

# Oracle Insurance IBRU SoftRater User Guide

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# *Oracle Insurance Insbridge Rating and Underwriting SoftRater User Guide*

*Version 3.11*

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# Preface

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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

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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

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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

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New editions incorporate any updates issued since the previous edition.

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

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## 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

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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 &amp;. To override this default behavior, add the attribute `renc="1"` to the rate node.

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

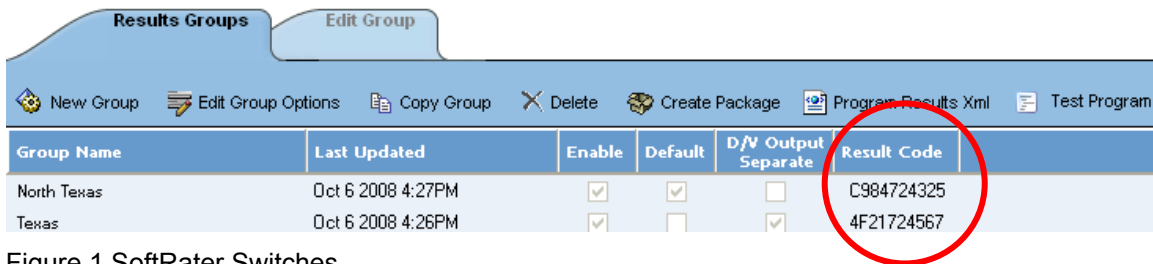
**env\_def** - Allows the user to override the default rating environment. By default, SoftRater rates against the default environment, as set up in the Insbridge Framework Administrator (see Introduction to Environments in the Insbridge Framework Administrator section). To rate against a different environment, 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="C984724325"/>
```



Group Name	Last Updated	Enable	Default	D/V Output Separate	Result Code
North Texas	Oct 6 2008 4:27PM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	C984724325
Texas	Oct 6 2008 4:26PM	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4F21724567

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

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

- **Ping** – This will obtain the status of the Insbridge XEngine.
- **ProcessAsyncMessage** – Submit Rate Request to our Insbridge XEngine Rate Broker.
- **ProcessCustomMessage** – Obtain Rates from our Insbridge XEngine using custom xml. You may also use this method for an Insbridge.XML request.
- **ProcessMessage** – Obtain Rates from our Insbridge XEngine.
- **ReceiveAsyncMessage** – Obtain Rate Results from our Insbridge XEngine 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: <yourservice>
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>
    <MappedRateRequest xmlns="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



---

## 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:

<b>Variable</b>	<b>Criteria</b>			
<b>Territory Code</b>	<b>ZIP Code</b>	<b>City</b>	<b>County</b>	<b>State</b>
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:

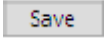
**ZIP Code:** 75084  
**City:** Richardson  
**County:** Dallas  
**State:** Texas

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.

## 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.

If during the installation or configuration of the Insbridge Rating and Underwriting Solution you receive an error or need a question answered, please contact Support at [support-skywire\\_ww@oracle.com](mailto:support-skywire_ww@oracle.com).

**Address any additional inquiries to:**

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500 Oracle Parkway  
Redwood Shores, CA 94065  
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Worldwide Inquiries:  
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Fax: +1.650.506.7200  
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