ORACLE
INSURANCE

Oracle Insurance IBRU SoftRater User Guide

Version 3.12

July 2009

Oracle Insurance Insbridge Rating and Underwriting SoftRater User Guide

Version 3.12

Part # E15009-01

Library #E15014-01

Fomerly P01-721-13

July 2009

Copyright © 2008, Oracle. All rights reserved.

Primary Authors: Mary Elizabeth Wiger

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS
Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are “commercial computer software” or “commercial technical data” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software—Restricted Rights (June 1987). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee’s responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

Oracle, JD Edwards, and PeopleSoft are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Contents

Figures **4**

Preface **5**
Audience *5*
System Requirements *5*
Manual History *5*

CHAPTER 1 ..... **6**
INTRODUCTION TO SOFTRATER 6
SoftRater Switches *6*
Web Services Interfaces *7*
Sample SOAP Request *7*

CHAPTER 2 ..... **9**
INTRODUCTION TO SOFTRATER CACHING 9
What is a Cache Hit? *9*
What is a Cache Miss? *10*
When is Information Removed from the Cache? *11*
Cache Use Exceptions *11*

CHAPTER 3 ..... **12**
SUPPORT 12

Index **13**

Figures

Figure 1 SoftRater Switches 7
Figure 2 Sample SOAP Request 8

Preface

Welcome to the *Oracle Insurance Insbridge Rating and Underwriting SoftRater User Guide*. This guide describes the concepts and usage of Oracle Insurance Insbridge Rating and Underwriting (IBRU) SoftRater (SoftRater). SoftRater is the rating engine portion of the IBRU system. The SoftRater rating engine is updated with logic created in RateManager and is the run-time environment for a company's rates. The engine is multi-platform and has the ability to process rates in both a transactional and batch mode.

Audience

This guide is intended for SoftRater system administrators who are tasked with administering SoftRater. Readers of this guide should be familiar with XML, HTTP.

System Requirements

System requirements for the Oracle Insurance Insbridge Rating and Underwriting system can be found in the Oracle Insurance Insbridge Rating and Underwriting Recommended Operating Environments for Hardware and Software Guide available from Oracle Insurance Support or Oracle Insurance Sales Representative.

Manual History

New editions incorporate any updates issued since the previous edition.

Edition	Publication Number	Product Version	Publication Date	Comment
1st Edition	P01-721-01	V 3.5	November 2005	
2nd Edition	P01-721-02	V 3.5	June 2006	Update
3rd Edition	P01-721-03	V 3.6	June 2006	Update Version
4th Edition	P01-721-04	V 3.7	December 2006	Update Version
5th Edition	P01-721-05	V 3.8	July 2007	Update Version
6th Edition	P01-721-06	V 3.8.3	October 2007	Update Version
7th Edition	P01-721-07	V 3.8.5	November 2007	Update Version
8th Edition	P01-721-08	V 3.8.7	January 2008	Update Version
9th Edition	P01-721-09	V 3.8.8	March 2008	Update Version
10th Edition	P01-721-10	V 3.9	May 2008	Update Version
11th Edition	P01-721-11	V 3.10	September 2008	Update Version
12th Edition	P01-721-12	V 3.11	December 2008	Update Version
13th Edition	P01-721-13	V 3.12	July 2009	Update Version

1

Introduction to SoftRater

SoftRater is the rating engine, or "black box", portion of the IBRU System. It executes the rating and underwriting instructions defined in RateManager. For more reference information on using a specific type of SoftRater engine, please see:

- SoftRater for Windows Reference Guide
- SoftRater for WebSphere Reference Guide
- SoftRater for WebLogic Reference Guide
- SoftRater for JBoss Reference Guide

SoftRater Switches

You can override default values/properties in the input XML. This is done using SoftRater "switches". Multiple "switches" can be used at the same time. The available "switches" are:

<rate> node

renc – Allows the user to instruct SoftRater to not encode XML characters that are not considered valid XML characters. These characters are:

- Ampersand (&)
- Less than sign (<)
- Greater than sign (>)
- Double quotation marks (")
- Single quotation mark (')

By default, these characters are encoded in the result XML. For example, the ampersand is encoded as &. To override this default behavior, add the attribute renc="1" to the rate node.

```
<rate lob="1" renc="1">
```

env_def – Allows the user to override the default rating environment. By default, SoftRater rates against the default environment, as set up in the Insbridge Framework Administrator (see Introduction to Environments in the Insbridge Framework Administrator section). To rate against a different environment, add the attribute env_def="Env_Name" to the rate node, where Env_Name is the name of the environment you wish to rate against.

```
<rate lob="1" env_def="Env_Name">
```

<program> node

result_def – Allows the user to override the default result mapping group. By default, SoftRater uses the group that is set up as the default in RateManager. To use a different result group, add the attribute result_def="Result_Code" to the rate node, where Result_Code is the result code shown in RateManager.

<program parent_id="123" program_id="1" program_ver="1" result_def="B734727175"/>

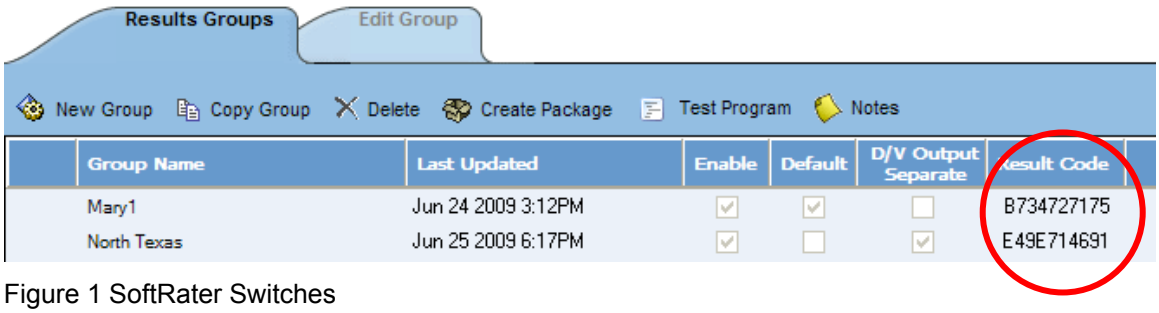


Figure 1 SoftRater Switches

In order for you to be able to use a result group, it must have been **Enabled** when the package was created (see the RateManager topic Editing Result Group Options).

Web Services Interfaces

SoftRater provides Web Service Interface for a SoftRater Rating *X*Engine. The following operations are supported. For a formal definition, please review the Service Description found on your IBFA instance at http://<yourserver>/ibfa/connectors/softrater.asmx?.

- **Ping** – This will obtain the status of the Insbridge *X*Engine.
- **ProcessAsyncMessage** – Submit Rate Request to our Insbridge *X*Engine Rate Broker.
- **ProcessCustomMessage** – Obtain Rates from our Insbridge *X*Engine using custom xml. You may also use this method for an Insbridge.XML request.
- **ProcessMessage** – Obtain Rates from our Insbridge *X*Engine.
- **ReceiveAsyncMessage** – Obtain Rate Results from our Insbridge *X*Engine Rate Broker.

Sample SOAP Request

The following is a sample SOAP request and response. The placeholders shown need to be replaced with actual values.

```
POST /ibfa/connectors/SoftRater.asmx HTTP/1.1
Host: <yourserver>
Content-Type: text/xml; charset=utf-8
```

```
Content-Length: length
SOAPAction: "http://insbridge.net/wsi/Connector/SoftRater/ProcessMessage"

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <soap:Header>
      <MappedRateRequestxmlns="http://insbridge.net/wsi/Connector/SoftRater>
         <Lob>int</Lob>
         <Subscriber>int</Subscriber>
         <Program>int</Program>
         <Version>int</Version>
         <InputMappingIdentifier>string</InputMappingIdentifier>
         <InputMappingType>NONE or GLOBAL or LOCAL or CUSTOM</InputMappingType>
         <OutputMappingIdentifier>string</OutputMappingIdentifier>
         <OutputMappingType>NONE or GLOBAL or LOCAL or
CUSTOM</OutputMappingType>
         <OutputMappingStateful>boolean</OutputMappingStateful>
         <OutputErrorXpathLoc>string</OutputErrorXpathLoc>
         <OutputSchema>string</OutputSchema>
      </MappedRateRequest>
      <MappedRateOperators
xmlns="http://insbridge.net/wsi/Connector/SoftRater">
         <AddRoot>int</AddRoot>
         <AddInputs>int</AddInputs>
         <AddHeading>int</AddHeading>
         <AddResultDesc>int</AddResultDesc>
         <AddResultEmpty>int</AddResultEmpty>
         <DebugRate>int</DebugRate>
         <Encode>int</Encode>
         <EnvRef>string</EnvRef>
      </MappedRateOperators>
    </soap:Header>
    <soap:Body>
      <ProcessMessage xmlns="http://insbridge.net/wsi/Connector/SoftRater">
         <ibDoc>string</ibDoc>
</ProcessMessage>
</soap:Envelope>

http/1.1 200 OK
Content-Type: text/xml; charset=utf-8
Content-Length: length

<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
    <soap:Body>
      <ProcessMessageResponse
xmlns="http://insbridge.net/wsi/Connector/SoftRater">
         <ProcessMessageResult>xml</ProcessMessageResult>
      </ProcessMessageResponse>
    </soap:Body>
</soap:Envelope>
```

Figure 2 Sample SOAP Request

2

Introduction to SoftRater Caching

The SoftRater engine enables SoftRater to store mapped variable information in memory for quick access. This reduces the amount of information that must be pulled from the database and dramatically improves rating time.

The cache is broken down by line of business, program, version and environment. This means that information for the following could all exist in the cache at the same time, independent of one another (i.e. removing or updating one, does not remove or update any of the others):

LOB	Program	Version	Environment
1	1	1	Dev
1	1	1	Prod
1	1	2	Dev
1	2	1	Dev
2	1	1	Dev

For more information, see the following topics:

- What is a Cache Hit?
- What is a Cache Miss?
- When is Information Removed from the Cache?
- Cache Use Exceptions

For information on configuring the cache, see the Insbridge Framework Administrator topic Introduction to SoftRater Engine Configuration and the SoftRater Server topic Program Cache.

What is a Cache Hit?

Any time a value is found in a mapped variable table, for a specific set of criteria, it is considered a cache hit. All hits are stored in the cache. For example, consider the following mapped variable table:

Variable	Criteria			
Territory Code	**ZIP Code**	**City**	**County**	**State**
1	75080	Richardson	Dallas	Texas
2	75081	Richardson	Dallas	Texas
3	75082	Richardson	Dallas	Texas

4	75083	Richardson	Dallas	Texas
5	75085	Richardson	Dallas	Texas

Then the following data request would be considered a hit and a value of 3 would be stored for the mapped variable:

ZIP Code: 75082
City: Richardson
County: Dallas
State: Texas

If this same request had not been made previously, then a call would be made to the database to retrieve the information. Once obtained, the information would be stored in the cache as a hit. A subsequent request with this same information would result in the information being found in the cache, and a call to the database would not be necessary.

What is a Cache Miss?

Anytime a value is not found in a mapped variable table, for a specific set of criteria, it is considered a cache miss. All misses are stored in the cache, however, the Category Miss Buffer Purge % can be set to purge a certain percentage of the misses. Consider the following mapped variable table:

Variable	Criteria			
Territory Code	**ZIP Code**	**City**	**County**	**State**
1	75080	Richardson	Dallas	Texas
2	75081	Richardson	Dallas	Texas
3	75082	Richardson	Dallas	Texas
4	75083	Richardson	Dallas	Texas
5	75085	Richardson	Dallas	Texas

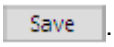
Then the following data request would be considered a miss and the default value for the mapped variable would be used:

ZIP Code: 75084
City: Richardson
County: Dallas
State: Texas

If this same request had not been made previously, then a call would be made to the database to retrieve the information. When a value is not found in the database for the request, the default value would be used and the information would be stored in the cache as a miss. A subsequent request with this same information would result in the information being found in the cache, and a call to the database would not be necessary (unless the miss had been purged from the database).

When is Information Removed from the Cache?

Information is removed from the cache only in the following cases:

- Caching is disabled on the SoftRater Engine Configuration screen in the Insbridge Framework Administrator, and the change is saved by clicking 

. In this case, all information is removed from the cache for all programs.
- A new package is loaded to an environment for a program that is currently cached. In this case, all information is removed only for that specific program and that specific environment.
- An update is made to a subscriber's SoftRater Explorer configuration settings (i.e. an environment is added, deleted or edited; a virtual file server is added; etc.). In this case, all information is removed from the cache for all programs.
- The server is restarted or shutdown.

NOTE	Cache will equal true even when the cached program is manually removed from IBFA. As long as cache is on, the Insbridge Engine will use the cache that the current rate request enters itself or from other requests.

Cache Use Exceptions

There is an occasion when SoftRater will not use the cache when rating.

- **The environment being rated against has a Catalog Type of RateManager.** The RateManager environment is the location that all local packages are loaded to upon creation. Typically, the RateManager environment is only rated against during program development or to debug a rating issue. This is usually done through ScenarioManager; however, it can be done through the SoftRater Test Interface as well. Since the development environment is very dynamic, caching would actually slow down rating in most cases.

3

Support

If you need assistance with an Oracle Insurance Insbridge Rating and Underwriting System product, please log a Service Request using My Oracle Support at http://metalink.oracle.com.

Address any additional inquiries to:

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200
oracle.com

Index

<

<program> node
Available Switches 7
<rate> node
Available Switches 6

A

Ampersand &
Invalid Characters 6
Attribute
env_def 6
renc 6
result_def 7

C

Cache
Breakdown of 9
Defining a Hit 9
Defining a Miss 10
Disabled 11
Exceptions 11
Cache Hit
Example 10
Cache Miss
Example 10

D

Defining
Cache Hit 9
Cache Miss 10
Definition
SoftRater 5
Disabled
Cache 11
Double Quote
Invalid Characters 6

E

Edition Notice 2
Enabled
Result Group 7
env_def 6
Example
Cache Hit 10
Cache Miss 10
env_def Override Default 6
renc Override Default 6
result_def Override Default 7
SOAP Request and Response 7
Exceptions
Cache 11

G

Greater Than
Invalid Characters 6

I

Insbridge Framework Administrator
Configuring Cache 9
Disabling Cache 11
Setting Up Defaults 6
Invalid Characters
Overriding Default 6

L

Less Than
Invalid Characters 6

M

Mapped Variable
Storing Information 9
Mapped Variables
Cache 9, 10
Mapping Group
Overriding 7

O

Overriding
Default Character Encoding 6
Default Mapping Group 7
Default Rating Environment 6
Overview
SoftRater 6

P

Ping
Web Services Interface....7
Placeholders
SOAP Request....7
ProcessAsyncMessage
Web Services Interface....7
ProcessCustomMessage
Web Services Interface....7
ProcessMessage
Web Services Interface....7
Purging Misses
Cache....10

R

RateManager Environment
Cache Exceptions....11
Rating Engine
SoftRater....6
Rating Environment
Overriding....6
ReceiveAsyncMessage
Web Services Interface....7
renc....6
Result Group
Enabled....7
result_def....7

S

Server
Restarted or Shutdown SoftRater 11
Single Quote
Invalid Characters 6
SOAP Request and Response
Example 7
SoftRater
Definition 5
Overview 6
Switches 6
SoftRater Explorer Configuration Settings
Updated 11
Switches
<program> node 7
<rate> node 6
SoftRater 6

V

Variables
Storing Mapped Variable Information 9

W

Web Service Interface 7

X

XML
Invalid Characters 6
Overriding Default Values 6