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Oracle Insurance IBRU SoftData for Java User Manual

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Oracle Insurance Insbridge Rating and Underwriting SoftData for Java User Manual

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Preface

Welcome to the *Oracle Insurance Insbridge Rating and Underwriting SoftData for Java Guide*. This guide describes the usage and supported features of Oracle Insurance Insbridge Rating and Underwriting SoftData for Java (SoftData). SoftData is a feature of Oracle Insurance Insbridge Rating and Underwriting SoftRater Server (IBSS) that is used to test the SoftData engine. Soft Data is available from the IBSS **Menu Tree**.

This guide serves as a complementary document to the SoftRater for WebLogic Reference Guide, the SoftRater for WebSphere Reference Guide, and the SoftRater for Jboss Reference Guide. It provides a reference for developers to properly interact with the SoftData Engine either through SOAP, POST Web Services Interface (WSI) or Direct EJB Interfacing.

Audience

This guide is intended for system administrators who are tasked with administering SoftRater Server. A fundamental knowledge of SoftRater is required. Readers of this document should be familiar with XML, HTTP and the corresponding platforms; either WebLogic, WebSphere or Jboss.

System Requirements

For minimum operating system and hardware requirements, please see the Hardware Software requirements guide.

Manual History

New editions incorporate any updates issued since the previous edition.

Edition	Publication Number	Product Version	Publication Date	Comment
1st Edition	P01-773-01	V 3.8.8	February 2008	
2nd Edition	P01-773-02	V 3.11	February 2009	
3rd Edition	P01-773-03	V 3.12	July 2009	

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Introduction to SoftData

SoftData is a method designed to provide the maximum amount of integration flexibility while maintaining a high level of operational efficiency for rules and rating applications. It allows an application to dynamically retrieve values from SoftRater Packages (SRPs) so that values do not have to be hard coded into an application.

For example, if you had a web-based application that allowed a consumer or agent to request a quote, SoftData calls could be used to fill in drop down text boxes with valid values. This allows the same application to be used across multiple states and carriers. It also prevents duplicate data entry, reducing the chance of making a costly mistake.

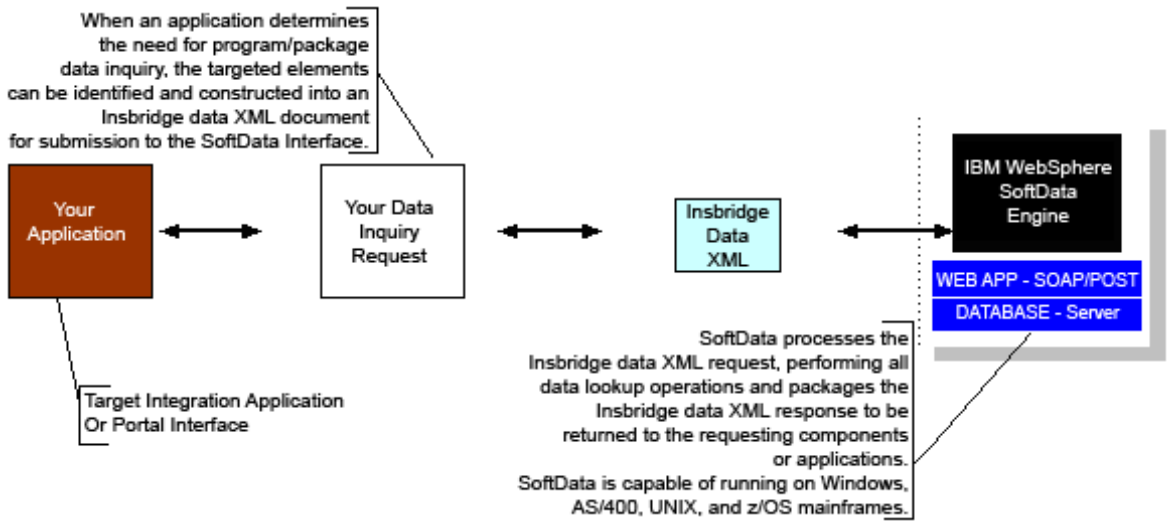
The core foundation is based on enumerated mappings to program based data elements built through the RateManager application. The schema model uses single character mapping node items, i.e. <m>, <q>, <i>, etc., which provide efficient document processing while gaining the system benefits of an extremely low XML document weight for small storage and faster transmission.

There are two parts to a SoftData call, the data request and the data result. For more information on these, see the following:

- InsbridgeDataRequest.XML
- InsbridgeDataResult.XML

Concept Diagram

The diagram below shows the high level interaction between the client application and the SoftData system. The SoftRater instance is responsible for all rating & underwriting processing but SoftData interface provides all the services for program data inquiry. The basic functionality of the SoftData system is demonstrated below. Input data is sent to the SoftData instance, processed and output data is returned.



Software Integration

SoftData is an EJB component hosted in the Application Server and accessible through the following software integration methods.

1. HTTP SOAP Proxy – SoftRater Web Service – WSDL documents are included in the installation of the EJB component. From them, proxy classes can be generated to communicate with the installed SoftRater instance. The SoftData Web Service WSDL can be found on the Get WSDL Files link from the SoftData menu.

NOTE	In IBSS, WebSphere will return different menu options than WebLogic or JBoss for the Get WSDL Files link.

   Also included is a sample SoftData SOAP proxy class instance along with the java file. They can be located in the installation directory under integration.

   Whether sample SoftDataProxy class is used or a new one is generated from the WSDL interface, the integrating application must call the (setEndPoint) method to set the target hosting URL for the SoftRater instance. The target hosting URL may vary according to platform. Please refer to the SoftData Administrator page for the target hosting URL.

2. HTTP POST – A lite weight Web Service Interface JSP page is provided as an interface for clients with just web form POST abilities. The URL to the POST interface may vary

according to platform. Please refer to the SoftData Administrator page for the URL to the POST interface.

3. EJB – Direct JNDI interfacing.

   The EJB interfaces for creating service clients which are used to create SoftRater instances.

   Typical JNDI Path – This value will be difference for each platform:
   `ejb/com/insbridge/softdata/SoftDataHome - WebSphere`
   `ejb.SoftDataEJBRemoteHome - WebLogic`
   `IBSS/SoftDataEJB/local - JBoss`

   Target JAR – `SoftRaterEJB.jar` is a part of the SoftRater.EAR file* that you downloaded. It contains the following standard EJB 2.0 interface files.

   - SoftData – Remote interface for Enterprise Bean
   - SoftDataBean – Bean implementation class for Enterprise Bean
   - SoftDataHome – Home interface for Enterprise Bean

   *The SoftRater.EAR file depends upon your selected platform:

   `SR_WS_3.xx_xxx.EAR – WebSphere`
   `SR_WL_3.xx_xxx.EAR – WebLogic`
   `JBIBSS.EAR – Jboss`.

   Where xx_xxx is the version number.

   Interface Example:

```
package com.insbridge.softdata;

import java.rmi.RemoteException;

/**
 * Remote interface for Enterprise Bean: SoftRater
 */
public interface SoftData extends javax.ejb.EJBObject
{
        public String GetMapData (      final String  XMLInput,
                                        final String  TargetEnvironment
                                        )

        throws RemoteException;


        public void ResetConfigInfo() throws RemoteException;

        public String getDefaultPath() throws RemoteException;

        public String getVersion() throws RemoteException;

        public String QueryAvailableEnvironments() throws RemoteException;

}
```

Arguments

The SoftRater engine rating arguments control the handling of XML data out of the system. For optimal performance use the following options if possible for your rating integration.

- String XMLInput – InsbridgeData.XML (Request) document containing the target data program data and lookup variables to be inquired against.
- String TargetEnvironment – (Optional) – Name of the SoftRater datasource environment to which the request should be processed against. If not provided the default will be obtained from the required target program data in the InsbridgeData.XML (Request).

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InsbridgeData.XML (Request) Format

InsbridgeData.XML Overview

InsbridgeData.XML is designed to provide the maximum amount of integration flexibility while maintain a high level of operational efficiency for rules & rating applications. The core foundation is based on enumerated mappings to program based data elements built through the RateManager application. The schema model uses single character mapping nodes items i.e. “<m>,<q>,<i>, etc” which provides efficient document processing while gaining the system benefits of an extremely low XML document weight for small storage and faster transmission.

The following is an example of an InsbridgeData request XML document:

Example:

```
<ibdoc>
        <datarequest lob=”1” env_def=””>
                <program parent_id="600" datastore_id=”600” id="35" ver="2"
                                        datemask=’mm/dd/yyyy’>
                        <m i="35" r="2" n="Get BI Limits"/>
                        <m i="135" r="1" p="25" c="25" n="Get BI factors">
                                <q i=”1” v="75025" o="=" t=’1’/>
                                <q i=”6” v="Plano" o="=" t=’1’/>
                        </m>
                </program>
        </datarequest>
</ibdoc>
```

Definitions

ELEMENT	DATA TYPE	DESCRIPTION	REQUIRED
<IBDOC>		Insbridge document namespace node	Y
<datarequest>		Data request node	Y
lob	Long	Line of Business identification number	Y
env_def	String	Insbridge SoftRater Explorer Environment Identifier	N
<program>		Program target node	Y
parent_id	Long	Insbridge public identification number for the target program	Y
datastore_id	Long	SoftRater Explorer managed subscriber's identification number	N
id	Long	Program identification number	Y
ver	Long	Program identification version number	Y
datemask	String	Date mask to use for any date queries	Y
<M>		Mapped lookup variable node	N
i	Long	Lookup variable identification number	Y
r	Long	Lookup variable revision number	Y
p	Long	Lookup variable data row position to start querying new data from	N
c	Long	Lookup variable total count of data rows to be returned	N
n	Any	Lookup variable description	N
w	Int	Wildcard indicator	N
fq	String	List of qualifier filter	N
<Q>		Lookup variable qualification node	N
i	Long	Qualifier query identification number	Y
t	Long	Qualifier query type number: 0 – Integer, 1 – String, 2 – Decimal, or 3 – Date.	Y
v	Any	Qualifier query value	Y
o	String	Qualifier query operation selection	Y

Summary

- To request data from multiple program data sources you can include 1 – N number of program nodes in the <datarequest> node.
- To request data from multiple mapped variables you can include 1 – N mapping nodes in the <program> target node.
- The Insbridge Published Program Summary Report, part of the SoftRater Package Listing Details View from Insbridge Framework Administrator, provides a list all available mapped variables for a program including the qualifiers needed to query data for the variable successfully. It will also have information on the qualifier and result variable data types and information on whether the mapped variable returns multiple results (RateManager-Linked Mapped Variables) for every item row.
- To request a dynamic revision lookup, the value of the revision attribute for that particular mapping item must be empty. SoftData would then retrieve the mapping item with the maximum revision number.
- Qualifier Types are enumerated as follows:
  - 0 = Integer
  - 1 = String
  - 2 = Decimal
  - 3 = Date
- Valid Qualifier Operators are entered as follows.

=	Equals
<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than or equal to
<>	Not equal to

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InsbridgeData.XML (Response) Format

The following is an example of an InsbridgeData result XML document.

```
<ibdoc gen_date="2/9/2009 1:50:31 PM">
<dataresult>
        <program parent_id="600" id="35" ver="2">
                <m i="35" r="2" n="Get BI Limits" l="true">
                        <d p="1">
                                <v>100/200</v>
                                <v>Our Standard Limit</v>
                                <v>L100</v>
                        </d>

                        <d p="2">
                                <v>200/300</v>
                                <v>Optional Limit</v>
                                <v>L200</v>
                        </d>

                        <d p="3">
                                <v>300/400</v>
                                <v>Highest Limit</v>
                                <v>L300</v>
                        </d>
                </m>
                <m i="135" r="2" p="50" c="25" n="Get BI factors">
                        <d p="48">
                                <v>0.001</v>
                        </d>

                        <d p="49">
                                <v>0.235</v>
                        </d>

                        <d p="50">
                                <v>0.906</v>
                        </d>

                </m>
        </program>
</dataresult>
</ibdoc>
```

Definitions

ELEMENT	DATA TYPE	DESCRIPTION	OPTIONAL	ADDITIONAL INFORMATION
<ibdoc>		Insbridge document namespace node	N	
gen_date	Datetime	Document creation time stamp	N	
env_def	String	SoftRater Explorer Environment Identifier	N	
<dataresult>		Data result node	N	
<program>		Program selected node	N	
parent_id	Long	Insbridge public identification number for the selected program	N	
id	Long	Program identification number	N	
ver	Long	Program version number	N	
<m>		Mapped lookup variable node	Y	One node is returned for each corresponding node in the data request
i	Long	Lookup variable identification	N	
r	Short	Lookup variable identification revision number	N	
p	Long	Last data item row position retrieved	Y	
c	Long	Lookup variable total count of data nodes returned	Y	
n	Any	Lookup variable description request from the input	Y	
l	Boolean	Lookup variable flag indicating if the result contains linked results	N	
<d>		Data node	Y	One node is returned for each row returned
p	Long	Data row position indicator	N	
<v>	Any	Value node (Multiple will be returned for linked mapped variables)	N	One node is returned for each variable
<q>	Any	Lookup variable qualification node	N	One node is returned for each qualifier

Summary

- For each target program node there will be one selected program node supplied in the <dataresult> results node. Each <program> will contain all queried mapped variables and data for that program.
- Mapped lookup variables nodes with the linked variable flag “l=’true’” will contain 1 – N value nodes <v> for each data <d> row node returned. The values in the <v> nodes are assigned respective to the order determined during variable setup in (RateManager-Linked Mapped Variables) and listed in the Insbridge Published Program Summary Report.

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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:

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World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
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