

Oracle Insurance

**Insbridge Rating and
Underwriting
SoftRater for Windows
Reference Guide**

Release 3.13

December 2009

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Oracle Insurance Insbridge Rating and Underwriting SoftRater for Windows Reference Guide

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PREFACE

Welcome to the *Oracle Insurance Insbridge Rating and Underwriting SoftRater for Windows User Guide*. This guide describes the concepts and requirements of SoftRater for Windows. It provides a reference for developers to properly interact with the SoftRater Engine either through SOAP, POST Web Services Interface (WSI) or Direct COM Interfacing.

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

For minimum operating system and hardware requirements, please see the Insbridge Rating and Underwriting System Operating Environments for Hardware and Software.

RELATED DOCUMENTS

For more information, refer to the following Oracle resources:

- The Oracle Insurance Insbridge Rating and Underwriting SoftRater User Guide.
- You can view this guide on-line at this address:

<http://www.oracle.com/technology/documentation/insurance.html>

Manual History

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CONCEPT DIAGRAM

The diagram below shows the high level interaction between the client application and the Oracle Insurance Insbridge Rating and Underwriting SoftRater (SoftRater) system. The SoftRater instance is responsible for all rating & underwriting processing. The basic functionality of the SoftRater system is demonstrated below. Input data is sent to the SoftRater instance, processed and output data is returned.

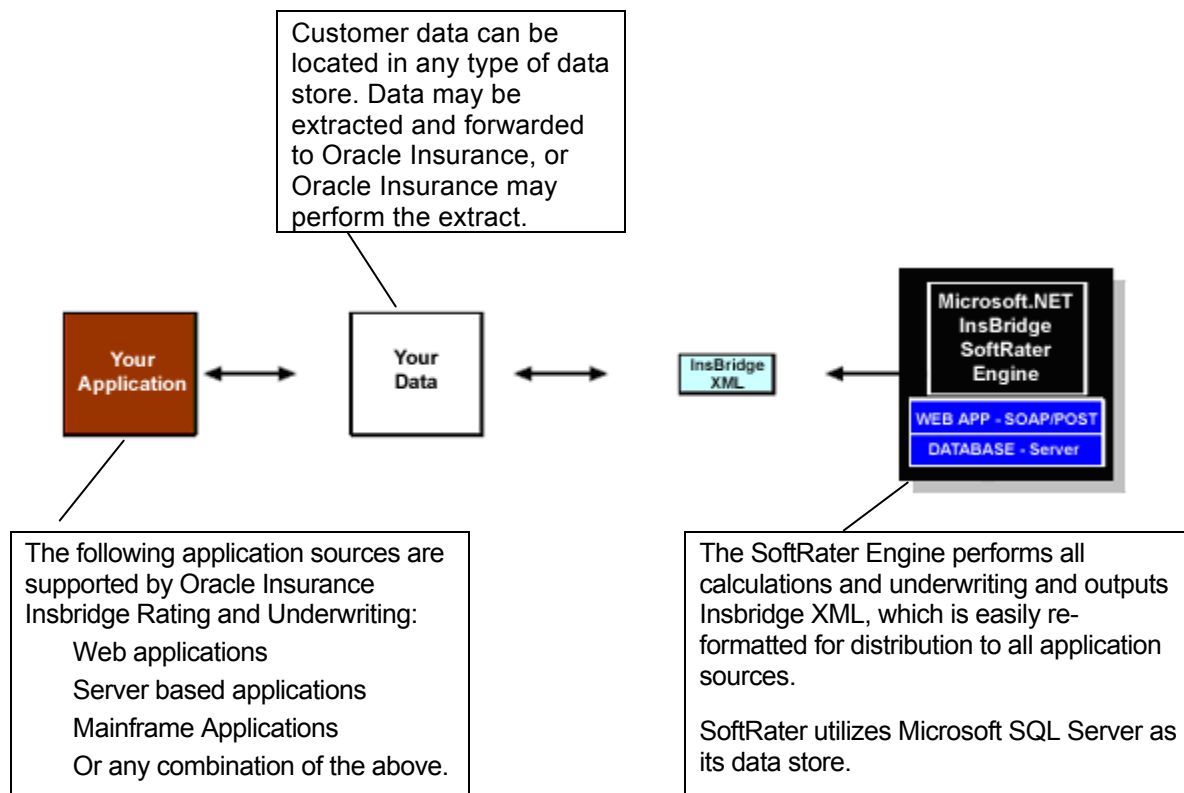


Figure 1 Concept Diagram

SOFTWARE INTEGRATION

The Web Service Interface (WSI) provides a platform, environment, and language neutral mechanism for business process interoperability using the two most common denominators of the Internet, XML & HTTP. The SoftRater WSI is supported through the use of Microsoft Internet Information Server (IIS) and ASP.NET.

Upon request, the URL configures an instance of the SoftRater Engine from those arguments and forwards the InsbridgeRate.XML (Input format) to the SoftRater Engine for processing. After the SoftRater Engine completes processing, the result, InsbridgeRate.XML (Output format), is forwarded through (HTTP) back to the requesting process.

1. HTTP SOAP Proxy – SoftRater Web Service – WSDL documents are included in the installation. From them proxy classes can be generated from a SOAP supported development environment to communicate with the installed SoftRater instance. The SoftRater Web Service WSDL should be located at the following URL.

<http://<yourserver>/ibfa/connectors/sofrater.asmx?WSDL>

The SoftRater Web Service interface documentation should be located at the following URL.

<http://<yourserver>/ibfa/Connectors/sofrater.asmx?op=ProcessMessage>

Supported operations are SOAP, HTTP POST, and HTTP GET. In order to utilize the SoftRater rating arguments, the document must be a SOAP envelope.

If you are submitting Insbridge XML, it is recommended that you use HTTP POST instead of SOAP. The SOAP should only be used when rating custom XML. If you must use SOAP, remove <MappedRateRequest> section from the SOAP header.

Currently, when rating custom XML, the Java engine only supports stateful rating. The SoftRater WSI will add the contents of the rating results to the document that was submitted for rating. This is an important consideration when constructing XSLT (mapping) files.

2. HTTP POST – A lite-weight Web Service Interface. An ASPX page is provided as an interface for clients with only web form POST abilities without using a SOAP envelope message. CustomXml cannot be submitted from this interface.

The URL to the POST interface should be the following.

<http://<yourserver>/ibfa/Connectors/sofrater.aspx>

The Boolean rating arguments can be provided (optionally) as URL query string arguments. For example: <http://<yourserver>/ibfa/Connectors/sofrater.aspx?addinputs=true&addroot=true>;

The lists of available URL arguments are the standard rating arguments provided through all SoftRater Interfaces. The doinXSL option will transform the contents of the input XML using the XSL processing-instruction element. The rating document name value pair “ibdoc” should be supplied as a form collection item.

```
addinputs=true
addroot=true
```

```
addheading=true
addresultdesc=true
addresultempty=true
doinXSL=true
```

```
<xsl:processing-instruction name='input' href='c:\location.xml'/>
```

Visual Basic Example (Web Services – Lite Weight)

```
Dim MyResults
Dim MyXMLDoc
Dim AppURL
Dim objHTTP

MyXMLDoc = "ibDoc=<ibdoc><rate>.....</rate></ibdoc>"           '// Well formed InsbridgeRate.XML (Input)
AppURL = "http://yourserver/ibfa/Connectors/sofrater.aspx?AddRoot='TRUE'" '// Web Services Request URL w/ Options

Set objHTTP = CreateObject("Msxml2.XMLHTTP")                     '// Microsoft HTTP Request Object

objHTTP.open "post", AppURL, false
objHTTP.setRequestHeader "Content-Type", "application/x-www-form-urlencoded"
objHTTP.send MyXMLDoc                                           '// INSBRIDGE.XML sent as the body.

MyResults=objHTTP.responseXML                                   '// returns XML response
MyResults=objHTTP.responseText                                 '// returns text response (Optional)
```

JavaScript (Web Services)

```
var MyResults;
var MyXMLDoc;
var AppURL;
var objHTTP;

MyXMLDoc = "ibDoc=<ibdoc><rate>..... </rate></ibdoc>";           // Well formed InsbridgeRate.XML (Input)
                                                                    // or CustomXml
AppURL = "http://yourserver/ibfa/Connectors/sofrater.aspx/ProcessMessage" // Web Services Request URL

objHTTP = new ActiveXObject("Msxml2.XMLHTTP ");                 // Microsoft HTTP Request Object

objHTTP.open('post', AppURL, false);

objHTTP.setRequestHeader("SOAPAction", "http://insbridge.net/wsi/Connector/SoftRater/ProcessMessage"); //Set the SOAP action
objHTTP.setRequestHeader("Content-Type", "application/x-www-form-urlencoded");

objHTTP.send(MyXMLDoc);
MyResults=objHTTP.responseXML;                                   // returns XML response
MyResults=objHTTP.responseText;                                 // returns text response (Optional)
```


C# Example (Web Services) – Process Message

```
string rateXml = File.ReadAllText("C:\\Insbridge.xml");

//Rate an Instance
pmSoftRater.SoftRater ibSoftRater = new pmSoftRater.SoftRater();

//Rate Operators
pmSoftRater.MappedRateOperators rateOper = new
pmSoftRater.MappedRateOperators();

rateOper.AddHeading = 1;
rateOper.AddRoot = 1;
rateOper.AddInputs = 1;
rateOper.AddResultDesc = 0;
rateOper.AddResultEmpty = 0;
rateOper.DebugRate = 0;
rateOper.EnvRef = "rm_default";

ibSoftRater.MappedRateOperatorsValue = rateOper;

// Rate using the ProcessMessage Service
string results = ibSoftRater.ProcessMessage(rateXml).OuterXml;
```

Created using Visual Studio .NET 2008.

C# Example (Web Services) – Custom Message

```
string rateXml = File.ReadAllText("C:\\Custom.xml");

//Rate an Instance
pcmSoftRater.SoftRater ibSoftRater = new pcmSoftRater.SoftRater();

//Rate Operators
pcmSoftRater.MappedRateOperators rateOper = new
pcmSoftRater.MappedRateOperators();

//Only for Input and/or Output Transformations
pcmSoftRater.MappedRateRequest rateRequest = new
SRTester.pcmSoftRater.MappedRateRequest();

rateOper.AddHeading = 1;
rateOper.AddRoot = 1;
rateOper.AddInputs = 1;
rateOper.AddResultDesc = 0;
rateOper.AddResultEmpty = 0;
rateOper.DebugRate = 0;
rateOper.EnvRef = "SR";

rateRequest.Subscriber = 1002;
rateRequest.Lob = 1;
```

```
rateRequest.Program = 106;
rateRequest.Version = 3;
rateRequest.OutputMappingStateful = false;

// Setting the input/output Transformation templates
rateRequest.InputMappingIdentifier = "customInputXslt.xslt";
rateRequest.OutputMappingIdentifier = "customOutputXslt.xslt";
rateRequest.InputMappingType = pcmSoftRater.MappingType.CUSTOM;
rateRequest.OutputMappingType = pcmSoftRater.MappingType.CUSTOM;

string results = ibSoftRater.ProcessCustomMessage(rateXml, rateOper,
rateRequest);
```

Created using Visual Studio .NET 2008.

RATING ARGUMENTS

The SoftRater engine rating arguments control the handling of XML data out of the system. Rating arguments are optional. For optimal performance, use the following arguments for your rating integration.

Add Root Node (Use default – False) – If submitting multiple rate request documents, this option is typically set to true to make the result document a valid XML document.

Add Inputs (Use default – False) – When set to true, the full request Insbridge.XML document is returned in the result Insbridge.XML document making the XML document much larger than normal.

Add Heading (Use default – False) – When set to true, the program name description information is returned in the result XML also.

Add Result Descriptions (Use default – False) – When set to true each result item includes the RateManager variable result name along with the result id and value. Making the result XML much larger.

Typically, most integration operates on the result IDs and descriptions are not needed when building an automated system.

Add Empty Results (Use default – False) – When set to true, a defined result item, whose value is empty (i.e. blank), is still created and returned blank in the resulting Insbridge.XML. If your program design requires a number of optional results, you could have blank results items in your XML.

Debug Output (Use default – False) – When set to false, no debug report will be issued. Set to true if you would like a debug report.

EnvRef (Use default – blank) – When left blank, the default environment defined in setup will be used. To specifically define an environment, enter in the environment name.

If no arguments are sent, the default values will be used. Default values are defined in setup. If using the SoftRater Server, see Submit Insbridge XML.

CUSTOM XML ARGUMENTS

The SoftRater WSI controls the processing (transformations) of XML data in and/or out of the system. Custom XML arguments are required only when you are submitting custom XML. If you are using Insbridge XML, custom XML arguments are not required. The information will be contained in the Insbridge XML.

Use the following MapRequest SOAP options below for your rating integration.

Lob – Identifier of the Line Of Business

Subscriber – Identifier of the Subscriber

Program – Identifier of the Program

Version – Identifier of the Program Version

InputMappingIdentifier – Name of the Custom Mapping Document

InputMappingType – Enum for the Custom Mapping Document

- NONE – No input mapping should be performed
- GLOBAL – Input mapping is global to the Line of Business
- LOCAL – Input mapping is unique to the program version
- CUSTOM – Input mapping of the customer that has been added into the workflow

OutputMappingIdentifier – Name of the Custom Mapping Document

OutputMappingType – Enum for the Custom Mapping Document

- NONE – No output mapping should be performed
- GLOBAL – Output mapping is global to the Line of Business
- LOCAL – Output mapping is unique to the program version
- CUSTOM – Output mapping of the customer that has been added into the workflow

OutputMappingStateful – The SoftRater WSI will add the contents of the rating results to the document that was submitted for rating.

OutputErrorXPathLoc – Location of any system errors that occurred during the WebService request that are not related to SoftRater for Windows. (By default, an error node is created at the root level.)

OutputSchema – Path of any schema that the WSI should validate against.

If you are using custom XML and do not define the custom XML arguments, any error message will be thrown.

INSBRIDGE.XML

XML is the primary data exchange mechanism used by Oracle Insurance Insbridge Rating and Underwriting system to import/export data and to communicate information electronically with external and internal software systems. XML provides a clean, readable, self-validating way to exchange data and is quickly becoming (or possibly already is) the data exchange standard.

Insbridge's rating request input XML is designed to be flexible and efficient. It allows for single or multiple rate requests to be submitted via one input XML document. The rate requests embedded in this single document can be targeted to multiple states and/or multiple lines of business. Multiple versions of a rating package also can be targeted in a single rate request document.

The rating request response XML is also streamlined to present all the results to the various request methods, described above, in a single output XML document.

Insbridge.XML Request Format

The following is an example of an Insbridge rate request XML document:

```
<rate lob="2" tracking_attribute="" env_def="">
  <heading>
    <program parent_id="700" tiering_id="" program_id="24" program_ver="1"/>
  </heading>
  <c i="0" desc="Policy">
    <m i="1086" n="PackageDisclnd" v=""/>
    <m i="1094" n="RenewalRetentionCreditInd" v=""/>
    <m i="1157" n="CompanyCode" v=""/>
    <m i="1212" n="Eff_Date" v=""/>
    <m i="1214" n="PrimInsuredAge" v=""/>
    <m i="1215" n="SecInsuredAge" v=""/>
    <m i="1222" n="RenewalInd" v=""/>
  <c i="5" desc="Home">
    <m i="1083" n="TerritoryCode" v=""/>
    <m i="1084" n="ResidenceType" v=""/>
    <m i="1087" n="ProtectionClass" v=""/>
    <m i="1095" n="Wood/Tile/SlateRoofType" v=""/>
    <m i="1096" n="HomeDeductible" v=""/>
    <m i="1098" n="WindstormOrHailDeductible" v=""/>
    <m i="1100" n="CentralStationFireAlarmInd" v=""/>
    <m i="1101" n="CentralStationBurglarAlarmInd" v=""/>
  <c i="8" desc="Coverage">
    <m i="1204" n="CovCd" v=""/>
    <m i="1205" n="CovLimit" v=""/>
    <m i="1207" n="CovEff_Date" v=""/>
  </c>
  <c i="9" desc="Endorsement">
    <m i="1181" n="EndorCd" v=""/>
    <m i="1182" n="EndorRateInd" v=""/>
  </c>
</rate>
```

```
                <m i="1190" n="EndorEff_Date" v="" />
                <m i="1191" n="Parm5" v="" />
            </c>
        </c>
    </c>
</rate>
```

<rate> Node

The <rate> node marks the beginning of a rate request for a specific line of business. Accordingly, this node has the required attribute, “lob”, which identifies the “line of business” for the request. In the following example, the lob attribute is set to “2” which represents “Home” insurance according to the Insbridge standard line of business mappings (see Oracle Insurance Insbridge Rating and Underwriting RateManager User Guide). The rate node attributes are defined as follows:

lob - line of business indicator per Insbridge standard lob codes (Required)

env_def - rating environment indicator per Insbridge Framework Administrator (Optional)

As an optional feature, all other attributes provided on the <rate> node are collected as tracking attributes to be returned in the result XML document as attributes in the <result> node. This allows the original rate request to be uniquely tracked with its result XML document by any identification elements available to the calling subsystem. In the example below, the “ policyId=’A1206’ ” attribute value pair would be mirrored on the <result> node of the resulting output XML.

Example:

```
<rate lob="2" policyId="A1206">
```

This rate request may be targeted to one or more rating logic instances based on what is found in the <heading> node (described) next.

<heading> Node

The <heading> node serves only as a container for <program> nodes and has no attributes. If multiple <program> nodes are found in the heading node, then rating is performed for each node, if possible, and appropriate results are generated in the output XML.

Example:

```
<heading>
    <program parent_id="700" tiering_id="" program_id="24"
              program_ver="1"/>
    <program parent_id="700" tiering_id="" program_id="22"
              program_ver="1"/>
</heading>
```

<program> Node

The <program> node specifies a specific SoftRater Package (rating engine logic instance) to run this rate request against. A program typically represents rating logic for a particular State and line of business (e.g.: Texas Auto insurance, California Home insurance). The program node attributes are defined as follows:

- parent_id - Insbridge identifier typically assigned to a carrier for database lookup purposes (Required)
- program_id - Insbridge identifier assigned to a program (rating engine logic instance) which represent the rating rules necessary to generate a quote. (Optional)
- program_ver - A particular version of a program. Each version may have different rating rules, inputs, outputs, etc. (Optional)
- tiering_id - Insbridge identifier specifying which tier to use within a program. (Optional/Required)

Attribute requirement rules:

1. If the [tiering_id](#) is provided then the [program_ver](#) value is required and is used to select a tiering program version to be processed against the source XML.
Example: <program parent_id="100" tiering_id="20" ver="1"/>
2. If the [program_id](#) is provided then the version [program_ver](#) value is used to select a program version to be processed against the source XML.
Example: <program parent_id="100" program_id="100" ver="3"/>
3. If the [program_id](#) is provided and the [program_ver](#) is not, the version selection rules for the program, identified by program_id, are used to select the program version to be processed against the source XML.
Example: <program parent_id="100" program_id="100" />

The <program> node allows mapped input overrides to be specified for a specific program in a multi-program (or multi-state) rate request. See Multiple Rate Requests below for more details.

<c> Node

The <c> (category) node marks the beginning of input data for a specific category of information (i.e.: home, car, driver, policy, etc). It has the following attributes:

- i - identifier. Zero always indicates "Policy" level inputs, other categories are user definable. (Required)
- desc - description of category (Optional)

Example: <c i="0" desc="Policy">

The "Policy" category is always a direct child of the <rate> node, except for overrides in the <program> node (described later). It is also the top-level category node. The Policy category node typically has an ID of zero (i.e.: i="0"). Item level categories are nested under the Policy category node.

For example:

```
<c i="0" desc="Policy">
  <m i="1212" n="Eff_Date" v="" />
  <m i="1214" n="PrimInsuredAge" v="" />
  <m i="1215" n="SecInsuredAge" v="" />
  <c i="5" desc="Home">
    ....
    <c i="7" desc="Scheduled Property">
      ....
    </c>
  </c>
  <c i="5" desc="Home">
    ....
  </c>
</c>
```

<m> Node

The <m> (map) node represents an individual attribute-value pair mapped for a specific SoftRater Package hosted by SoftRater. In the input case, it identifies an input attribute recognized by the SoftRater Package (or Packages) listed in the <heading> node, and its associated value. The <m> node's attributes are defined as follows:

- i - input identifier (Required)
- n - name, description of input (Optional)
- v - value of input (Required)

The <m> node is always a child of a <c> (category) node and is an attribute-value pair for that specific category instance (see the Policy category example above).

Insbridge.XML Result Format

The following is an example of an Insbridge rate request result XML document. As you can see the result XML very similar to the input XML format.

```
<result lob="2" st="6" gen_date="2/19/2009 1:55:32 PM">
  <program parent_id="900" program_id="1" program_ver="1" status="PASS">
    <c i="5">
      <m i="Dwelling_1" v="640"/>
      <m i="Dwelling_3" v="0"/>
      <m i="Dwelling_5" v="0"/>
      <m i="replcc" v="0"/>
      <m i="COV Replacement Cost Contents" v="0"/>
      <m i="COV Mortgage Payment" v="0"/>
      <m i="Dwelling_10" v="0"/>
      <m i="Dwelling_11" v="34"/>
      <m i="COV Replacement Cost - Dwelling" v="0"/>
      <m i="Dwelling_13" v="0"/>
      <m i="Dwelling_13" v="674"/>
    </c>
  </program>
</result>
```



```

    <m i="COV Business Pursuits" v="0"/>
    <m i="COV Permitted Incidental Occupancies" v="0"/>
    <m i="COV Personal Injury" v="0"/>
    <m i="Dwelling_17" v="0.02"/>
    <m i="Dwelling_18" v="0"/>
    <m i="Dwelling_19" v="0"/>
    <m i="CREDIT Multi Policy Discount" v="0"/>
    <m i="CREDIT Neighborhood Watch" v="0"/>
    <m i="CREDIT New Home" v="0.20"/>
    <m i="CREDIT New Loan" v="0.10"/>
    <m i="CREDIT Protective Devices" v="0.020000000"/>
    <m i="Dwelling_25" v="0"/>
    <m i="SEC_I C. Personal Property" v="213500"/>
    <m i="SEC_I D. Loss of Use" v="122000"/>
    <m i="SEC_I A. Dwelling" v="305000"/>
    <m i="SEC_II Personal Liability Each Occurrence" v="500000"/>
    <m i="SEC_II Medical Payments Each Person" v="2000"/>
    <m i="SEC_I B. Other Structures" v="30500"/>
    <m i="Total Annual Premium" v="674"/>
    <m i="DED Standard Deductible" v="1000"/>
    <m i="COV Replacement Cost Comp" v="1"/>
    <m i="Total Earthquake Annual Prem" v="0"/>
    <m i="EQ Loss of Use" v="25000"/>
    <m i="EQ Personal Property" v="152500"/>
    <m i="EQ Dwelling Limit" v="305000"/>
    <m i="DED Earthquake Deductible" v="30500"/>
  </c>
<c i="0">
  <m i="SELECTED_TEIR" v="SPECIAL"/>
  <m i="Total Policy Premium" v="674"/> </c>
</program>
</result>

```

The same nodes are present in the output XML as were found in the input XML; however their meanings are slightly different. The following sections describe how to interpret the output XML.

<result> Node

The <result> node marks the beginning of a rate request result. There is a one-to-one correspondence between <rate> nodes in the request XML to <result> nodes in the response XML. The result node attributes are defined as follows:

lob - line of business indicator corresponding to the <rate> request nodes lob attribute.
 gen_date - server creation timestamp indicating when this response was created.

As described previously, tracking attributes on the <rate> node are returned in the result XML document as attributes in the <result> node.

Example:

```
<rate lob="2" policyId="A1206" gen_date="2/9/2009 1:50:31 PM">
```

<program> Node

The result <program> node provides an XML envelope containing all of the formatted data, setup in the RateManager application as output results for the program. There can be (1-N) <program> node groups based on (1-N) program node groups requested in the input <rate> XML document. If the original <rate> request contained a tiering selection, each program version located during tiering execution will generate a <program> node in the result data. The result XML program node attributes are defined as follows:

parent_id	- Parent or Insbridge Company Identifier	(available by default)
program_id	- Selected Program Identifier	(available by default)
ver	- Selected Program Version Identifier	(available by default)
Status	- Status of program rate request	(available by default)
company_nm	- Parent Corporate name	(with AddHeading request option)
program_nm	- Program name	(with AddHeading request option)
version_nm	- Version name	(with AddHeading request option)

Example base:

```
<program parent_id='500' program_id='3' ver='2' status='PASS'>
```

Example with “AddHeading” option requested:

```
<program parent_id='200' program_id='32' ver='4' company_nm='NewCo Mutual'  
program_nm='Texas 6 Month' ver_nm='Performance' rating='A++' logo='newco.jpg'  
site='www.newco.com' status='PASS'>
```

<c> Node

The <c> (category) node marks the beginning of output data for a specific category of information (i.e.: home, car, driver, policy, etc). It has the following attributes:

- i - identifier. Zero always indicates “Policy” level inputs, other categories are user defined.
(available by default)
- d - description of category (with AddResultDesc request option)

Example:

```
<c i="0" d="Policy">
```

The “Policy” category is always a direct child of the <program> node. It is also typically the top-level category node. The Policy category node typically has an ID of zero (i.e.: i="0"). Item level (user defined) categories are nested under the Policy category node.

For example

```
<c i="0">  
  <m i="SELECTED_TEIR" v="SPECIAL"/>  
  <m i="Total Policy Premium" v="674"/>  
</c>
```

```
    <m i="Dwelling_1" v="640"/>
    <m i="Dwelling_3" v="0"/>
    <m i="Dwelling_5" v="0"/>
    <m i="SEC_II Personal Liability Each Occurrence" v="500000"/>
    <m i="SEC_II Medical Payments Each Person" v="2000"/>
  </c>
</c>
```

<m> Node

The <m> (map) node represents an individual attribute-value pair mapped for a specific SoftRater Package hosted by SoftRater. In the output case, it identifies an output attribute as defined in the SoftRater Package (represented by the <program> node) and its associated value. The <m> node's attributes are defined as follows:

- i - output identifier (available by default)
- n - (name) description of output (with AddResultDesc request option)
- v - value of output (available by default)

The <m> node is always a child of a <c> (category) node and is an attribute-value pair for that specific category instance (see the category example above).

<input> Node

The <input> node is optional. When the rate request is issued with the "AddInputs" option, this node is returned in the result XML doc. It includes the full input rate request document that was used to generate the rate result document.

Example:

```
<result lob="1" policyId="ABC1234-AUTO" gen_date="7/9/2009 1:50:31 PM">
  <inputs>
    <rate policyId="ABC1234-AUTO">
      ....
    </rate>
  </inputs>
  ...
</result>
```

Input Overrides

By specifying input values in the <program> node within the <header> section of the input XML, those values will be used for that program when it is processed by SoftRater, regardless of whether those values are present in the body of the XML request. This allows each program found in the <header> to use the common set of inputs provided in the rate request body, and either provide additional inputs that are relevant only to that program, or provide overriding inputs values to ones found in the body, for use during rating.

Example:

```
<rate lob="1">
  <heading>
    <program parent_id="2" program_id="1" program_ver="3.00">
      <c i="0" d="Policy">
        <m i="11" n="Policy Program Specific Something " v="1029"/>
        <m i="12" n="Custom Question 1" v="XYZ"/>

        <c i="3" d="driver">
          <m i="2" n="gender" v="Female"/>
          <m i="3" n="Custom Driver Question 1" v="ABC"/>
        </c>
      </c>
    </program>
    <program parent_id="2" program_id="7" program_ver="3.00">
  </heading>
  <c i="0" d="Policy">
    <m i="11" n="Policy Program Specific Something " v="5000"/>
    <c i="3" d="driver">
      <m i="3" n="Custom Driver Question 1" v="DEF"/>
    </c>
  </c>
  .....
</rate>
```

Examples

Single Rate Request

See Insbridge.XML Request Format and Insbridge.XML Result Format above.

Multiple Rate Requests in a Single XML Document (Batch Rating)

It is possible to request several rates from a single XML document. These can be rates on different lines of business, across different states, and/or different SoftRater Package versions.

This simple way to do this is to combine multiple <rate> request nodes in one single root node, and submit it for rating. The root node can be anything, however in the WSI call it is always <ibdoc>.

Multiple <rate> nodes

This request XML:

```
<ibdoc>
  <rate> ... </rate>
  <rate> ... </rate>
</ibdoc>
```

...will produce this result XML:

```
<ibdoc>
  <result> ... </result>
  <result> ... </result>
</ibdoc>
```

The root node is not returned in the result XML automatically. It must be specified in the call using the “AddRoot” attribute.

Multiple <program> nodes

This request XML:

```
<ibdoc>
  <rate>
    <heading>
      <program> ... </program>
      <program> ... </program>
    </heading>
    <c>...</c>
  </rate>
</ibdoc>
```

...will produce this result XML:

```
<ibdoc>
  <result>
    <program>
      <c>...</c>
    </program>
    <program>
      <c>...</c>
    </program>
  </result>
</ibdoc>
```

Multi - State Request

To rate against multiple states using one request XML document, it is recommended to follow the “Multiple <program> nodes” request model. In the following example, we are targeting two Auto programs for rating. A program typically represents a State for a specific line of business. In this example we will assume CA=“21” and TX=“41”. As discussed earlier in Input Overrides, each program entry can specify input values to be used for that particular program.

This rate request XML:

```
<ibdoc>
  <rate lob="1">
    <heading>
      <program parent_id="2" program_id="21"> ... </program>
      <program parent_id="2" program_id="41"> ... </program>
    </heading>
    <c>...</c>
```

```
</rate>
</ibdoc>
```

... will produce this result XML:

```
<ibdoc>
  <result lob="1" gen_date="2/9/2009 1:50:31 PM">
    <program parent_id="2" program_id="21"> ← Results for CA
      <c>...</c>
    </program>
    <program parent_id="2" program_id="41"> ← Results for TX
      <c>...</c>
    </program>
  </result>
</ibdoc>
```

Multi - Line of Business Request

To rate against multiple lines of business using one request XML document, it is recommended to follow the "Multiple <rate> nodes" request model. In the following example, we are targeting two lines of business for rating, Auto and Home. The "lob" attribute in the <rate> node signifies which line of business will be rated against.

This rate request XML:

```
<ibdoc>
  <rate lob="1" > ... </rate>
  <rate lob="2" > ... </rate>
</ibdoc>
```

...will produce this result XML:

```
<ibdoc>
  <result lob="1" gen_date="2/9/2009 1:50:31 PM"> ... </result>
  <result lob="2" gen_date="2/9/2009 1:50:45 PM"> ... </result>
</ibdoc>
```

```
graph LR
    R1["<result lob='1' gen_date='2/9/2009 1:50:31 PM'> ... </result>"] --> A["Results for Auto"]
    R2["<result lob='2' gen_date='2/9/2009 1:50:45 PM'> ... </result>"] --> H["Results for Home"]
```

CONTACTING 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 <https://support.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

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