

Creating Rate Tables in VTXML

Updated March 15, 2011

The procedures below document the steps to create a Rate Table in VTXML. In order to do this, the user will have to create 2 separate items:

1. [Creating the Table Definition](#) – Step by step explanation to create the rate table name, KeyDef and AxisDef information. These items are used in the PPfA XTbML Content Classification and MetaData.
2. [Creating the Table Values](#) – Step by step explanation to create the rates associated with the KeyDef and AxisDef. These items are used in the PPfA XTbML ‘Values’.

Best Practices:

- **Check to see if there is an existing rate table which can be reused. There is no need to rebuild a rate table.**
- **Find a naming convention which will allow you to reuse rate tables.**
- **Use the Table Definition page to update existing Table Names (if needed) to make it easier to read and associate to your Commission Schedules.**
- **[Appendix A](#) is an example of how to use the KeyDef to create a conflict between a Feature Option and a Commission Option.**

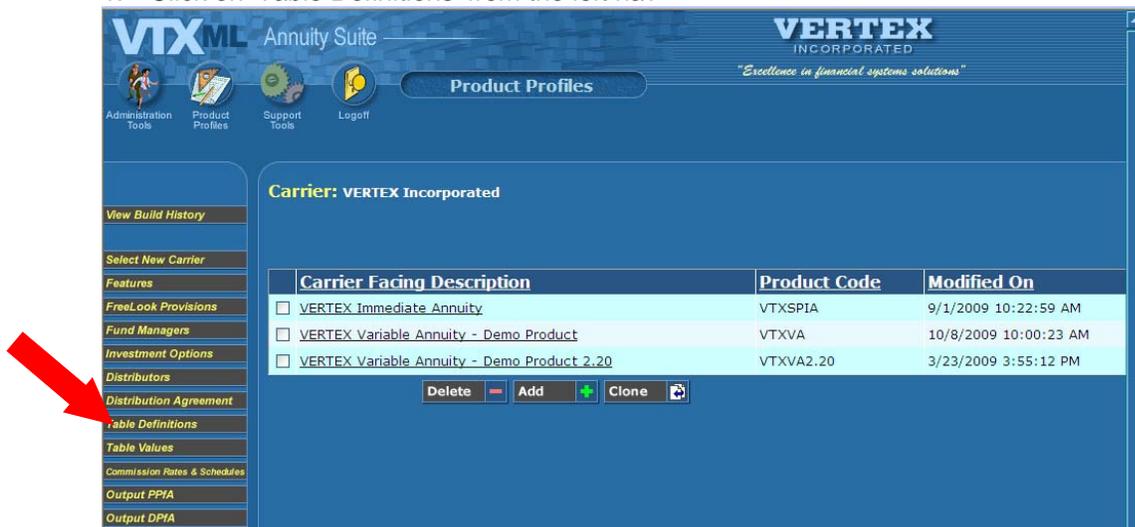
In this example, the user wants to restrict an option if a specific feature option (i.e. Rider1) is selected on the policy product. (i.e. the option is not available if Rider1 is selected on the policy product). However, Rider2 and Rider3 are not restricted.

Since there is no way to ‘restrict’ feature options on a rate table, we must look at this deliverable from a different approach. That approach is to create the rate table so that it is ‘inclusive’ instead of ‘restrictive’.

In other words, the rate table is created to include the riders that are allowed (i.e. Rider2 and Rider3) in the KeyDef. This way, when Rider1 is selected on the product, the option is not allowed because it is not included in the KeyDef.

Create the Table Definition

1. Click on ‘Table Definitions’ from the left nav



The screenshot shows the VTXML Annuity Suite interface. The left navigation menu includes: Administration Tools, Product Profiles, Support Tools, Logoff, View Build History, Select New Carrier, Features, FreeLook Provisions, Fund Managers, Investment Options, Distributors, **Table Definitions** (highlighted with a red arrow), Table Values, Commission Rates & Schedules, Output PPIA, and Output DPIA. The main content area displays 'Carrier: VERTEX Incorporated' and a table of table definitions.

Carrier Facing Description	Product Code	Modified On
<input type="checkbox"/> VERTEX Immediate Annuity	VTXSPIA	9/1/2009 10:22:59 AM
<input type="checkbox"/> VERTEX Variable Annuity - Demo Product	VTXVA	10/8/2009 10:00:23 AM
<input type="checkbox"/> VERTEX Variable Annuity - Demo Product 2.20	VTXVA2.20	3/23/2009 3:55:12 PM

Below the table are buttons for Delete, Add, and Clone.

2. Click 'Add' to add a table definition



3. Create a Name for the rate table.

a. **The rate table name must not include spaces!** Use '_' (underscore) to indicate a space.

b. Rate tables typically fall into 2 categories.

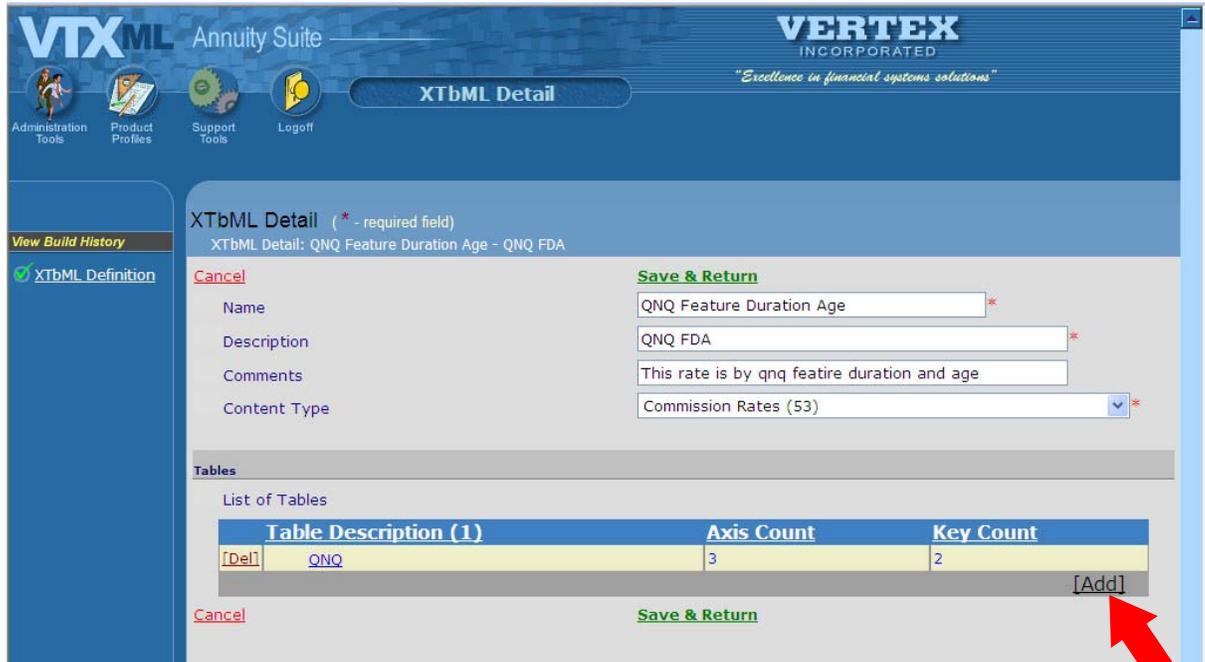
- Rates that are generic for all products (i.e. banded and non banded rates) and
- Rates for specific products and/or distributors. Rates for specific products and/or distributors should provide enough information to easily distinguish them from other rates. For example, a rate based on minimum premium, for *Wachovia, Product A, Option A* could be named '**Premium_ProductCusip_OptA_Wachovia**'.
- Examples of rate table definitions:
 1. 0-80:_5.00%_81-99:_2.50% for age banded rate
 2. NoBanding_2.75% for non banded rate
 3. Premium_ProductCusip_OptA_Generic for specified rate

4. Add a description - The description is user defined. It should explain the type of rates i.e. Age Band

5. Include a comment (Optional) - If more detail is needed about how the rates will be used. Platforms are not currently doing anything with this property.

6. Select 'Commission Rates (53)' or 'Fee (66)' in the Content Type list box.

7. Click 'Add' in the 'List of Tables' popup box. This popup box is used to add the [KeyDef](#) and [AxisDef](#).



Create the KeyDef and AxisDef Detail:

8. Add a description: - The List of Tables will vary upon the type of XTbML detail. The description should be created to include information regarding all tables. For example, if the table was for age banded rates only, the Table Description would be 'Age Band'. The table below provides some examples of common Table Descriptions that are used.

Description Names	Used for:
Age Band	Rates based upon age banding
No Banding	Rates where no banding is specified
Premium	Rates based upon minimum premium
Premium and Age Band	Rates based upon premium and age banding
Duration	Rates based upon duration
Duration and Premium	Rates based upon duration and premium
QNQ Premium and Age Band	Rates based upon Qualified/Nonqualified, premium and age banding

9. Add a scaling Factor – This will always be '0'.
10. Include a data Type – This field should always be set to 'Percentage (20)'.
11. Select the currency - 'US Dollar (USD)' – (This is optional).
12. Select the nation – US - (This is optional).
13. Specify the jurisdictions - The Jurisdictions box is used to restrict the rates to specific jurisdictions, if needed. To restrict a rate by jurisdiction, scroll through the list of Jurisdictions and click on the jurisdiction(s) that apply to the rate.
14. Complete the KeyDef Popup – KeyDefs are used to define non ordered rate variations, e.g. QNQ, Feature, Fund, etc... KeyDef is contained in the XML MetaData aggregate. [Click this link for procedures to add a KeyDef](#),
15. Complete the AxisDef Popup - AxisDefs are used to define ordered rate variations, e.g. for Age, No Banding, Premium, Duration, Date, etc... AxisDef is contained in the XML Values aggregate. [Click this link for procedures to add an Axis Def](#).

Table Definition

XTbML Table Definition (* - required field)
 XTbML Detail: QNQ Feature Duration Age - QNO FDA / XTbML Table Definition: QNQ

Cancel Save & Return

Table Definition

Description: QNQ *

Scaling Factor: 0 *

Data Type: Percentage (20) *

Currency: United States Dollar (USD)

Nation: [Dropdown]

Jurisdictions: Select All + Select None - (0)

- Alabama (1)
- Alaska (2)
- Arizona (4)
- Arkansas (5)
- California (6)

Axis

KeyDef

Axis Name (2)	Dimension Sequence
[Del] Feature	1
[Del] QNO	2

[Add]

AxisDef

Axis Name (3)	Dimension Sequence
[Del] Duration	3
[Del] Age	4
[Del] Premium	5

[Add]

Cancel Save & Return

Create the KeyDef:

- Click 'Add' in the KeyDef popup box to add KeyDef.
- Click 'OK' to the warning 'All table values will be deleted if you add this dimension. Are you sure you want to add?'
- Type in a Key Name to describe the KeyDef. For example, a KeyDef based upon a Feature would be named 'Feature'
- Type in a Dimension Sequence. This is a consecutive number always beginning with '1'. The sequence **MUST** increment by 1 across both KeyDef and Axis Def and be unique for each rate table. **(see Step 7)**
- Select a Key Type from the drop down list box. Key Type, Key Sub Type, Key Sub Class Type, Key Sub Class and Key Code Type fields are used together to define the KeyDef.
 - If Key Type is a string, you must specify a Key Sub Type, Key Sub Class Type and Key Sub Class fields. This is the Enumerated String Value in the PPfA MetaData.
 - If Key Type is a type code, you must select a Key Code Type from the dropdown. This is the EnumeratedTypeCodeValue in the PPfA MetaData.
- Select a Key Sub Type from the drop down list box – This should always be ProductCode (21)
- Select a Key Sub Class Type from the drop down list box: 32 = Sub Account, 86 = Annuity Rider, or 89 = Arrangement.
- Select a Key sub class from the drop down list box. Select the FeatureCode from the dropdown – *this is only used when the rate needs to vary by FeatureOption.*
- Select a Key Code Type from the drop down list box. Select the Lookup table the rate should vary. This should only be used if the KeyType = 1 TypeCode.

25. Click 'Add' in the Key Values Popup. There must be at least 1 Key Value created. The value can be a string that defines several key values i.e. 1, 2 or if the key type is a code, the value must exist within the product (i.e. the investment product code such as '005 or 007'. The table below is a guide to creating a KeyDef based upon a Feature and Qualified/Nonqualified.
26. Click Save & Return to save the KeyDef Values
27. Click Save & Return to save the KeyDef and return you to the XTbML Detail page.

Key Name	Feature	QualNonQual
Dimension Sequence	1	2
Key Type	Key is a String (2)	Key is a Type Code (1)
Key Sub Type	Product Code (21)	N/A
Key Sub Class Type	Feature Opt Product (86)	N/A
Key Sub Class	LSR	N/A
Key Code Type	N/A	Qualified Code (1062)
Key Values Popup	1...* values (005, 007)	1...* values (1, 2)

- This is an example of a Feature KeyDef

- This is an example of a String value (for Feature)

- This is an example of a Qualified/Not Qualified KeyDef

Non-Ordered Axis

Administration Tools | Product Profiles | Support Tools | Logoff

View Build History

XTbML Non-Ordered Axis (* - required field)

XTbML Detail: QNQ Feature Duration Age - QNQ FDA / XTbML Table Definition: QNQ / XTbML Non-Ordered Axis: QNQ

Cancel Save & Return

KeyDef

Key Name: QNQ *

Dimension Sequence: 2 *

Key Type: Key is a Type Code (1) *

Key Sub Type: [Dropdown]

Key Sub Class Type: [Dropdown]

Key Sub Class: [Dropdown]

Key Code Type: Qualified Code (1062)

Key Values

Value (2)	
[Del]	1
[Del]	2

Cancel Save & Return [Add]

Done Internet 100%

- This is an example of a Type Code value (for QNQ)

Non-Ordered Values

Administration Tools | Product Profiles | Support Tools | Logoff

View Build History

XTbML Non-Ordered Values (* - required field)

XTbML Detail: QNQ Feature Duration Age - QNQ FDA / XTbML Table Definition: QNQ / XTbML Non-Ordered Axis: QNQ / XTbML Non-Ordered Values: 1

Cancel Save & Return

Type Code Value: 1

String Value: [Empty Field]

Cancel Save & Return

Create the AxisDef:

28. From the [XTbML Detail page](#), click 'Add' in the AxisDef popup box.
29. Click 'OK' to the warning 'All table values will be deleted if you add this dimension. Are you sure you want to add?'
30. Type in an AxisDef Name to describe the AxisDef. For example, an AxisDef based upon Age would be named 'Age'.
31. Select a Scale Type from the drop down list box.
32. Select a Scale Sub-Type from the drop down list box.
33. Type in an Increment Value – '1'.
34. Type in a Dimension Sequence.
 - If there are no KeyDef defined, then the first AxisDef dimension sequence should be '1'
 - **If there are KeyDef defined, then the AxisDef dimension sequence should be the next number. For example, there are 2 KeyDefs with the dimension sequence 1 and 2. Therefore, the first AxisDef dimension sequence should be '3'.**
35. If the Rate varies by Duration then select a Mode from the drop down list box according to the scale type, see the table below
36. If the Rate varies by Premium then select a Banding type from the drop down list box according to the scale type, see the table below
37. Select Yes or No from the Continuous drop down list box according to the scale type, see the table below.
38. Click 'add' from the Ordered Values popup box to add values.
 - a. Type in an Axis Value. Click Save & Return. Repeat this step for each Axis Value.
39. The table below shows 4 common AxisDef and their corresponding values.

VTXML Field Name	Age	No Banding	Duration	Premium
Scale Type	Age (3)	Unknown (0)	Ordinal Date – units of time i.e. years, months, days (2)	Premium Amount (5)
Scale Sub-Type	Issue Age (1)	Unknown (0)	Contract Duration (15)	Gross cumulative premium (18)
Min Scale Value	0	N/A	N/A	N/A
Max Scale Value	90	N/A	N/A	N/A
Min Scale Date	N/A	N/A	N/A	N/A
Max Scale Date	N/A	N/A	N/A	N/A
Increment Value	1	0	1	1
Dimension Sequence	4	1	3	5
Mode	N/A	N/A	Annual (1)	N/A
Banding Type	N/A	N/A	N/A	Simple Banding (1)
Continuous	Yes	No	Yes	Yes
Ordered Values Popup	0, 76	-9999	1, 2, 3, etc	0, 10000

- This is an example of an AxisDef based upon 'Age'

XTbML Ordered Axis (* - required field)

XTbML Detail: QnaIQ_Feature_and_Age - 1 / XTbML Table Definition: 1 / XTbML Ordered Axis: Min Age

Cancel Save & Return

AxisDef

Name: Min Age *

Scale Type: Age (3) *

Scale Sub-Type: Issue Age (1) *

Min Scale Value: 0

Max Scale Value: 85

Min Scale Date: (yyyy-mm-dd)

Max Scale Date: (yyyy-mm-dd)

Increment Value: 1

Dimension Sequence: 3 *

Mode: *

Banding Type: *

Continuous: Yes

Ordered Values

Value (2)	
[Del]	0
[Del]	80

Cancel Save & Return [Add]

- This is an example of an AxisDef Axis value

XTbML Ordered Values (* - required field)

XTbML Detail: QIQ_Feature_Duration_Age - QIQ_FDA / XTbML Table Definition: QIQ / XTbML Ordered Axis: Age / XTbML Ordered Values: 0

Cancel Save & Return

Axis Value: 0

Cancel Save & Return

Create the Table Values

40. Click on 'Table Values' in the left nav

41. Scroll the list of Rate Table Names, and then click on the table created in the previous steps.

Carrier: VERTEX Incorporated "

View Build History

Select New Carrier

Features

FreeLook Provisions

Fund Managers

Investment Options

Distributors

Distribution Agreement

Table Definitions

Table Values

Commission Rates & Schedules

Output PPIA

Output DPFA

Rate Table Name	Modified On
1test-Age	10/23/2009 3:52:53 PM
Annual Fee-Fee XTbML Test	6/17/2009 8:20:56 PM
Dur1/8 0-75 5/2% 76-80 4.5/1% 81+ 3/1%-Age Band	6/17/2009 8:20:55 PM
Dur1/8 0-75 6/2.5% 76-80 5/1.5% 81+ 3.5/1.5%-Age Band	6/17/2009 8:20:55 PM
Dur1/8 0-75 7/2.5% 76-80 6/1.5% 81+ 4.5/1.5%-Age Band	6/17/2009 8:20:55 PM
Premium_ProductCusip_OptA_Wachovia-QNQ PremDurAge	10/28/2009 1:43:28 PM
QNO Feature Duration Age-QNO	10/28/2009 1:57:49 PM
QualNQ Feature_and Age-1	6/17/2009 8:20:57 PM
RateTableName-RateTableDesc	6/17/2009 8:20:55 PM
Vertex_Dist1_Option1-Option 1 4999 max prem	6/17/2009 8:20:49 PM
Vertex_Dist1_Option2-Vertex_Dist1_Option2	6/17/2009 8:20:49 PM
Vertex_Dist2_Option1-Vertex_Dist2_Option1	6/17/2009 8:20:49 PM

Done Internet 100%

- VTXML displays a screen that has the KeyDef and Axis Def criteria created in the Table Definitions. Scroll through the page and type in the appropriate rates that apply to each KeyDef and AxisDef.
- Click Save when all rates have been entered.

Carrier: VERTEX Incorporated 'EL create rate table 12/31/2009'

Submit Cancel

QNO Feature Duration Age - QNO: Count(48)

Feature	QNO	Duration	Age	Premium	Rate
005	1	1	0	0	<input type="text"/>
005	1	1	0	10000	<input type="text"/>
005	1	1	76	0	<input type="text"/>
005	1	1	76	10000	<input type="text"/>
005	1	2	0	0	<input type="text"/>
005	1	2	0	10000	<input type="text"/>
005	1	2	76	0	<input type="text"/>
005	1	2	76	10000	<input type="text"/>
005	1	3	0	0	<input type="text"/>
005	1	3	0	10000	<input type="text"/>

Appendix A

Deliverable:

Distributor ABC has 3 commission options: Option A, Option B and Option C. All 3 commission options are based upon the feature options that are selected on the policy product. Option A does not allow commissions for Rider1. The table below shows the commission options:

Feature Option	Option A	Option B	Option C
Rider1	Not Allowed	Allowed	Allowed
Rider2	Allowed	Allowed	Allowed
Rider3	Allowed	Allowed	Allowed

In this example, Option A is not available if Rider1 is selected on the policy product (i.e. the user wants to restrict 'Option A' if Rider1 is selected). However, Rider2 and Rider3 are not restricted on Option A.

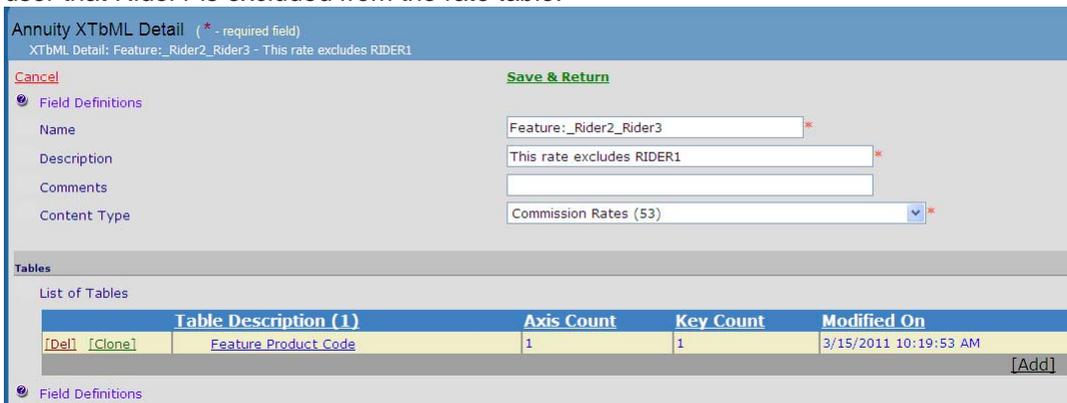
Since there is no way to 'restrict' feature options on a rate table, we must look at this deliverable from a different approach. This approach is to create the rate table so that it is 'inclusive' instead of 'restrictive'.

In other words, the rate table is created to include the riders that are allowed (i.e. Rider2 and Rider3) in the KeyDef. This way, when Rider1 is selected on the product, the option is not allowed because it is not included in the KeyDef.

Solution:

- Create a rate table for Option A that has a KeyDef and **include** the Riders that **were not** restricted (Rider2 and Rider3). You can use the 'Description' to The KeyDef looks like this:
 - Key Type = String (2)
 - Key Sub Type = Product Code (21)
 - Key Sub Class Type = AnnRider (86)
 - Key Sub Class = CDSC
 - 2 Enumerated Values = 'Rider 2' and 'Rider 3' (for the Riders that are allowed)
- Create rate tables for Option B and Option C that has a KeyDef and **include** the Riders that **were not** restricted (Rider1, Rider2 and Rider3). The KeyDef looks like this:
- Create a commission schedule for the distributor with 3 Options: Option A, Option B and Option C.

This is a screen print of the Rate Table that excludes Rider1. You can use the Description to inform the user that Rider1 is excluded from the rate table.



Annuity XTbML Detail (* - required field)
 XTbML Detail: Feature:_Rider2_Rider3 - This rate excludes RIDER1

Cancel Save & Return

Field Definitions

Name: Feature:_Rider2_Rider3 *

Description: This rate excludes RIDER1 *

Comments:

Content Type: Commission Rates (53) *

Tables

List of Tables

Table Description (1)	Axis Count	Key Count	Modified On
[Del] [Clone] Feature_Product_Code	1	1	3/15/2011 10:19:53 AM

[Add]

Field Definitions

This is a screen print of the Table Definition to show the Axis with both the KeyDef and the AxisDef already created.

It is important that the Dimension Sequence are unique and consecutively numbered.

Table Definition

Description: Feature Product Code

Scaling Factor: 0

Data Type: Percentage (20)

Currency: [Dropdown]

Nation: [Dropdown]

Jurisdictions: Show Selected Select All+ Select None- (0)

- Alabama (1)
- Alaska (2)
- Arizona (4)
- Arkansas (5)
- California (A)

Axis

Axis Name (1)	Dimension Sequence	Modified On
[Del] Product Code	1	3/15/2011 9:25:20 AM
[Del] No Age	2	3/15/2011 9:27:07 AM

This is a screen print of the KeyDef.

The 'Key Sub Type' and 'Key Sub Type Class' are used together for a rate table that requires specific features options are selected on the policy product. It can require 1 or more feature options. In this example, the feature options 'Rider2' and 'Rider3' are allowed when this rate table is selected on Option A.

Cancel Save & Return

Field Definitions

KeyDef

Key Name: Product Code

Dimension Sequence: 1

Key Type: String (2)

Key Sub Type: Product Code (21)

Key Sub Class Type: Feature Product (191)

Key Sub Class: CDSC

Key Code Type: [Dropdown]

Key Values

Value (2)	Modified On
[Del] Rider2	3/15/2011 9:25:41 AM
[Del] Rider3	3/15/2011 9:25:51 AM

Cancel Save & Return

Below are snippets from the ppfa to show the rate that 'excludes' Rider1.

This is a snippet of the PolicyProductInfo

(/TXLife/TXLifeRequest/OLife/DistributionAgreement/PolicyProductInfo):

<PolicyProductInfo>

<PolicyProductInfoKey>PPI4555</PolicyProductInfoKey>

```

<ProductCode>YourProductCodeHere</ProductCode>
<CarrierCode>99999</CarrierCode>
<NettingAllowedInd tc="1">True</NettingAllowedInd>
<DefaultCommCode>2</DefaultCommCode>
<AdvancingAllowedInd tc="0">False</AdvancingAllowedInd>
<CommScheduleCode>CS6147</CommScheduleCode>
<CommOptionAvailable>
  <CarrierCommCode>2</CarrierCommCode>
  <CommOptionDesc>Option A (not available w/ Rider1)</CommOptionDesc>
  <CommOptionName>Option A (not available w/ Rider1)</CommOptionName>
</CommOptionAvailable>
</PolicyProductInfo>

```

This is a snippet of the XTbML (/TXLife/TXLifeRequest/XTbML):

```

<XTbML id="CC6590 ">
  <ContentClassification>
    <TableIdentity>CC6590</TableIdentity>
    <ProviderDomain>YourProviderDomainNameHere</ProviderDomain>
    <ProviderName> ProviderNameHere.</ProviderName>
    <ContentType tc="53">Commission Rates</ContentType>
    <TableName>No_age_banding_6.00%_CDSC</TableName>
    <TableDescription>CDSC</TableDescription>
    <Comments>CDSC</Comments>
  </ContentClassification>
  <Table>
    <MetaData>
      <ScalingFactor>0</ScalingFactor>
      <DataType tc="20">Percentage</DataType>
      <TableDescription>No banding CDSC</TableDescription>
      <KeyDef id="_db11e4de">
        <KeyType tc="2">String</KeyType>
        <KeySubType tc="21">Product Code</KeySubType>
        <KeySubClassType tc="86">AnnRider</KeySubClassType>
        <KeySubClass>CDSC</KeySubClass>
        <KeyName>Feature</KeyName>
        <DimensionSequence>1</DimensionSequence>
        <EnumeratedStringValue>Rider2</EnumeratedStringValue>
        <EnumeratedStringValue>Rider3</EnumeratedStringValue>
      </KeyDef>
    </MetaData>
    <Values>
      <Key KeyIs="Rider2" KeyDefID="_db11e4de">
        <Y>6</Y>
      </Key>
      <Key KeyIs="Rider3" KeyDefID="_db11e4de">
        <Y>6</Y>
      </Key>
    </Values>
  </Table>
</XTbML>

```