Oracle® Retail Warehouse Management System Installation Guide
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ORACLE

Contents

Preface

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

Audience

This Installation Guide is written for the following audiences:

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

Related Documents

For more information on RWMS, please see the following documents:

- Oracle Retail Warehouse Management System Release Notes
- Oracle Retail Warehouse Management System Online Help
- Oracle Retail Warehouse Management System Data Model
- Oracle Retail Warehouse Management System Radio Frequency User Guide
- Oracle Retail Warehouse Management System User Interface User Guide
- Oracle Retail Warehouse Management System Operations Guide

Customer Support

- https://metalink.oracle.com

When contacting Customer Support, please provide:

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

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Pre-Installation Tasks

Check Database Server Requirements

General requirements for a database server capable of running RWMS include:

- Unix based OS(AIX 5.2, AIX 5.3, Solaris 5.9, or HP-UX 11.11) certified with Oracle 9i Enterprise Edition
- ANSI compliant C compiler
- Perl Compiler 5.0 or later
- Oracle RDBMS 9i Enterprise Edition (minimum 9.2.0.7 patchset required) with the following patches and components:

  Patches:

  - Solaris: 4533592 (WRONG PERMISSIONS AFTER INSTALLATION IN OH AND SUBSEQUENT DIRECTORIES)
  - AIX: 4206556 (ORA-02002 & ORA-00600 KZASPS1 WHEN NOT AUDITING SYSTEM PRIVS)

  Components:

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

Check Application Server Requirements

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

- UNIX based OS certified with Oracle Application Server (9IAS) 1.0.2.2.x (options are AIX5.2, AIX5.3, Solaris 9, and HP-UX 11.11)
- Oracle Application Server
- x-Windows interface (only if UNIX OS)
- Sizing factors and other suggestions to factor into your selection of an application server include:
  - CD-ROM drive
  - 1 Gbit network adapter
  - ~2 GB Free disk space for Oracle Application Server (9iAS)
  - ~1 GB Free disk space for RWMS forms, reports, gif files and help files.

Check Web Browser and Client Requirements

General requirements for client capable of running RWMS include:

JRE Plugin

- Oracle JInitiator 1.1.8.xx

Client PCs

- Windows 2000 or XP with Pentium processor
- 1024x768 resolution
- PC Configuration (minimum 256 MB RAM, 450 MHz)
- Internet Explorer 5.5, 6.0 and higher

Create a UNIX User Account to Install the Software

1. Create a UNIX group named “dev”.
2. Create UNIX user named “oretail” and assign it to the “dev” group. This user will install the RWMS software

Create Staging Directory for RWMS Database Files

1. Log into the UNIX server as oretail.
2. Create a staging directory for the RWMS database installation software. There should be a minimum of 100 MB disk space available in this location.
3. Copy the rwms12dbserver.zip file from the CD/dbserverunix directory to the staging directory. This will be referred to as INSTALL_DIR for the remainder of this installation guide
4. Change directories to INSTALL_DIR and extract the rwms12dbserver.zip file.

Create Staging Directory for RWMS Application Server Files

1. Log into the application server as the oretail user.
2. Create a staging directory for the RWMS application installation software. There should be a minimum of 500 MB disk space available in this location.
3. Copy the file rwms12appserver.zip from the CD/appserverunix directory to staging directory. This will be referred to as INSTALL_DIR when installing application software.
4. Change directories to INSTALL_DIR and extract the file rms12appserver.zip.
5. Make sure all scripts in INSTALL_DIR/forms6i_scripts have at least execute permissions for the oretail user and its group (r-xr-x---).

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Database Installation Tasks

Create the RWMS Database

It is assumed that Oracle Enterprise Edition 9i, with appropriate patches, has already been installed. If not, refer to "*Check Database Server Requirements*" in Chapter 1, "Pre-Installation Tasks" before proceeding. Additionally, *INSTALL_DIR* in this section refers to the directory created in "Create Staging Directory for RWMS Database Files", Chapter 1.

If a database has already been created, it is necessary to review the contents of this section to determine if all database components have been installed and configured properly. Also refer to Appendix A.

Create the Database

1. Login to UNIX as the Oracle user; typically the user that owns the Oracle RDBMS software.
2. Create the Oracle recommended OFA directory structure for the database (datafile directories, adump, bdump, cdump, arch, create, exp, pfile, udump, utl_file_dir)
3. Place an entry in the oratab file for the database and execute oraenv to set the ORACLE_SID and ORACLE_HOME environment variables.
4. Copy INSTALL_DIR/create_db/initrwms.ora to the $ORACLE_HOME/pfile directory and rename it to init${ORACLE_SID}.ora. Modify the parameters according to guidelines specified in this file.
5. Create a symbolic link from $ORACLE_HOME/pfile/init${ORACLE_SID}.ora to $ORACLE_HOME/dbs/init${ORACLE_SID}.ora.
6. Modify the INSTALL_DIR/create_db/crdb1.sql file. Refer to comments in this file regarding modifications that need to be made.
7. Login to SQL*Plus as SYSDBA and execute INSTALL_DIR/create_db/crdb1.sql. Review crdb1.log for errors and correct as needed.
8. Login to SQL*Plus as SYSDBA and execute INSTALL_DIR/create_db/crdb2.sql. Review crdb2.log for errors and correct as needed.
9. Login to SQL*Plus as SYSDBA and execute INSTALL_DIR/create_db/crdb3.sql. Review JServer.log, context.log and xdb_protocol.log for errors and correct as needed.
10. Configure the listener.
11. Confirm that these RWMS required packages exist and are valid: `DBMS_SESSION`, `DBMS_RANDOM`, `DBMS_LOCK`, `DBMS_AQ`, `DBMS_AQADM`, `DBMS_ALERT`, `DBMS_PIPE`, and `DBMS_JOB`

Create the Tablespaces

1. The INSTALL_DIR/create_db/create_rwms_tablespaces.sql script contains the DDL for creating the required tablespaces; this script should be modified as appropriate for the intended environment. Refer to Appendix B.
2. Login to SQL*Plus as SYSDBA and execute INSTALL_DIR/create_db/create_rwms_tablespaces.sql.
3. Review create_rwms_tablespaces.log for errors and correct as needed.

Create the Schema Owner

Create an Oracle schema that will own the RWMS application.

> **Note:** There is a 10 character limit on the schema owner.

1. Change directories to INSTALL_DIR/utility
2. The create_user script relies on the empty roles, developer and wms_user, being created. Log into sqlplus as system and run the following command to create that role.
3. SQL> create role developer;
4. SQL> create role wms_user;
5. Enter the following command to create the schema owner.

   ```
   SQL> @create_user.sql
   ```

   - The following prompts will occur:
     - Schema Owner – the Oracle user that will own all RWMS objects. Referred to in this install guide as RWMS12DEV
     - Password – the password for RWMS12DEV
     - Temp Tablespace – the temporary tablespace for RWMS12DEV
6. Check the log file create_user.log for any errors. This log file should be removed to prevent the password from being compromised.

Additional Grant for the Schema Owner

1. Change directories to INSTALL_DIR/utility
2. The rwms_owner_grants script grants specific grants needed by the RWMS schema owner. Log into sqlplus as **sys as sysdba** and run the following command:

   ```
   SQL> rwms_owner_grants.sql
   ```
3. Check for any errors.

Create RWMS types

1. Change directories to INSTALL_DIR/types
2. Log into sqlplus as RWMS12DEV and run the following command:

   ```
   SQL> @rwms12type.sql
   ```
3. Check the log file rwms12type.log for any errors

Create RIB Objects

Note: When running the scripts in this section the following errors may be encountered "ORA-04043 object XXXX does not exist" and "Warning: Type created with compilation errors". These errors can be ignored. The ORA errors are caused by dropping the item the script is about to create and the warnings are caused by dependencies on objects that get created later. The warnings will be cleared when objects are revalidated later in the install.

Create RIB Tables and Types

1. Change directories to INSTALL_DIR/rib_objects/ddl
2. Log into sqlplus as RWMS12DEV and run the following command:
   ```
   SQL> @rib12ddl.sql
   ```
3. Check the log file rib12ddl.log for any errors noting that ORA-04043 errors and warnings are to be ignored.

Create RIB Objects

1. Change directories to INSTALL_DIR/rib_objects/db_objects.
2. Log into sqlplus as RWMS12DEV and run the following command:
   ```
   SQL> @rwms12rib.sql
   ```
3. Check the log file rwms12rib.log for any errors noting that ORA-04043 errors are to be ignored.

Loading RIB Data

1. Change directories to INSTALL_DIR/rib_objects/ddl.
2. Run the following command at the UNIX prompt:
   ```
   sqlldr RWMS12DEV/SCHEMA_PASSWORD control=rib_doctypes_rwms.ctl
   ```
3. Check the log file rib_doctypes_rwms.log for any errors.

Validate all Invalid Objects

Note: Deadlocked objects may appear when running this script. This is expected. Run the script until no invalid objects remain.

1. Change directories to INSTALL_DIR/utility
2. Log into sqlplus as RWMS12DEV and run the following command:
   ```
   SQL> @inv_obj_comp.sql
   ```

Note: This script may need to be run more than once.

Create RWMS Objects

Create RWMS Tables

The warnings will be cleared when objects are revalidated later in the install.

1. Change directories to INSTALL_DIR/ddl
2. Log into sqlplus as RWMS12DEV and run the following command:
   ```
   SQL> @rwms12.sql
   ```
3. Check the log file rwms12.log for any errors.

Create RWMS Triggers

1. Change directories to INSTALL_DIR/db_objects/trg
2. Log into sqlplus as RWMS12DEV and run the following command:
   ```
   SQL> @rwms12dbo.sql
   ```
3. Check the log file rwms12dbo.log for any errors.

Create RWMS Database Objects

1. Change directories to INSTALL_DIR/db_objects
2. Log into sqlplus as RWMS12DEV and run the following command:
   ```
   SQL> @rwms12dbo.sql
   ```
3. Check the log file rwms12dbo.log for any errors.

Validate all Invalid Objects

> **Note:** Deadlocked objects may appear when running this script. This is expected. Run the script until no invalid objects remain.

1. Change directories to INSTALL_DIR/utility
2. Log into sqlplus as RWMS12DEV and run the following command:
   ```
   SQL> @inv_obj_comp.sql
   ```
3. This script may need to be run more than once.

Insert Data for RWMS

1. Change directories to INSTALL_DIR/data
2. Log into sqlplus as RWMS12DEV and run the following command:
   ```
   SQL> @create_base_data.sql
   ```
3. Check the log file rwms_base_data.log for any errors.

System Data for RWMS

> **Note:** When running the scripts in this section the following error may be encountered "ORA-02441 Cannot drop nonexistent primary key" This error can be ignored. The ORA errors are caused by dropping the item the script is about to create.

1. Change directories to INSTALL_DIR/data/dev
2. Log into sqlplus as **system** and run the following command:
   ```
   SQL> @create_forms60_tables.sql
   ```
3. Check the log file create_forms60.log for any errors.

Additional Data for RWMS

1. Log into sqlplus as RWMS12DEV and run the following command:
   Where <sid> is the ORACLE_SID for your RWMS database
   ```
   SQL> update transshipment_setup set local_oracle_sid='<sid>';
   ```

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Application Server Installation Tasks

Note: INSTALL_DIR is the directory where the RWMS files will be extracted from its tar file.
9IAS_ORACLE_HOME is the directory chosen as the ORACLE_HOME to be used for the 9IAS installation

It is assumed that Oracle Application Server 9iAS version 1.0.2.x has already been installed. If not, refer to "*Check Application Server Requirements*" in Chapter 1, "Pre-Installation Tasks" before proceeding**.**

Compile RWMS Oracle Forms and Reports

Environment Variables

1. Set and export your DISPLAY variable.
   ```
   Example:   export DISPLAY=10.1.2.153:0.0
   ```
2. Set the following variables.
   ```
   export FORMS60_PATH= <INSTALL_DIR>/forms/bin
   ```
   (fill in the appropriate values for <INSTALL_DIR>)
   ```
   export UP=<db_user>/<db_user_password>@<oracle_db>
   ```
   (the db_user should be the RWMS oracle schema owner.)
   ```
   export LD_LIBRARY_PATH=
   9IAS_ORACLE_HOME/6iserver/lib:9IAS_ORACLE_HOME/6iserver/network/jre11/lib/spar
   c/native_threads
   export REPORTS60_PATH=<INSTALL_DIR>/reports/bin
   export PATH=<INSTALL_DIR>/forms6i_scripts:$PATH
   ```

Inserting RWMS Libraries into Database

1. Change directories to <INSTALL_DIR>/forms/bin.
2. Set environment variable UP
   UP=RWMS schema owner/password@connect_string
3. Use the fmb2db script located in the forms6i_scripts directory to insert libraries for the Database user.
   ```
   > chmod 755 fmb2db (if necessary).
   > ./fmb2db
   ```

Compile RWMS Libraries (*.pll)

1. Change directories to <INSTALL_DIR>/forms/src.
2. Move all of the libraries (.pll files) in the <INSTALL_DIR>/forms/src directory to the <INSTALL_DIR>/forms/bin directory.
3. cd to <INSTALL_DIR>/forms/bin directory.
4. run pll2plx
5. This will convert the plls to plxs. messge36.pll and stand36.pll will not convert.

Compile Forms (*.fmb)

1. Change directories to <INSTALL_DIR>/forms/src.
2. Use the `fmb2fmx` script located in that directory to compile and generate the executable forms (fmx).
   ```
   > chmod 755 fmb2fmx (if necessary).
   > ./fmb2fmx
   ```
3. Check to make sure each .fmb file has a corresponding .fmx file. If a form fails to compile (there is no .fmx file), you may have to manually compile the form by launching the form builder tool.(f60desm&)
4. All resulting .fmx files need to be moved to the <INSTALL_DIR>/forms/bin directory. From the <INSTALL_DIR>/forms/src directory, issue the following command:
   ```
   > mv *.fmx ../bin
   ```

Compile Menus (*.mmb)

1. Change directories to <INSTALL_DIR>/forms/src
2. Use the `mmb2mmx` script located in that directory to compile and generate the executable form menu ***.mmx**.
   ```
   > chmod 755 mmb2mmx (if necessary).
   > ./mmb2mmx
   ```
3. The resulting *.mmx files need to be moved to the <INSTALL_DIR>/forms/bin directory. From the <INSTALL_DIR>/forms/src directory, issue the following command:
   ```
   > mv *.mmx ../bin
   ```

Compile Reports (*.rdf)

1. Change directories to <INSTALL_DIR>/reports/src
2. All *.rdf files need to be moved to the <INSTALL_DIR>/reports/bin directory. From the <INSTALL_DIR>/reports/src directory, issue the following command:
   ```
   mv *.rdf ../bin
   ```

Configuring 9IAS (UNIX)

1. Copy the following files at <INSTALL_DIR>/web_html/samplefiles/ to a temporary directory in your home directory:
   - ias_web_start – used to start http server and Developer 6i server
   - ias_web_stop – used to stop the http server and Developer 6i server.
   - rwms_env – Contains environment variable information used by ias_web_start.
2. Edit these scripts, replacing 9IAS_ORACLE_HOME with the Oracle Home used during the installation of 9IAS, and replacing <RWMS_INSTALL_DIR> with the directory where RWMS 12 was installed.

   ias_web_start will be used to start the Web environment, while ias_web_stop will be used to shut down the middle tier. rwms_env is used by both scripts to set environment variables necessary for execution. All three scripts should be placed in a common directory. The location of these files should be included in user oracle's PATH variable setting.

   Make sure the following variables are added to your ias_web_start, example values are include.

   ```
   NLS_LANG=AMERICAN_AMERICA.UTF8
   NLS_DATE_FORMAT='DD-MON-RR'
   TK60_UNKNOWN=/u00/webadmin/ias9i/6iserver/Tk2Motif.rgb
   LANG=en_US
   ```

3. Copy the file <INSTALL_DIR>/web_html/samplefiles/rwmsunix.conf to 9IAS_ORACLE_HOME/Apache/Apache/conf.

   This file contains the RWMS-specific settings that need to be added to the httpd.conf configuration file that was generated during the installation of 9IAS and is located at 9IAS_ORACLE_HOME/Apache/Apache/conf. After replacing all occurrences of 9IAS_ORACLE_HOME and <RWMS_INSTALL_DIR> with your environment's information, append the contents of rwmsunix.conf to the end of httpd.conf and then rename it to rwms.conf. You will also need to look through the file and make the following settings (or verify that they are set correctly).

   ```
   Port  HTTP_PORT
   ServerAdmin <set to an admin email account>
   ServerName SERVER_NAME
   DocumentRoot <INSTALL_DIR>\web_html
   <Directory <INSTALL_DIR>\web_html> (must be same as DocumentRoot)
   ```

4. Copy the file <INSTALL_DIR>/web_html/samplefiles/T2kMotif.rgb to 9IAS_ORACLE_HOME/6iServer/guicommon6/tk60/admin/. This file allows the Forms server to run using the Oracle UTF8 toolset.

Check Web Environment Directory Structure

1. Go to directory <INSTALL_DIR>/web_html.
2. Verify that the following directories exist:
   - log
   - jinitiator
   - gif
   - reptemp
   - help

Miscellaneous Configuration Tasks

1. Add an entry for the database tnsnames.ora file at:
   9IAS_ORACLE_HOME/network/admin/tnsnames.ora
2. Add an entry for the database tnsnames.ora file at:
   9IAS_ORACLE_HOME/6iserver/network/admin/tnsnames.ora

Here is a sample entry:

```
DB_SID=(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=tcp)(host=DB_SERVER_NAME)(Por
t=DB_LISTENER_PORT)))(CONNECT_DATA=(SID=DB_SID)(GLOBAL_NAME=SID.world)))
```

Edit the netscape_11814.html File

The file is located in <INSTALL_DIR>/web_html/jinitiator.

1. Fill in the correct values for SERVER_NAME and PORT.
2. Save the file.

This file will allow jinitiator to be dynamically installed on clients when accessed for the first time.

Modify the Following File

Modify file
9IAS_ORACLE_HOME/6iserver/Forms60/java/oracle/Forms/registry/Registry.dat

- Set the default.icons.iconpath entry near the end of the file:
  default.icons.iconpath=/web_gif/

Copy the Keyboard Mapping Configuration File to the Forms Admin Directory

Copy the file fmrweb.res, found in <INSTALL_DIR>/web_html/samplefiles, to 9IAS_ORACLE_HOME/6iserver/forms60/admin/resource/US/.

Create the RWMS HTML Start Page

1. Copy rwms.html from <INSTALL_DIR>/web_html/samplefiles to <INSTALL_DIR>/web_html.
2. Modify the serverPort setting in the file to point at the port where you are starting your Forms server (refer to ias_web_start – the default is 10001).

Install the Oracle JInitiator Component on the Server

JInitiator 1.1.8.14 is included on the RWMS 12.0 file structure in the directory <INSTALL_DIR>/web_html/jinitiator.

- Check to make sure the file jinit11814.exe is there.

Browser Requirements:

You will need IE 5.0 Netscape 4.7 (or higher version) as your Web browser to use RWMS 12.0.

Test the System

1. Run ias_web_stop then run ias_web_start to bounce the Web processes.
2. Connect the client to the server by issuing:
   `http://SERVER_NAME:HTTP_PORT/rwms.html`

   Note: The first time that you connect to the server, the *jinitiator* will download and install. The *jinitiator* download will occur the first time that each machine accesses RWMS.

3. Restart the browser after jinitiator is installed.

A

Appendix: Oracle 9i Database Creation Scripts

```
###############################################################################
# Oracle 9.2.0.x Parameter file
#
# NOTES: Before using this script:
#    1. Change <datafile_path>, <admin_path>, <utl_file_path>, and <hostname>
#      values as appropriate.
#    2. Replace the word SID with the database name.
#    3. Size parameters as necessary for development, test, and production
environments.
# ----------------------------------------------------------------------
# MAINTENANCE LOG
#
# Date   By     Parameter      Old/New     Notes
# +------+ +---------+ +-----------------+ +-------------+ +-------------+
# 05/17/06 Oracle   NA         NA       creation
#
###############################################################################

# ------------------------------------------------------------------------------
# The following SGA parameters are CRITICAL to the performance of the
# database. The following settings are based off 1GB of allotted memory.
# The SGA is composed of:
#  db_cache_size, log_buffer,java_pool_size, large_pool_size, shared_pool_size
#
db_cach_size          = 256M
java_pool_size         = 150M     # 150M for initial db creation
log_buffer           = 10485760
shared_pool_size        = 150M     # 350M for initial db creation
shared_pool_reserved_size    = 35M      # 10% of shared_pool_size
 ------------------------------------------------------------------------------
# The following parameters do not affect SGA size
# ------------------------------------------------------------------------------
audit_file_dest         = <admin_path>/adump
background_dump_dest      = <admin_path>/bdump
compatible           = 9.2.0
control_files          = (<datafile_path>/control01.ctl
                ,<datafile_path>/control02.ctl)
core_dump_dest         = <admin_path>/cdump
db_block_size          = 8192         # Default is 2k; adjust before db creation,
cannot change after db is created
db_file_multiblock_read_count  = 16          # Platform specific (max io
size)/(block size)

db_name             = SID
job_queue_processes       = 5          # Oracle Retail required; number of cpu's +
1
local_listener         = "(ADDRESS=(PROTOCOL=TCP)(HOST=<hostname>)(PORT=1521))"
nls_calendar          = GREGORIAN
nls_date_format         = DD-MON-RR       # Oracle required
nls_language          = AMERICAN       # default
nls_territory          = AMERICA        # default
open_cursors          = 900          # Oracle required (minimum=900); default is
50
optimizer_features_enable    = 9.2.0
optimizer_mode         = RULE         # Oracle RWMS required
processes            = 500          # Max number of OS processes that can connect
to the db
```

```
query_rewrite_enabled      = TRUE         # Oracle Retail required for function-
based indexes
sessions            = 1500         # set to 3x number of processes
session_cached_cursors     = 100          # default is 0
undo_management         = AUTO
undo_tablespace         = undo_ts
undo_retention         = 1800         # Currently set for 30 minutes; set to avg
length of transactions in secs
user_dump_dest         = <admin_path>/udump
utl_file_dir          = <utl_file_path>

# *** Archive Logging, set if needed ***
#log_archive_dest_1        = 'location=<admin_path>/arch/'
#log_archive_format       = SIDarch%s.log
#log_archive_min_succeed_dest  = 1
#log_archive_start       = TRUE
#log_checkpoint_interval    = 9999999999

-------------------------------------------------------------------------------
--
--- Script:   crdb1.sql
--- Execute as: sysdba
--- Note:    Before running this script:
---         Modify <datafile_path> values.
---         Modify SID values.
---         Adjust sizes for redo logs, TEMP and UNDO tablespaces.
-------------------------------------------------------------------------------
spool crdb1.log

startup nomount pfile=${ORACLE_HOME}/dbs/initSID.ora
create database "SID"
    maxdatafiles 1000
    character set UTF8
  DATAFILE
    '<datafile_path>/system01.dbf' SIZE 500M
     AUTOEXTEND ON NEXT 10M MAXSIZE 2000M
  LOGFILE
   group 1 ('<datafile_path>/redo1a.log') size 1000M,
   group 2 ('<datafile_path>/redo2a.log') size 1000M,
   group 3 ('<datafile_path>/redo3a.log') size 1000M
DEFAULT TEMPORARY TABLESPACE TEMP
    TEMPFILE '<datafile_path>/temp01.dbf' SIZE 5000M
    EXTENT MANAGEMENT LOCAL UNIFORM SIZE 1M
undo tablespace UNDO_TS
    DATAFILE '<datafile_path>/undo_ts01.dbf' SIZE 5000M
;

spool off
exit

-------------------------------------------------------------------------------
---
--- Script:     crdb2.sql
--- Execute as:  sysdba
--- Note:
---     This script installs the data dictionary views
-------------------------------------------------------------------------------
spool crdb2.log

REM # install data dictionary views:
PROMPT Running catalog.sql
@$ORACLE_HOME/rdbms/admin/catalog.sql
PROMPT Running catproc.sql
```

```
@$ORACLE_HOME/rdbms/admin/catproc.sql
PROMPT Running catblock.sql
@$ORACLE_HOME/rdbms/admin/catblock.sql
PROMPT Running profload.sql
@$ORACLE_HOME/rdbms/admin/profload.sql


REM * These privs needed for users to run proper grant code when creating users.
grant select on dba_jobs to public with grant option;
grant select on dba_roles to public with grant option;
grant select on dba_role_privs to public with grant option;
grant select on dba_sys_privs to public with grant option;
grant execute on dbms_rls to public with grant option;

REM * These privs needed to be granted to all due to 9i security changes.
grant select_catalog_role to public;
grant execute_catalog_role to public;
grant execute on dbms_lock to public;
grant execute on dbms_rls to public;

REM * query rewrite privilege needed to create function-based indexes
grant query rewrite to public;

REM * dbms_system is needed for tracing
grant execute on sys.dbms_system to public;

connect system/manager
PROMPT Running pupbld.sql
@$ORACLE_HOME/sqlplus/admin/pupbld.sql

PROMPT Creating PLAN table owned by SYSTEM
@$ORACLE_HOME/rdbms/admin/utlxplan.sql
PROMPT Creating public synonyn for the plan table
create public synonym PLAN_TABLE for SYSTEM.PLAN_TABLE;

disconnect
exit
-------------------------------------------------------------------------------
---
--- Script:     crdb3.sql
--- Execute as:  sysdba
--- Note:
---     This script installs java and xml components
-------------------------------------------------------------------------------
---
spool crdb3.log

REM * Install XDK and XSU
PROMPT altering system to set _system_trig_enabled to false
ALTER SYSTEM SET "_system_trig_enabled"=FALSE SCOPE=MEMORY;

PROMPT Running initjvm.sql to install Java objects
@$ORACLE_HOME/javavm/install/initjvm.sql

PROMPT Running initxml.sql to install XML and XSU
@$ORACLE_HOME/rdbms/admin/initxml.sql

PROMPT Running xmlja.sql to install NCOMP'ed XML Parser
@$ORACLE_HOME/xdk/admin/xmlja.sql

PROMPT Running catjava.sql to install catalog scripts for Java
@$ORACLE_HOME/rdbms/admin/catjava.sql
```

```
PROMPT Creating public synonyms and grants
CREATE PUBLIC SYNONYM XMLQUERY for SYS.DBMS_XMLQUERY;
GRANT EXECUTE ON XMLQUERY TO PUBLIC;

GRANT EXECUTE ON XMLPARSER TO PUBLIC;
GRANT EXECUTE ON XMLDOM TO PUBLIC;
CREATE PUBLIC SYNONYM XSLPROCESSOR for SYS.XSLPROCESSOR;
GRANT EXECUTE ON XSLPROCESSOR TO PUBLIC;

PROMPT Revaliding invalid objects
@$ORACLE_HOME/rdbms/admin/utlrp.sql

spool off

exit
```

B

Appendix: Tablespace Creation Script

```
--------------------------------------------------------------------------------
---
--- Script:    create_rwms_tablespaces.sql
--- Execute as:  sysdba
--- Note:     Before running this script:
---         Modify <datafile_path> values.
---         Modify datafile storage parameters and sizes.
--------------------------------------------------------------------------------
spool create_rwms_tablespaces.log

CREATE TABLESPACE DATA_SMALL
DATAFILE '<datafile_path>/data_small_01.dbf' SIZE 15M AUTOEXTEND ON MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 128K
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE INDEX_SMALL
DATAFILE '<datafile_path>/index_small_01.dbf' SIZE 15M AUTOEXTEND ON MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 128K
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE DATA_MEDIUM
DATAFILE '<datafile_path>/data_medium_01.dbf' SIZE 40M AUTOEXTEND ON MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 4M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE INDEX_MEDIUM
DATAFILE '<datafile_path>/index_medium_01.dbf' SIZE 40M AUTOEXTEND ON MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 4M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE DATA_LARGE
DATAFILE '<datafile_path>/data_large_01.dbf' SIZE 32792K AUTOEXTEND ON MAXSIZE
2000M,
     '<datafile_path>/data_large_02.dbf' SIZE 32792K AUTOEXTEND ON MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE INDEX_LARGE
DATAFILE '<datafile_path>/index_large_01.dbf' SIZE 32792K AUTOEXTEND ON MAXSIZE
2000M,
     '<datafile_path>/index_large_02.dbf' SIZE 32792K AUTOEXTEND ON MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE ahl_dat1
DATAFILE '<datafile_path>/ahl_dat1_01.dbf' SIZE 20M AUTOEXTEND ON NEXT 100M
MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE dat1
DATAFILE '<datafile_path>/dat1_01.dbf' SIZE 100M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
```

```
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE dat2
DATAFILE '<datafile_path>/dat2_01.dbf' SIZE 100M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE dat3
DATAFILE '<datafile_path>/dat3_01.dbf' SIZE 100M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE dat4
DATAFILE '<datafile_path>/dat4_01.dbf' SIZE 50M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE dat5
DATAFILE '<datafile_path>/dat5_01.dbf' SIZE 50M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE ind1
DATAFILE '<datafile_path>/ind1_01.dbf' SIZE 50M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE ind2
DATAFILE '<datafile_path>/ind2_01.dbf' SIZE 130M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE ind3
DATAFILE '<datafile_path>/ind3_01.dbf' SIZE 60M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE ind4
DATAFILE '<datafile_path>/ind4_01.dbf' SIZE 20M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE ind5
DATAFILE '<datafile_path>/ind5_01.dbf' SIZE 20M AUTOEXTEND ON NEXT 100M MAXSIZE
2000M
  EXTENT MANAGEMENT LOCAL UNIFORM SIZE 32M
  SEGMENT SPACE MANAGEMENT AUTO
;
CREATE TABLESPACE RETEK_INDEX
DATAFILE '<datafile_path>/retek_index01.dbf' SIZE 500M
  AUTOEXTEND ON NEXT 500M MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL
  SEGMENT SPACE MANAGEMENT MANUAL
;
CREATE TABLESPACE RETEK_DATA
```

```
DATAFILE '<datafile_path>/retek_data01.dbf' SIZE 500M
  AUTOEXTEND ON NEXT 500M MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL
  SEGMENT SPACE MANAGEMENT MANUAL
;
CREATE TABLESPACE LOB_DATA
DATAFILE '<datafile_path>/lob_data01.dbf' SIZE 50M
  AUTOEXTEND ON NEXT 100M MAXSIZE 2000M
  EXTENT MANAGEMENT LOCAL
  SEGMENT SPACE MANAGEMENT MANUAL
;
```

C

Appendix: Sample NET 8 Files for the Server

listener.ora

Below is a sample listener.ora file.

retek01 specifies the name of the server where the listener is located.

RETEK specifies the name of the Oracle instance that contains the RWMS schema.

```
########################################################################
# File: listener.ora
# Desc: Oracle Net8 listener file.
########################################################################

CONNECT_TIMEOUT_LISTENER = 20
LOG_FILE_LISTENER = LISTENER.log
STARTUP_WAIT_TIME_LISTENER = 0
#-----------------------------------------------------#
# Valid trace levels are: OFF | USER | ADMIN | SUPPORT #
#-----------------------------------------------------#
TRACE_LEVEL_LISTENER = OFF
TRACE_FILE_LISTENER = LISTENER.trc
USER_PLUG_AND_PLAY_LISTENER = OFF
LISTENER =
 (DESCRIPTION_LIST =
  (DESCRIPTION =
   (PROTOCOL_STACK =
    (PRESENTATION = TTC)(SESSION = NS)
   )
   (ADDRESS =
    (PROTOCOL = tcp)(HOST = retek01)(PORT = 1521)
   )
   (ADDRESS =
    (PROTOCOL = IPC)(KEY = RETEK)
   )
  )
 )
#---------------------------------------------------------------------#
# The following SID_LIST_LISTENER entry is required only if you are  #
# connecting to an Oracle database version lower than 8.1.5.     #
#---------------------------------------------------------------------#


SID_LIST_LISTENER =
 (SID_LIST =
  (SID_DESC =
   (SID_NAME = RETEK)
   (<ORACLE_HOME >= /files0/oracle/product/8.0.5)
   (PRESPAWN_MAX = 99)
   (PRESPAWN_LIST =
    (PRESPAWN_DESC =
     (PROTOCOL = TCP)
     (POOL_SIZE = 0)
     (TIMEOUT = 1)
    )
   )
  )
 )
```

```
###########################################################################
#
# Seperate listener process used to handle external procedure
# calls. All of the following entries are required and may require
# some changes to match your system. Oracle suggests that the
# LISTENER_EXTPROC be started by a Unix account other than oracle.
#
###########################################################################

CONNECT_TIMEOUT_LISTENER_EXTPROC = 20
LOG_FILE_LISTENER_EXTPROC = LISTENER_EXTPROC.log
STARTUP_WAIT_TIME_LISTENER_EXTPROC = 0
#-------------------------------------------------------#
# Valid trace levels are: OFF | USER | ADMIN | SUPPORT #
#-------------------------------------------------------#
TRACE_LEVEL_LISTENER_EXTPROC = OFF
TRACE_FILE_LISTENER_EXTPROC = LISTENER_EXTPROC.trc
USER_PLUG_AND_PLAY_LISTENER_EXTPROC = OFF

LISTENER_EXTPROC =
 (DESCRIPTION_LIST =
  (DESCRIPTION =
   (PROTOCOL_STACK =
    (PRESENTATION = TTC)
    (SESSION = NS)
   )
   (ADDRESS =
    (PROTOCOL = tcp)(HOST = retek01)(PORT = 1522)
)
   (ADDRESS =
    (PROTOCOL = IPC)(KEY = extproc_key)
   )
  )
 )


SID_LIST_LISTENER_EXTPROC =
 (SID_LIST =
  (SID_DESC =
   (PROGRAM = extproc)
   (GLOBAL_DBNAME = extproc_agent.world)
   (SID_NAME = extproc_agent)
   (<ORACLE_HOME >= /files0/oracle/product/8.1.5)
   (PRESPAWN_MAX = 99)
  )
 )
```

tnsnames.ora

A tnsnames.ora file is required to connect to any Oracle database on your network. A sample tnsnames.ora is illustrated below. You will need to modify it appropriately to your environment. The extproc_connection_data entry is required along with the LISTENER_EXTPROC entry in the listener.ora file to allow Oracle to access a Unix shell library that is required by one of the stored procedures in the database.

retek01 specifies the name of the server where the listener is located.

RETEK specifies the name of the Oracle instance that contains the RWMS schema.

```
#########################################################################
# File: tnsnames.ora
# Desc: Oracle Net8 TNS Names file.
#########################################################################
RETEK =
 (DESCRIPTION =
  (ADDRESS = (PROTOCOL = TCP)(HOST = retek01)(PORT = 1521))
  (CONNECT_DATA = (SID = RETEK))
 )

RETEK.WORLD =
(DESCRIPTION =
  (ADDRESS = (PROTOCOL = TCP)(HOST = retek01)(PORT = 1521))
  (CONNECT_DATA = (SID = RETEK))
 )

EXTPROC_CONNECTION_DATA =
 (DESCRIPTION =
  (ADDRESS = (PROTOCOL = IPC)(Key = extproc_key))
  (CONNECT_DATA = (SID = extproc_agent))
```

D

Appendix: Database Creation

The following is a sample script that creates the database necessary for the RWMS 12.0. Some new 9i features are being used, like the UNDO tablespace, and specifying the TEMP file at creation time.

Note that there are some outstanding Oracle bugs with the new 9i features. Research new features with Oracle prior to implementing. You may decide not to implement these new features.

Note that a different character set may be required for your database. Check with Oracle regarding compatibility of the character set with Developer 6i, as not all character sets will work with Developer 6i. All scripts following the database creation must be run.

Run as sys

Run all the following as sys, logged in as follows: sqlplus “sys as sysdba”

```
startup nomount pfile=${ORACLE_HOME}/dbs/initRETEK.ora
create database "RETEK"
    maxdatafiles 1000
    character set UTF8
  datafile
    '/files0/oradata/RETEK/system01.dbf' size 100M autoextend on next 100m maxsize
2000m
  logfile
   group 1 ('/files0/oradata/RETEK/redo1a.log') size 10M,
   group 2 ('/files0/oradata/RETEK/redo2a.log') size 10M,
   group 3 ('/files0/oradata/RETEK/redo3a.log') size 10M
default temporary tablespace temp tempfile '/files0/oradata/RETEK/temp01.dbf' size
300M
undo tablespace undo_ts datafile '/files0/oradata/RETEK/undo_ts01.dbf' size 300M;
```

REM * Install Data Dictionary Views

```
PROMPT Running catalog.sql
@$ORACLE_HOME/rdbms/admin/catalog.sql
PROMPT Running catproc.sql
@$ORACLE_HOME/rdbms/admin/catproc.sql
PROMPT Running catblock.sql – optional but useful
@$ORACLE_HOME/rdbms/admin/catblock.sql
PROMPT Running catdbsyn.sql
@$ORACLE_HOME/rdbms/admin/catdbsyn.sql
```

REM * Grant These privs to all Due to 9i Security Changes

```
grant select_catalog_role to public;
grant execute_catalog_role to public;
grant execute on dbms_lock to public;
grant execute on dbms_rls to public;

PROMPT Running pupbld.sql
@$ORACLE_HOME/sqlplus/admin/pupbld.sql
```

REM * Install XDK and XSU

```
PROMPT altering system to set _system_trig_enabled to false
ALTER SYSTEM SET "_system_trig_enabled"=FALSE SCOPE=MEMORY;
```

PROMPT Run initjvm.sql to Install Java Objects

```
@$ORACLE_HOME/javavm/install/initjvm.sql
```

PROMPT Run initxml.sql to Install XML and XSU

```
@$ORACLE_HOME/rdbms/admin/initxml.sql
```

PROMPT Create Public Synonyms and Grants

```
CREATE PUBLIC SYNONYM XMLDOM for SYS.XMLDOM;
CREATE PUBLIC SYNONYM XMLPARSER for SYS.XMLPARSER;
CREATE PUBLIC SYNONYM XSLPROCESSOR for SYS.XSLPROCESSOR;
CREATE PUBLIC SYNONYM XMLTYPE for SYS.XMLTYPE;
GRANT EXECUTE ON XMLDOM TO PUBLIC;
GRANT EXECUTE ON XMLPARSER TO PUBLIC;
GRANT EXECUTE ON XMLTYPE TO PUBLIC;
GRANT EXECUTE ON XSLPROCESSOR TO PUBLIC;
```

REM * Validate all Invalid Java Objects

```
spool javascript.sql

select '"alter java class "'||object_name||'" compile;'
from dba_objects
where object_type = 'JAVA CLASS' and owner = 'SYS' and status = 'INVALID';

spool off
@javascript.sql
```