Oracle® Retail Promotion Intelligence and Promotion Planning and Optimization

Installation Guide
Release 12.0.1

October 2006

ORACLE

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Preface

Audience

This document is intended for administrators of Oracle Retail Promotion Intelligence and Promotion Planning and Optimization.

Documentation Accessibility

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Related Documents

For more information, see the following documents in the Oracle Retail Promotion Intelligence and Promotion Planning and Optimization documentation set:

- Oracle Retail Promotion Intelligence and Promotion Planning and Optimization 12.0.1 Release Notes
- Oracle Retail Promotion Intelligence User Guide
- Oracle Retail Promotion Planning and Optimization User Guide
- Oracle Retail Promotion Intelligence and Promotion Planning and Optimization Operations Guide
- Oracle Retail Promotion Intelligence and Promotion Planning and Optimization Configuration Guide

- Oracle Retail Promotion Intelligence and Promotion Planning and Optimization Sample Dataset Guide

Customer Support

- https://metalink.oracle.com

When contacting Customer Support, please provide:

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

Conventions

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
Note: This is a note.	Notes are used to call out information that is important, but not necessarily part of the procedure.
`This is a code sample`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
hyperlink	Hyperlinks provide a method of opening another document or jumping to another location within the document.

Introduction

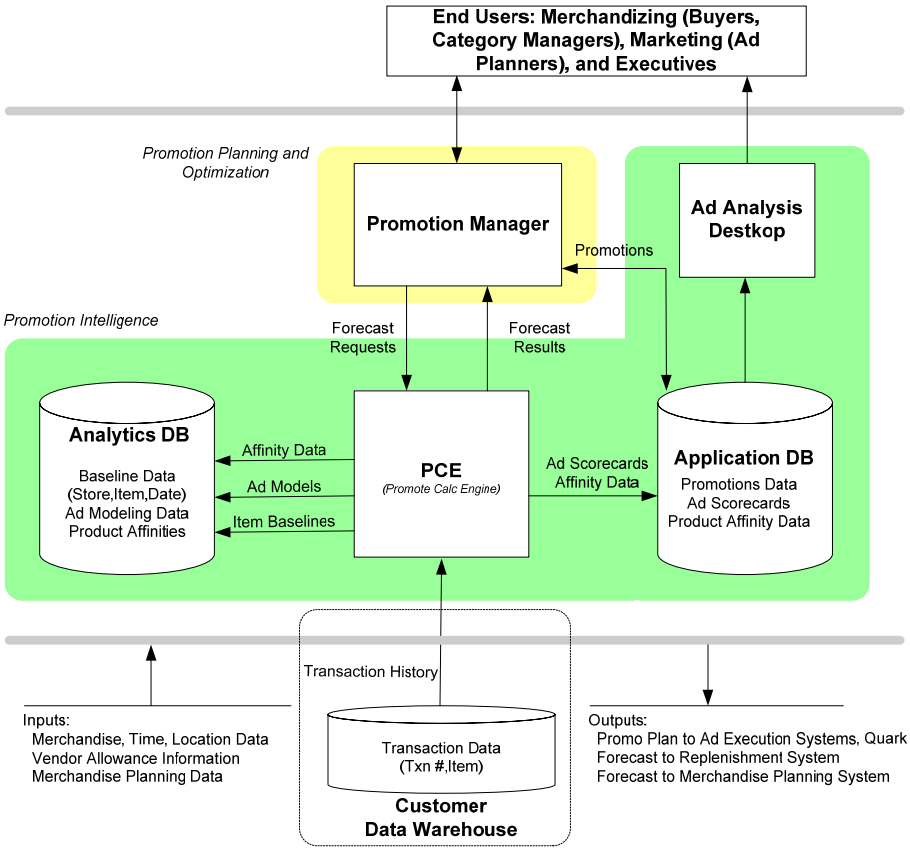
This document provides the installation guide of Oracle Retail Promotion Intelligence product (includes MicroStrategy reports) and Oracle Retail Promotion Planning and Optimization product. The latter requires an installation of Oracle Retail Promotion Intelligence product.

Overview

Oracle Retail Promotion Intelligence product (includes MicroStrategy reports) and Oracle Retail Promotion Planning and Optimization product are applications that offer customers the following:

- Analysis of historical promotional performance
- Centralized data entry
- Providing a system of record for promotion planning
- Promotion forecasting
- Item what-if

The following diagram outlines both products and the relation between them. The 'green' area (Analytics DB + PCE + Application DB + Ad Analysis Desktop) covers Oracle Retail Promotion Intelligence product and the 'yellow' area (Promotion Manager) covers Oracle Retail Promotion Planning and Optimization product.


End Users: Merchandizing (Buyers, Category Managers), Marketing (Ad Planners), and Executives
Promotion Planning and Optimization
Promotion Manager
Ad Analysis Destkop
Promotions
Promotion Intelligence
Forecast Requests
Forecast Results
Analytics DB
Baseline Data (Store,Item,Date)
Ad Modeling Data
Product Affinities
Affinity Data
Ad Models
Item Baselines
PCE
(Promote Calc Engine)
Ad Scorecards
Affinity Data
Application DB
Promotions Data
Ad Scorecards
Product Affinity Data
Transaction History
Transaction Data (Txn #,Item)
Customer Data Warehouse
Inputs:
Merchandise, Time, Location Data
Vendor Allowance Information
Merchandise Planning Data
Outputs:
Promo Plan to Ad Execution Systems, Quark
Forecast to Replenishment System
Forecast to Merchandise Planning System

Oracle Retail Promotion Intelligence

This option installs only the Oracle Retail Promotion Intelligence (including the Promote Calc engine) as a standalone product. The Oracle Retail Promotion Intelligence allows analysis of the historic ad information. It utilizes the Promote Calc Engine which is a Java-based application, run through command-line tools. It can be integrated with customer's tools and utilities for running historical analysis.

This product includes MicroStrategy reports (see chapter 6).

Oracle Retail Promotion Planning and Optimization plus Oracle Retail Promotion Intelligence (everything)

This product includes a graphical user interface that manages the promotion calendar and helps the user to perform what-if analysis. It requires Oracle Retail Promotion Intelligence product to be installed as well and it uses the Promote Calc engine API.

This product includes

- Oracle Retail Promotion Intelligence: the analysis engine, that has a RMI-based API, plus MicroStrategy reports
- Oracle Retail Promotion Planning and Optimization: a Web-based application that has to be installed into Oracle Application Server

If the target installation is Oracle Retail Promotion Intelligence product, refer to Chapter 3. If you plan on installing everything, refer to Chapter 4.

Environment

OAS version

Oracle Application Server 10.1.3 with corresponding patches installed is required. This is needed only if installing Oracle Retail Promotion Planning and Optimization product.

List of the required OAS patches:

Patch/Bug ID	Description
ARU 8611669 (5385619)	Merge of RMIINITIALCONTEXTFACTORY DOES NOT WORK PROPERLY WITH GLOBAL JNDI and STREAMCORRUPTEDEXCEPTION ON REMOTE EJB CALLS
ARU 8583977 (bug 5360581)	JSP FAILS DURING REDEPLOYMENT OF APPLICATIONS USING STATE REPLICATION
ARU 8530265 (bug 4968168)	ClassLoader : SETTING CONTEXT CLASSLOADER TO A SPECFIC LOADER BREAKS DELEGATION MODEL IN OC4J
ARU 8626504 (bug 5365375)	"SESSION HAS BEEN REAPED" WHEN HTTPSESSIONLISTENER IS CALLED

Patches can be downloaded from http://aru.us.oracle.com:8080/

JDK version

Sun JDK 1.4.2_08 (32 bit) or above for OAS, JRockit 8.1 SP5 for WLS is required.

Oracle RDBMS version

Oracle Database 10g Release 10.2.0.1.0 is required.

Oracle RDBMS client version

Oracle Database 10g Client Release 10.2.0.1.0 is required. The Oracle RDBMS client has to be installed on the same server where OAS is running and where Oracle Retail Installer is to be run. Note that full client installation is required to run the installer.

MicroStrategy version

MicroStrategy version 8.0 is required.

Environment variables

The installation process relies on the following:

- JAVA_HOME and PATH environment variables point to the desired version of Java
- PATH environment variable includes a path to an appropriate Oracle DB client (installation process needs DB utilities, e.g., sqlplus)
- On Linux, ORACLE_HOME has to be set
- On Linux, LD_LIBRARY_PATH has to point to ORACLE_HOME/lib directory

Database configuration

Users and Permissions

Two users need to be created for Promote application. One Oracle User is for application database (Promote) and another DB user is the RDM user, both on the same oracle instance.

User	Privileges
Promote	Connect

	Resource Create/drop table Create/drop/rebuild index Select any table Query rewrite Create materialized view Create/recompile/drop trigger Create/recompile/drop package Create view Execute any procedure getClassLoader Java Runtime permission
RDM	Connect Resource Create/drop table Create/drop/rebuild index Select any table Select any table at Promote User schema Query rewrite Create materialized view Drop any table Create/recompile/drop trigger Create/recompile/drop package Create view Execute any procedure Execute any procedure at Promote User schema

Tablespaces

The following tablespaces are required for Promote application to work:

Tablespace	**Description**
DATA_01	Required. The default tablespace for Promote tables.
INDEX_01	Required. Tablespace for Promote indexes.

Disk space

The Promote Calc Engine stores its analytics information on disk in an internal, binary, file format. A proper capacity planning needs to be done to determine the disk storage requirements to support the analytics DB.

Before install

1. Make sure that your deployment destination is empty and backed up, as the installer will overwrite files
2. If installing Oracle Retail Promotion Planning and Optimization (GUI) product, the installer must be run on the same machine as your application server
3. Make sure that you can access the whole Installation (Oracle Retail Promotion Intelligence or Oracle Retail Promotion Planning and Optimization) CD image
4. If installing Oracle Retail Promotion Planning and Optimization (GUI) product, un-deploying the modules, previously installed to OAS, is beneficial

Install Oracle Retail Promotion Intelligence (standalone)

Source files

Insert the Oracle Retail Promotion Intelligence Installation CD and make the installation root directory (the one that has install.cmd/install.sh script) current.

install.properties

Installation properties file is used by installer to find important information about the target system. Navigate to sample.install.properties file on Promote Installation CD. Copy it to your system and tailor the sample installation properties file to your situation. Important items include:

- installdir
- install.appserver.default has to be set to 'none', i.e. install.appserver.default=none . This will prevent installer from looking for an application server
- database.commondb.oracle.* and database.rdmdb.oracle.* properties

Run installation

The Promote installation creates the Promote directory structure, populates it with appropriate files and when the installation finishes, it generates a log file and a properties files. Start the installation in one of the following modes.

Silent install mode

No-GUI install mode is achieved by supplying the installer with –s switch. This mode is non interactive, with minimal console output during installation. Sample command may look like (on Linux):

./install.sh –p <path-to-install.properties> -s

GUI install mode

Graphical display of install options enables easy identification and modification of configuration properties. To modify or just check the installation properties through GUI screens, start the installer without –s switch. Sample command may look like (on Linux):

./install.sh –p <path-to-install.properties>

Restart the server

Restart OAS instance:

<OAS-root>/opmn/bin/opmnctl stopall

<OAS-root>/opmn/bin/opmnctl startall

Deploy sample data

Continue to Chapter 5 for deployment of the sample data

Install MicroStrategy Reports

Please refer to the chapter 6.

Install Oracle Retail Promotion Planning and Optimization plus Oracle Retail Promotion Intelligence

Application Server changes

Do the following changes to your Oracle Application Server configuration:

- Navigate to <OAS-root>/opmn/conf/opmn.xml. In 'ias-component id="OC4J"' section, modify the 'value' property of 'category id="start-parameters"' tag and add to JVM arguments a path to the config root: -Dcom.profitlogic.configroot=<path-to-config-root>, plus JVM switches to increase JVM-accessible memory. At least '-XX:MaxPermSize=256m -Xms256m -Xmx512m' should be specified. As needed, the memory available to OAS can be increased
- Set the OAS administrator password to oc4jadmin
- Navigate to <OAS-root>/j2ee/home/config/server.xml. In application-server section, add a new attribute 'global-jndi-lookup-enabled' and set it to 'true'. It should look like this:

<application-server xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" ...

global-jndi-lookup-enabled="true"

schema-major-version="10" schema-minor-version="0" >

Source files

Insert the Oracle Retail Promotion Planning and Optimization Installation CD and make the installation root directory (the one that has install.cmd/install.sh script) current.

install.properties

This step is similar to the one, described in section 3.2, with the addition of the following properties:

- oracle.home – must be set to <OAS-root>/j2ee/home
- oracle.server.address, e.g.: localhost
- oracle.admin.port, e.g. 6003
- oracle.admin.userid, oracle.admin.password
- oracle.instance.name
- oracle.opmn.enabled – set to "yes"
- oracle.multicast.default – set this to at least 45536-<the number of apps already deployed>
- suite.host=localhost
- suite.port, e.g. 7780
- flex.license – if sample dataset is to be installed, this property has to be set to a Adobe Flex serial number

Values of the OAS admin port can be found in <OAS-root>/opmn/conf/opmn.xml, in <opmn><notification><port> configuration area, i.e. <port request="6003">.

The HTTP port (suite.port) can be found by running opmn utility: '<OAS-root>/opmn/bin/opmnctl status –l'

Run installation

This step is equivalent to the one described in section 3.3

Silent install mode

This step is equivalent to the one, described in section 3.3.1

GUI install mode

This step is equivalent to the one, described in section 3.3.2

Post-install update

Set server-wide transaction timeout value:

- Log into Enterprise Manager (at http://host:port/em/) and go to OC4J home -> Administration -> Transaction Manager (JTA) -> Administration. Change Transaction Timeout value to 180. Note that this change affects all the applications deployed to this OAS instance.

Install Adobe Flex license

To install Adobe Flex license, utilize the following script:

<path-to-the-installed-app>/modules/tools/license-flex.sh

This script expects two parameters: path to OAS application home: <OAS-root>/j2ee/home and an actual license number, e.g:

<path-to-the-installed-app>/modules/tools/license-flex.sh <OAS-root>/j2ee/home 123-123-123-123

Alternatively, the license can be installed as a part of sample data set deployment (Chapter 5). install.properties will have to include 'flex.license' property, set to the actual serial number.

Restart the application server

Restart the application server. In OAS, it is done by running (in <OAS-root>/opmn/bin), './opmnctl stopall' ; followed by './opmnctl startall'. The status can be checked by './opmnctl status –l'

Deploy sample data

Continue to Chapter 5 for deployment of the sample data

Start the engine

Navigate to <path-to-the-installed-app>/modules/pce/bin. In a Bash shell, start the rmiServer.sh script. Incorporate this script into your system startup procedure. Note that this script assumes that Java interpreter is in the PATH.

Verify

Verify that Oracle Retail Promotion Planning and Optimization product works: open http://host:port/promote/Promote.mxml in the browser.

Install Standard Reports

Please refer to the chapter 6.

Deploy sample data

KSInc

Sample data is delivered as a part of the Installation CD (Oracle Retail Promotion Intelligence or Oracle Retail Promotion Planning and Optimization product). You can find it at <install-dir>/modules/pce/sample.

Run deploy.sh

Navigate to <install-dir>/modules/pce/sample and run the following script in a Bash shell: deploy.sh. This script has the following features:

- It works without any environment variables or assumptions about what is in the PATH
- It can install templates, users, roles, Adobe Flex serial number, etc.
- Existing environment variables take precedence over defaults, and command line options take precedence over the environment variables

This script can be used to load and process data in steps. Two targets are provided to run all the steps needed:

- all – to load data, templates, users, compute statistics, etc. To use with Oracle Retail Promotion Planning and Optimization product
- pce_all - to load data, compute statistics, etc (no steps for loading users, templates, images). To use with Oracle Retail Promotion Intelligence product

Installing MicroStrategy

Refer to “Price 4.5 Installation Guide” document, chapter 7 for instructions on installing and configuring MicroStrategy product. The only difference is that MicroStrategy metadata archive file is located at <install-dir>/modules/pce/reporting and has the following name: “PromoteReportsMetadata.zip”.

To install standard reports, please refer to MicroStrategy 8 Installation and Configuration Guide. The Web-application file (WAR file) is located at <install-dir>/modules/pce/reporting and has the following name: “WebMstr8_OraclePromote.war”

Third Party Licenses

Overview of Third-Party Licensing

The distribution of Promote includes third-party code. This chapter provides licensing information for all third-party open source applications included with Promote.

Third-Party Open Source Licenses

The following list details the open source licenses that are fully documented in the Price 4.5.1 Installation Guide.

- "Apache Jakarta Commons" on page 131 of the Price Installation Guide
- "Apache Jakarta Taglibs 1.0" on page 135 of the Price Installation Guide
- "Apache Xalan 2.4.1" on page 139 of the Price Installation Guide
- "Apache Xerces 1.4.1" on page 140 of the Price Installation Guide
- "Castor 0.9.5" on page 141 of the Price Installation Guide
- "DB ObJectRelationalBridge (DB-OBJ) 1.0.1" on page 142 of the Price Installation Guide
- "Jakarta Regexp 1.2" on page 146 of the Price Installation Guide
- "Jakarta Struts 1.2" on page 150 of the Price Installation Guide
- "Jakarta Velocity 1.2" on page 154 of the Price Installation Guide
- "Log4J 1.2.8" on page 163 of the Price Installation Guide
- "ORO 2.0.8" on page 167 of the Price Installation Guide
- "XDoclet 1.2.1" on page 175 of the Price Installation Guide

In addition to these licenses, the following apply specifically to promote.

Apache Jakarta Commons

Apache Commons commons-math 1.0
Apache Commons commons-lang 2.0
Apache Commons commons-collections 2.1.1
Apache Commons commons-beanutils 1.1.6
Apache Commons commons-pool 1.1

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cairngorm 0.9

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1.1.1 Log4f

log4f 0.8

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