ORACLE
INSURANCE

Oracle® Insurance Policy Administration

Version Upgrade Utility

Version 9.6.0.0

Documentation Part Number: E35883_01

January, 2013

Copyright © 2009, 2013, Oracle and/or its affiliates. All rights reserved.

Trademark Notice

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

License Restrictions

Warranty/Consequential Damages Disclaimer

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

Warranty Disclaimer

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

Restricted Rights Notice

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

Hazardous Applications Notice

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Third Party Content, Products, and Services Disclaimer

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Table of Contents

INTRODUCTION **4**
Customer Support 4
Prerequisites 4
BACKWARD COMPATIBILITY **5**
Issues Addressed with this Utility 5
Compatibility Issues for 9.4.0 to 9.5.1 5
Compatibility Issues from 9.5.1 to 9.6.0 6
UPGRADE PROCESS OVERVIEW **7**
High Level Steps In Upgrade Process 7
UTILITY INSTALLATION **8**
Security Set Up 8
Deploy the Upgrade Utility 8
Create the Upgrade Environment 9
EXECUTING THE UPGRADE **10**
Steps to Run the Upgrade Utility 10
Reviewing Results 12
Viewing Upgrade Logs in the Utility 12
Database Tables 12
TROUBLESHOOTING **13**
Database Connection Failure 13
Incorrect Current System Version 13
Other Errors 13

INTRODUCTION

The OIPA upgrade utility is a rich client application framework that provides OIPA application upgrade automation. The utility can perform and track a variety of database changes that are necessary to move between application versions. Changes may include database schema updates, required system and business data modifications and business rule syntax updates. These changes may be necessary to support new functionality or non-backward compatible rule engine changes.

The necessary changes for moving from the prior release to the current release are included with the installation of the utility.

This guide describes the overall upgrade process, installation and execution of the utility, along with details about the utility's operation. The upgrade utility supports upgrades from 9.4.0.0 to 9.6.0.0. Make sure to begin the upgrade process from your current version.

Customer Support

If you have any questions about the installation or use of our products, please visit the My Oracle Support website: https://support.oracle.com, or call (800) 223-1711.

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Prerequisites

- database and IVS installed according to Oracle's Database Installation documentation
- Web Application Utility version 9.5.0.0 or greater, deployed and configured (as described in the Rules Palette Set-Up Instructions)
- Microsoft Windows 2000 or later
- Hostname and port for the Rules Palette Web Application Utility
- Rules Palette credentials with Security Manager or Super privileges
- OIPA application database and IVS database user name and password

BACKWARD COMPATIBILITY

While Oracle strives to maintain backward compatibility between releases of OIPA, some new features and enhancements will necessitate changes to business rule syntax or structure that are not compatible with previous versions. One of the main purposes of the upgrade utility is to assist in bringing rule sets developed on prior versions up to compatibility with the latest release of OIPA. Some data structures and content may also need to be modified due to a non-backward compatible feature. The utility addresses those situations as well. Please refer to the OIPA release notes for a complete explanation of new features and how they may affect business rules and data.

Issues Addressed with this Utility

The following enhancements to version 9.4.0 through 9.6.0 of OIPA are not compatible with previous versions. The upgrade utility will remedy compatibility issues for each of the areas identified below.

Compatibility Issues for 9.4.0 to 9.5.1

1. QuoteScreen Rule
    - The ALLOWQUOTE attribute in transaction rules has been deprecated.
    - An attached business rule, QuoteScreen, now provides quoting functionality.

      Utility Solution

      The utility will automatically create an attached QuoteScreen rule for any transaction with the ALLOWQUOTE attribute that does not already have an attached QuoteScreen rule. It will also remove the attribute regardless of its value from the transaction rule where applicable.
2. Fund Enhancements
    - The AsFundGroup table has been deprecated and replaced with AsFundRelation and AsFundRelationField tables.

      Utility Solution

      The utility will create the new table structure and migrate data from the old table to the new tables before deleting the old table structure.
3. PolicyScreen Rule
    - The AllowNoPercent tag has been deprecated and the AllowPercent tag is used in its place.

      Utility Solution

      The utility will update all PolicyScreen rules, changing the AllowNoPercent tag to the AllowPercent tag and inverting the value of the tag. Functional behavior will remain the same as this is a syntax change only.
4. CopyToPendingActivityFields Rule
    - The CopyToPendingActivityFields rule has been enhanced. The Fields element is now a child element of the ActivityFields element within the rule.

      Utility Solution

      The utility will update all CopyToPendingActivityFields rules to make them compliant with the new syntax.

5. PrecisionValues Rule
    - The UnitValuePrecision rule has been deprecated and replaced with the PrecisionValues rule.

      Utility Solution

      The utility will implement the PrecisionValues rule to match the functionality of any existing UnitValuePrecision rules and then delete the UnitValuePrecision rules.
6. Database Schema Changes
    - A variety of schema updates are required for this release including table, column, index, constraint and data changes.

      Utility Solution

      Schema changes are automatically applied. Instructions for tracking these changes are provided in the Reviewing Results section.

Note: Refer to the Backward Compatibility guide in the OTN library for release 9.5.0.0 for complete details on backward compatibility support. Navigate to http://www.oracle.com/technetwork/documentation/insurance-097481.html#Policy and select the library for the release you are using.

Compatibility Issues from 9.5.1 to 9.6.0

1. Comment Enhancements
    - A variety of buttons will be removed from AsAuthTransactionButton table. The <AllowComments> element will be removed from existing configuration. The global version of the <CommentScreen> rule will be updated to include a <DefaultComment> element.
2. Unitized Funds
    - The FundListForAllocation business rule will be modified. The existing transaction XML will be updated to add <FundLevels> parent element to all <FundLevel> elements.

Note: Refer to the Backward Compatibility guide in the OTN library for release 9.6.0.0 for complete details on backward compatibility support. Navigate to http://www.oracle.com/technetwork/documentation/insurance-097481.html#Policy and select the library for the release you are using.

UPGRADE PROCESS OVERVIEW

Explanations of the high level steps involved in the upgrade process are provided below.

High Level Steps In Upgrade Process

1. Back up the target upgrade environment application database and IVS. **This is very important.** If any portion of the upgrade fails, then you will need to restore the current environment from this backup before re-running the upgrade utility.
2. Install the upgrade utility. The utility is located on the Oracle Software Delivery Cloud (https://edelivery.oracle.com/) in the Oracle Insurance Policy Administration 9.6 Media Pack. It is listed as a separate download.
    a. Create the Utility Configuror security role in the older version of the Rules Palette you already have running and associate it to a new or existing Rules Palette user.
    b. Unzip the OIPA Version Upgrade Utility. (where is this utility found? Is it on Oracle Cloud with the release software?)
    c. Create the upgrade environment in the upgrade utility.
3. Execute the upgrade utility.
4. Review the results.
5. Install a new version of the Rules Palette application. (The Installation guide for your platform is included in the Documentation Library for the 9.6 release on the Oracle Technology Network (OTN) website).
6. Log in to the Rules Palette and run the Version Generator.
7. Install a new version of the OIPA application. (The Installation guide for your application server is included in the Documentation Library for the 9.6 release on the Oracle Technology Network (OTN) website.
8. Test the environment.

Note:	**Executing the upgrade utility will modify the rules and the database structure for the target environment only. Currently, the utility does not support release management, so it will have to be executed in all environments in your production pipeline.**

UTILITY INSTALLATION

Utility installation consists of three main tasks. Each task is described in detail below.

Security Set Up

The upgrade utility requires a new Utility Configuror security role to be defined in the Rules Palette. It is recommended that you create a new Rules Palette user specifically for this role.

1. Open the Rules Palette and log in to the target upgrade environment as a Super user or Security Manager.
2. Create a security role with the name **Utility Configuror**. No specific privileges need to be added. The role must simply be named Utility Configuror. Make sure to save the new role.
3. Create a new user and make a note of the username and password chosen. This will be needed in the Create Upgrade Environment section of the utility installation. Assign the new user the Utility Configuror security role. Make sure to save the new user.

Note:	**For detailed instructions on creating a role and user, click Help > Palette Help inside the Rules Palette application and select the Security > Rules Palette Security section in the Contents tab.**

Deploy the Upgrade Utility

The upgrade utility is delivered as a stand-alone java application packaged in a zip file, which includes the Windows Java runtime environment.

1. Locate the OIPAUtility.zip file in the OIPA 9.6 media pack on Oracle's Software Delivery Cloud. Open it using a standard zip utility (such as WinZip) and extract it to the directory of your choosing. This directory will be referred to later as <install_dir>.
2. Download the swing-x 3rd party libraries and copy them to the ext folder for the utility.
    a. Navigate to : http://java.net/downloads/swingx/releases/1.0/.
    b. Right-click **swingx-1.0.zip** and select **Save** to save the zip file to your local machine.
    c. Open the swingx-1.0.zip file and navigate to **swingx-1.0** > **dist**.
    d. Select the **swingx-1.0.jar** and **swingx-beaninfo-1.0.jar** files and copy them to the **<install_dir>\OipaUtility\oipa_utility\modules\ext** folder.
3. Launch the upgrade utility.
    a. Navigate to **<install_dir>\OIPAUtility\bin**.
    b. Double-click **oipa_utility.exe**.

Create the Upgrade Environment

With the upgrade utility deployed and launched, you are now ready to create an environment for the upgrade. Contact your release manager or system administrator for any unknown required fields.

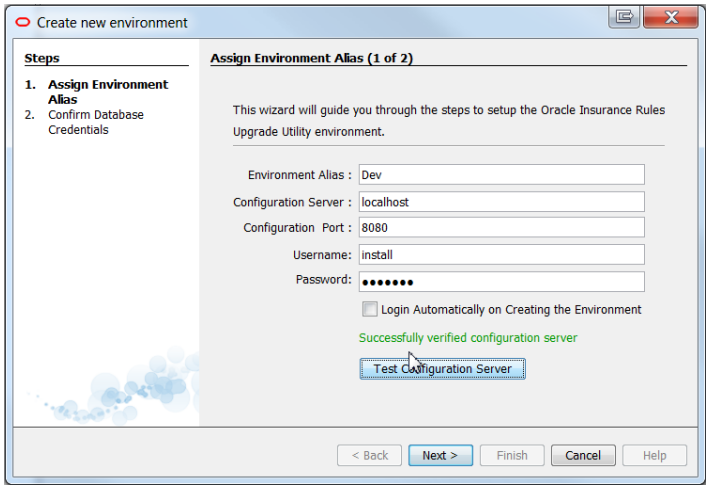
1 In the UtilitiesExplorer Window, right-click and select **Create New Environment**. The environment wizard will launch.

2 Type the following information in the fields provided in step one of the wizard.

   a. **Environment Alias**: type the name for the target environment (e.g. Development, DEV1, TEST, etc.).

   b. **Configuration URL**: type the configuration URL. This URL contains the hostname and port information. This is the same Configuration URL used to access the Web Application Utility.

   c. **Username and Password**: type the username and password created for the Utility Configuror role.



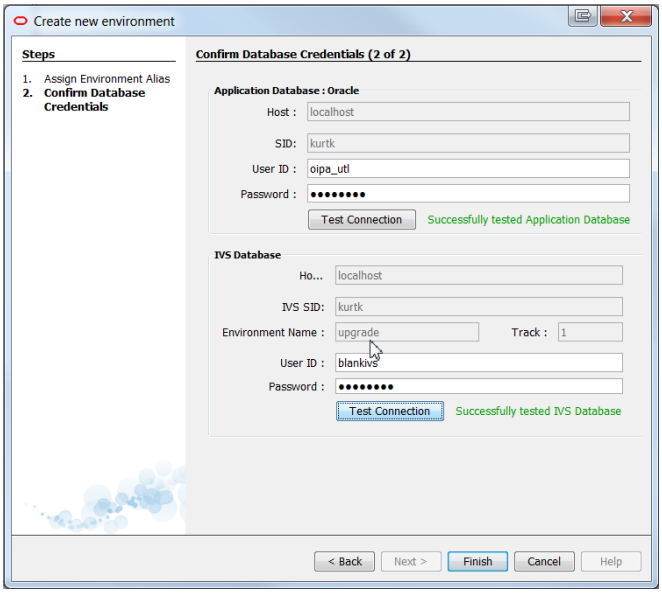
3 Click **Test Configuration Server.**

4 If successful, click **Next**. Otherwise ensure the server, port, username and password are correct.

5 Enter database credentials for the application and IVS databases (these will be distinct).

6 Click **Test Connection** for each.

7 Click **Finish**.

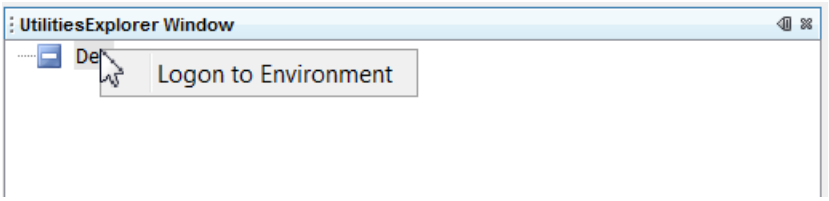


EXECUTING THE UPGRADE

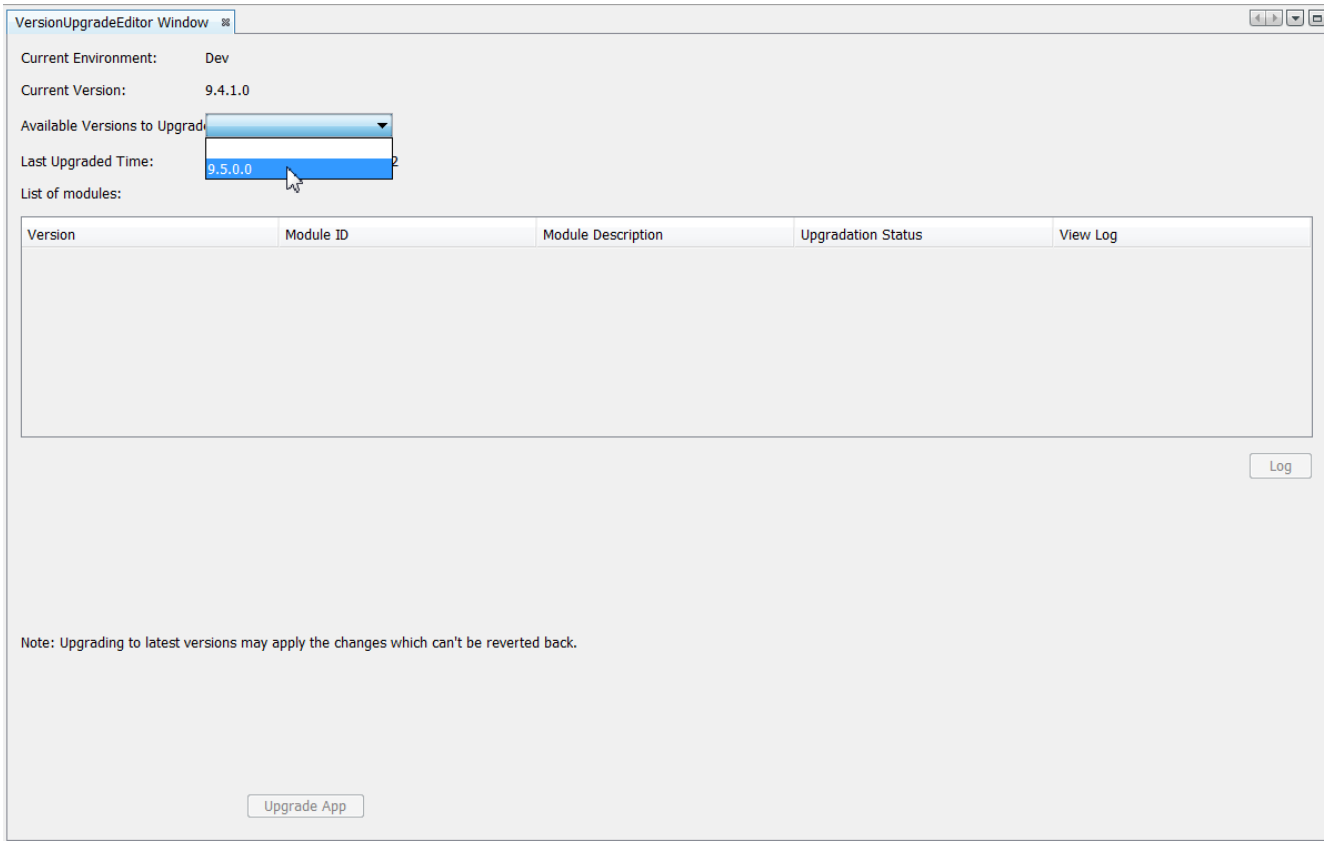
Executing an upgrade is an all-in-one task to incrementally move from one version to the next. In order to ensure rule and database compatibility, each portion of the upgrade must complete successfully in order for the environment to be considered upgraded to the desired version. The steps below explain how to execute the upgrade.

Steps to Run the Upgrade Utility

1. Launch the upgrade utility.
    a. Navigate to **<install_dir>\OIPAUtility\bin**.
    b. Double-click **oipa_utility.exe**.
2. In the UtilitiesExplorer Window, right-click the target upgrade environment and select **Logon to Environment**.

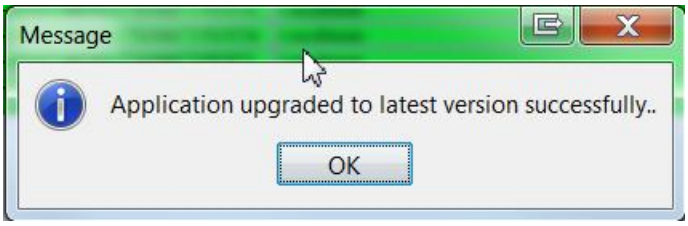


3. If this is the first time an upgrade is being performed in this environment, you will be asked to select the current system version. Select the version number corresponding to the version you are **upgrading from**.
4. The VersionUpgradeEditor Window will now appear. In the **Available Versions to Upgrade** drop down, select the version you are **upgrading to**.



Note:	**You should only select the next greatest version number from your current version. It is recommended to apply upgrades incrementally and create a backup of the database between each upgrade.**

5. The list of modules will populate, showing the upgrade actions to be performed.
6. Click **Upgrade App** to begin the upgrade. A progress window will appear letting you know that permanent changes are actively being applied to the database.
7. When the upgrade process is complete you will receive a confirmation message. Do not interrupt the process by closing the utility until a confirmation message is received.



8. In the case of an error, an error message confirmation will be shown. Refer to the Troubleshooting section for additional details.
9. Click **OK** on the success confirmation window. In the VersionUpgradeEditor window, Current Version will reflect the database compatibility version of the target environment.
10. Installation of the new version of the OIPA application is complete and testing may now proceed.

Reviewing Results

There are multiple methods available to review the operations that the upgrade utility has performed on the database. The upgrade utility provides a front end for viewing these results.

Viewing Upgrade Logs in the Utility

After a successful upgrade, the VersionUpgradeEditor window list of modules shows each individual task the utility performed. For any task, you can click the **View Log** button to view details of that task only. To view a comprehensive log of all changes for the upgrade, you can click the **Log** button on the lower right hand side of the VersionUpgrade editor window.

Database Tables

A number of new tables are added to the OIPA schema in order to capture the current status of database compatibility and the results of running the upgrade utility.

- **AsSystemVersion**
  - Tracks the OIPA versions where the utility upgraded the database.
  - The current database compatibility version can be found by querying for the SystemVersion column that corresponds to the latest CompletedGMT column.
- **AsUpgradeModule**
  - Tracks the individual upgrade modules that have been executed on the database instance.
  - Modules may include database update scripts or Java modules executed within the utility for rule modification and complex database modification.
- **DatabaseChangeLog**
  - Tracks database script execution only.
  - Used by the utility to ensure database modification dependency integrity.

TROUBLESHOOTING

If the upgrade utility fails at any point during the upgrade, the database will be considered unusable. Failures could happen for a number of reasons. To understand the nature of the failure, click the **View Log** button for the module that failed in the VersionUpgradeEditor window.

Database Connection Failure

If the network connection to the database server is interrupted during the upgrade, it will fail and produce a message. The log file will indicate an error message relating to connectivity from the database driver.

Resolution: Restore the database from back-up and re-run the upgrade utility. Investigate network integrity between the utility execution machine and the database.

Incorrect Current System Version

If the current version of the database is not correctly set while logging in to the target environment the first time, then SQL scripts could fail to execute due to dependencies not being met. The log file will indicate a failure to execute SQL query or statement.

Resolution: Restore the database from the backup, recreate the environment in the utility with the correct current version, and re-run the upgrade utility.

Other Errors

Error information is captured in two primary locations. The first is in the database and is viewable within the utility, as explained in the **Reviewing Results** section.

If the utility produces a Java error, it will be captured in the utility logs. These are located in the **<user_directory>\Oracle\oipa_utility\OIPAUtility\dev\var\log** folder. On Windows Vista and newer machines, this directory is typically: **C:\Users\<user_name>\AppData\Roaming\Oracle\oipa_utility\OIPAUtility\dev\var\log\.**

If you are unable to determine the cause of an error, please contact Oracle Support as indicated in the Introduction section of this document, and be prepared to provide the log files mentioned above.