPOT TASK TYPE UI ALLOWING DISPLAY AND MAINTENANCE OF INCORRECT FIELDS
20060653	ENABLE FILTER SUPPORT FOR TASKLIST PAGE & OTHER LISTS
20055138	ADD A NEW PROPERTY TO LOAD COMMON JS FILES AT APPLICATION LUANCH
20048260	WHEN OUT OF DATE DEPLOYMENT IS SELECTED A WARNING SHOULD BE SHOWN
20047214	OLD POP-UP MESSAGES ARE VISIBLE AFTER SHIFT WAS ENDED
20044319	ONLY DISPLAY COMMON ATTACHMENTS FOR THE CURRENT ASSIGNMENT'S ACT TYPE
20043685	REMOTE MESSAGE RECORD THE DELIVERY_STATE_FLG NOT CHANGED FROM M1DE TO M1PR
20043097	ITEM SECTION SHOWS EMPTY ATTRIBUTE DETAILS AND PKGD ITEMS HEADERS ON ACTIVITY
20043075	DUPLICATE DISPLAY OF ITEMS DETAILS ON ACTIVITY
20042862	TEMPLATE ALL THE HEADERS REQUIRED ON DIFFERENT UI SCREENS
20030037	BUG 4 FOR MERGING HD CODE WITH SP1 - CONFLICTS MERGE
20028225	M1-ASSIGNMENT UI CHANGES
20027414	MAP SERVER CONFIG NOT REFRESHED ON DEPLOYMENT REFRESH
20027378	SHOW ATTACHMENT NAME INSTEAD OF DESCRIPTION IN ATTACHMENT LIST

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
20026928	DEPOT TASK ASSIGNMENT (LOADING ASSIGNMENT SCREEN)- UI CHANGES
20026670	COMMON ATTACHMENTS DON'T SHOW UP ON THE ATTACHMENTS UI
20024318	LOGGER AND APPENDER ISSUES
20021954	GUARANTEED DELIVERY OPTION ON MDT
20016184	NO CONFIRMATION POPS UP WHILE ENDING THE SHIFT ON MDT AND WEB BROWSER
20015464	UPDATE SCREENS WITH INDICATOR BAR AND PANIC ALERT FEATURES
20014908	ERROR.JSP FILE MISSING IN MOBILITY CONTEXT
20013741	BUG 2 FOR MERGING HD CODE WITH SP1
20013650	UNABLE TO PROCESS TASKS ON MDT/WEB BROWSER - WITH POU
20012040	BUG 1 FOR MERGING HD CODE WITH SP1
20010808	INBOUND MESSAGES WITHOUT BO STATUS
20010614	FR COMMENTS FOR CLIENT APPLICATION - SHIFT AND TASK LIST
20002921	21857 OM - SYNC DATA BUSINESS SERVICE MUST UPDATE MDT_LAST_DEVICE_REG_DT
20000648	ERROR MESSAGE DISPLAYED WHILE ADDING BARCODE CAPABILITY TO MDT TYPE
19996219	ISSUES ON INSTALLABLE CLIENTS WHEN ENCRYPTION IS ON
19985381	PROGRESS BAR SHOULD BE SHOWN IF ATTACHMENT DOWNLOAD IS IN PROGRESS
19985059	NO EMERGENCY ICON DISPLAYED FOR EMERGENCY MESSAGE ON MDT
19983720	POU AND NPT LOCATIONS SHOULD BE SHOWN ON MAP IN MDT
19982438	FR FOR ITEMS - CLIENT APPLICATION
19973547	ERROR MESSAGE DISAPPEARING USER AUTHENTICATION SCREEN - ANDROID APK
19973305	CLICKING ON BACK BUTTON NAVIGATING TO SHIFT SCREEN THEN USER AUTHEN SCREEN
19972249	DEFAULT MDT URL IN USER AUTHENTICATION SCREEN NEEDS TO BE CORRECTED
19972065	CREW LOCATION DEFAULTED TO 0,0 AFTER LOADING THE MAP ON WEB BROWSER

20316770	NO ALERT ON USER AUTHENTICATION SCREEN OF THERE IS NO NETWORK OF INVALID URL
19938937	REFRESH = TRUE SUPPORT ON GET DEPLOYMENT TO AID DEVELOPERS
19938497	DEPLOYMENT UI RELATED
19930345	ABLE TO START DEPOT ACTIVITY WHEN DEPOT TASK IS IN PROGRESS
19929225	ASSIGNMENT LIST ZONE IN DEPOT TASK UI IS DISPLAYED WITH ERROR
19928563	OUI INSTALLER FOR HD 2.2.1 DOESNT RUN ON MAC
19918180	OPEN TASK LIST UI NOT DISPLAYED AFTER ALL TASKS COMPLETED
19917132	NO VALIDATIONS ON CREW SHIFT START PAGE
19915397	SIGNATURE IN CUSTOMER ACCEPTANCE SECTION NOT SENT TO THE SERVER (IOS DEVICE)
19908621	DEPLOYMENT UI RELATED
19905465	WHILE DELETING ATTACHMENTS ON MDT - REQUIRED CONFIRMATION ALERT
19905302	ATTACHMENTS ARE NOT SUPPORTED FOR WEB BROWSER IF YES NO ATCHMNT DATA SHOULD SHOW
19895980	IT: OUTBOUND MESSAGES CREATED OFFLINE AREN'T SYNCHING ACROSS
19895914	DEVICE REGISTRATION SHOULD STAMP MDT OWNER
19895854	IT1: DISPLAY SPECIFIC MESSAGES WHEN DATA IS NOT ENTERED
19893749	LOGGER RELATED DEVICE OPTIONS ARE NOT PULLED AS PART OF DEVICE OPTIONS
19889854	ATTACHMENTS AT ITEM LEVEL DO NOT HAVE ITEM ID
19888963	ATTACHMENT SHOULD NOT BE DOWNLOADED IF SIZE IS MORE THEN SPECIFIED ON MDT
19888944	ATTACHMENT ADDED ON DEVICE DOES NOT SHOW IN LIST IMMEDIATELY
19886940	APK AND IPA FILES NAMING CONVENTION ISSUE.
19883777	ITEMS IN PACKAGE NOT SHOWN IN DEPOT RELATED ASSIGNMENT-ITEM INFORMATION (CLIENT)
19784672	CREATE A NEW M1-DISPATCHEDDetails DATA AREA FOR M1-ASSIGNMENT DISPATCH DETAILS

Appendix E

Common Maintenance Activities

This appendix lists frequently-used commands that you use to perform common maintenance activities, such as starting and stopping the environment and thread pool worker, modifying the configuration items.

Run the following commands to perform these common tasks:

To Initialize the Environment

1. Go the directory <install_dir>/bin.
2. Run the following command:

UNIX:

```
./splenviron.sh -e <Env_Name>
```

Windows:

```
splenviron.cmd -e <Env_Name>
```

To Start the WebLogic Server

1. Initialize the environment.
2. Run the following command:

UNIX:

```
./spl.sh start
```

Windows:

```
spl.cmd start
```

To Stop the Batch Server

1. To stop the BatchScheduler:

UNIX:

```
cd $SPLEBASE/bin  
batchscheduler.sh stop
```

Windows:

```
cd %SPLEBASE%\bin  
batchscheduler.cmd stop
```

To Start the Batch Scheduler

1. Run the following command:

UNIX:

```
cd $SPLEBASE/bin
nohup batchscheduler.sh NodeID > /tmp/batchscheduler.log 2>&1 &
```

Windows:

```
cd %SPLEBASE%\bin
batchscheduler.cmd NODEID
```

Note: Batchscheduler is a wrapper over TPW. You can also pass regular TPW arguments to batchscheduler. Node ID parameter is now no longer used in v2.2.1.0 but is retained for backward compatibility.

To Stop the Batch Scheduler

To stop the batch scheduler

UNIX:

```
cd $SPLEBASE/bin
batchscheduler.sh stop
```

Windows:

```
cd %SPLEBASE%\bin
batchscheduler.cmd stop
```

To Check Whether the BatchScheduler is running:

To check whether the batch scheduler is running

UNIX:

```
cd $SPLEBASE/bin
batchscheduler.sh check
```

Windows:

```
cd %SPLEBASE%\bin
batchscheduler.cmd check
```

To Modify the Configuration Values

1. Initialize the environment.
2. Run the following command:

UNIX:

```
ConfigureEnv.sh
```

Windows:

```
configureEnv.cmd
```

The configuration utility launches menu items. Select any Menu option.

3. Change the menu values.
4. After you change the menu values, press P to write the changes to the configuration file.
5. To apply the changes to the environment, run the initial setup script:

```
InitialSetup.sh,
```

Note: Whenever you run the initial setup script (InitialSetup.sh), if you wish to deploy the mobile client war file in the server, please follow the step mentioned

in the section "Building the Mobile Application on Apache Cordova Project" in the *Oracle Real-Time Scheduler Mobile Application Installation and Deployment Guide*.

To Modify the Advanced Menu Option Values

1. Initialize the environment.

The configuration utility launches menu items.

2. Run the following command:

UNIX:

```
ConfigureEnv.sh -a
```

Windows:

```
configureEnv.cmd -a
```

3. Select any menu option.
4. Change the menu values.
5. To apply the changes to the environment, run initial setup script:

```
InitialSetup.sh
```

Note: Whenever you run the initial setup script (InitialSetup.sh), if you wish to deploy the mobile client war file in the server, please follow the step mentioned in the section "Building the Mobile Application on Apache Cordova Project" in the *Oracle Real-Time Scheduler Mobile Application Installation and Deployment Guide*.

Appendix F

User Documentation

This section provides instructions for installing the Oracle Real-Time Scheduler user documentation that is supplied with the system. Oracle Real-Time Scheduler user documentation is provided in PDF format for printing.

The documentation is also provided in HTML format located inside the Oracle Real-Time Scheduler application server installation package. It is automatically installed and can be launched from the user interface. The files are under the applications directory packaged in the file named help.war. User documentation is provided in English (ENG). The documentation material is divided into the following subdirectories underneath the language directory:

- M1: Oracle Real-Time Scheduler User Guide
- F1: Oracle Utilities Application Framework Administration and Business Process Guides

Installing Stand-Alone Online Help

You can also use the Oracle Real-Time Scheduler online help in stand-alone mode (that is, you do not have to launch it from the Oracle Real-Time Scheduler application or access it on the application server).

To install the help for stand-alone operation, copy the help.war from the Oracle Real-Time Scheduler server (environment) or from the installation package to the server or machine on which you want to access the help. If you want to copy the file from any installed environment, you can locate the file in the \$SPLEBASE/splapp/applications directory on the server.

Unzip the help.war file to any directory on your machine. To launch the Oracle Real-Time Scheduler help in stand-alone mode, open the SPLHelp.html file (located inside the language directory that you wish to use).

Note: Do not change the subdirectory names. The documents use relative path names to link to other documents. Changing the subdirectory names will result in broken links.

Customizing Help for Stand-Alone Operation

You can customize the SPLHelp.html file to open to the file and topic that you most frequently use. To do so, edit the SPLHelp.html file and change the DEFAULT_BOOKMARK to the desired location. The default DEFAULT_BOOKMARK is 'helpHome.html'.

Installing Stand-Alone Help Under Web Server

You can also install Oracle Real-Time Scheduler online help as a stand-alone web application. You can use any web application server, such as WebLogic. Configure the configuration file for your web application server to use web application help.

For example,

-
- For WebLogic, configure config.xml file for deployed application Name="help" with URI="help.war" and set WebServer DefaultWebApp="help"

Access the documentation from the browser by the following URL :

http://<host name>:<port name>/<WebContext>/<Lang>/SPLHelp.html

where <hostname>:<portname> is the URL of the web server, <Web Context> is the root web context name specified during web application server configuration, <Lang> is the name of the language directory, for example, ENG.

Note: Standalone online help files are not automatically updated when changes are made to the help files on the application server. You will have to re-install the stand-alone online help files.

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2001-12-12

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