



# FanXE

## *Fantastic XML Editor*

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# Introduction

- GUI overview



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- Command Line Interface



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- Application Examples



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  - **ItemSet:** Report Form Meta Data



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  - **SDMX**: Time Series XML Data



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- Choosing Packages



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# GUI Overview

ItemSet V1.52 -- Production

[File Edit] [16:25:21] Showing fanxe://CallIndex//Series[@MDRM='4174']

Search: Trim Search

Tree: CallIndex //Series[@MDRM='4174'] Trim Search

Call Report Index

Uniform Item Set

15500 STFBEID\_XDO On deposits

15500 STFBEID\_XDO On deposits

Booked in Domestic Offices; Flow;

Formula

Date: 1987/03-9999/12

= +CAL15400-CAL15600 (Depth 3)

= +STFBEID -STFBEID\_XFO

Input Series

Date: 1984/09-1986/12

FFIEC-031: +RIAD4174+RIAD4176

FFIEC-032: +RIAD4174+RIAD4176

Log Edit 15310

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
15310	HO.	STFBEI	XQA	XDA	XDO	XMS	XBVS	XTE

Description: Total interest expense Flow

Type: Formula Delete Duplicate Add Balance-Sheet Equivalent

Date: 19840930 - 20001231

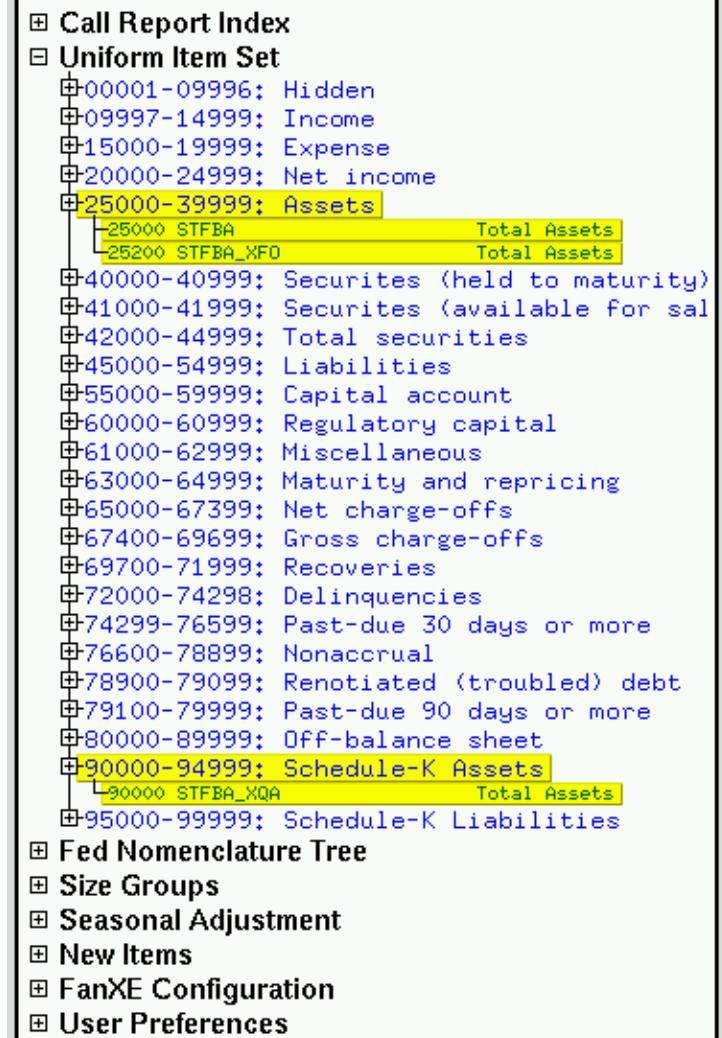
Depth: 4

Add 15300 15320 13450 16550

Fed Nomenclature Tree



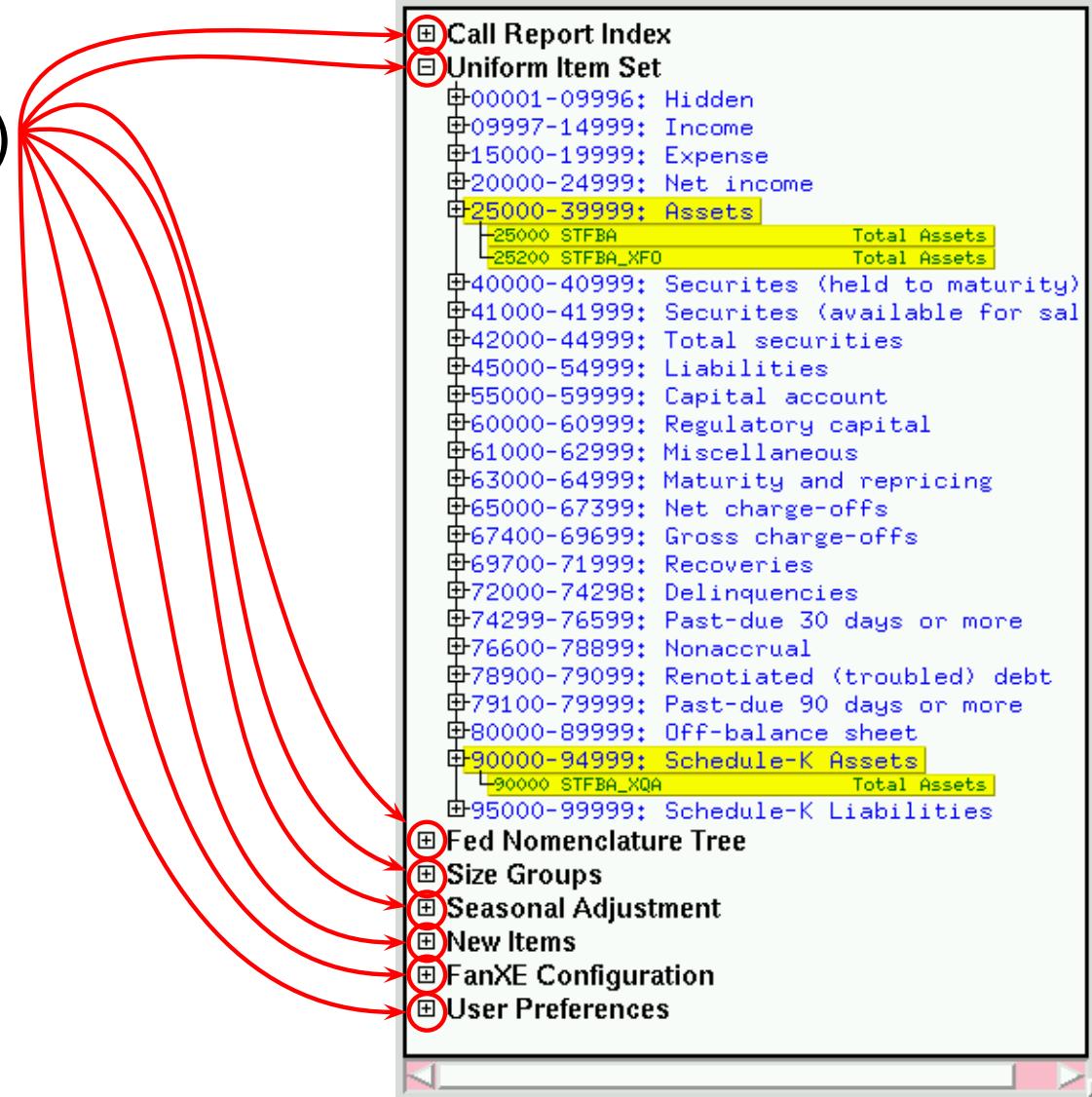
# Tree Pane





# Tree Pane

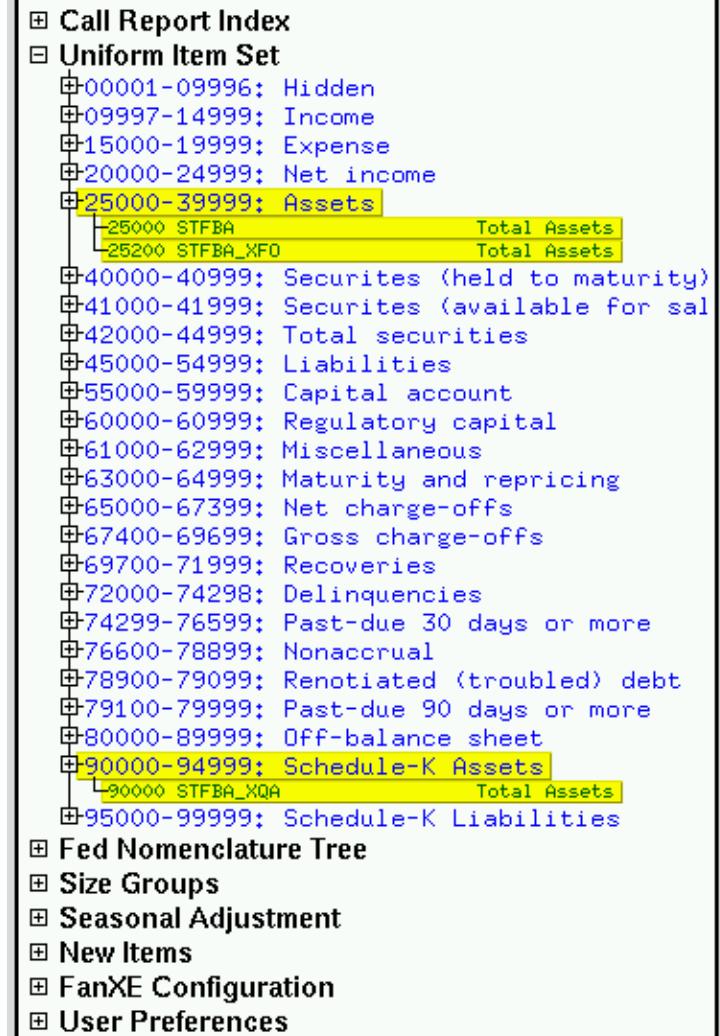
XML Documents (DOMs)





# Tree Pane

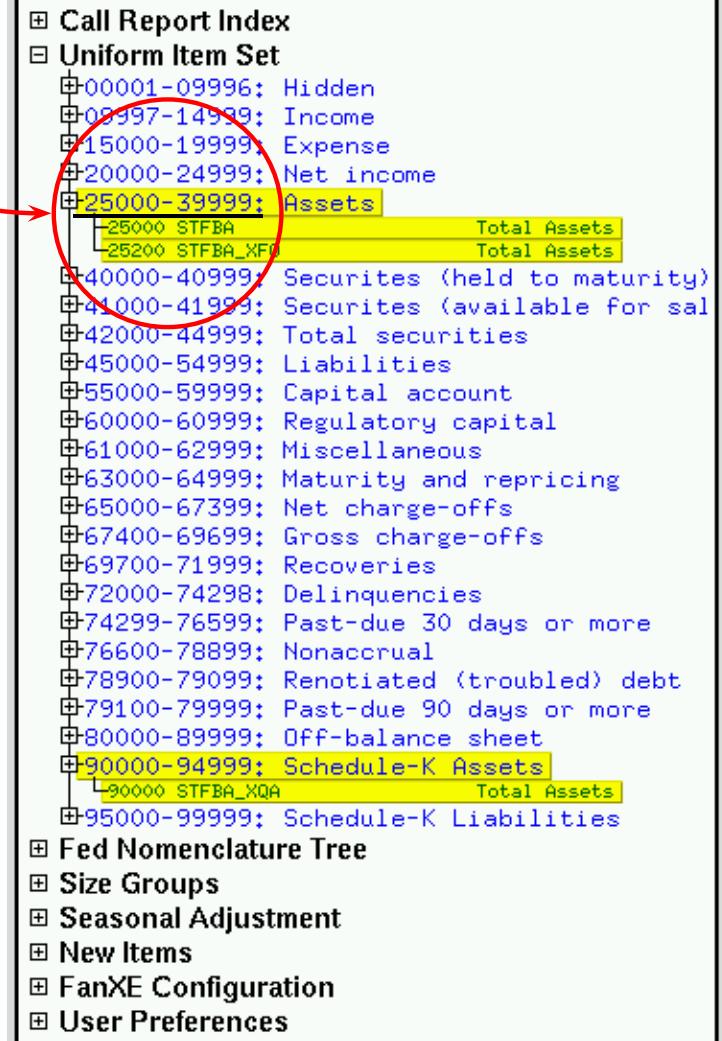
```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```





# Tree Pane

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```





# Tree Pane

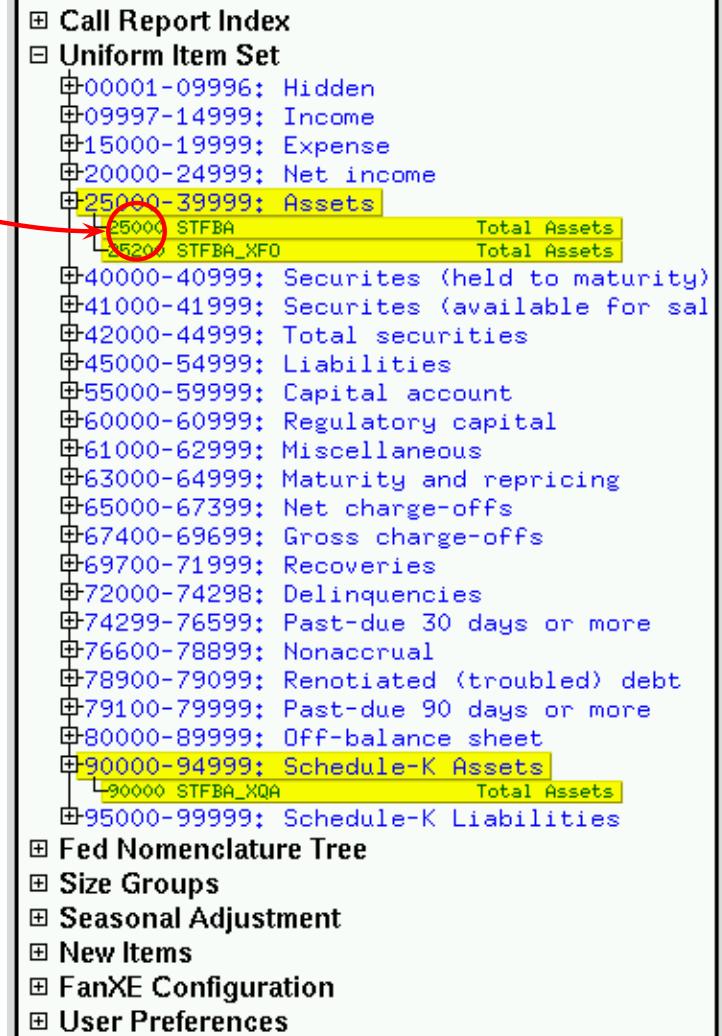
```
<Section Range="25000-39999" Title="Assets">
<Series N="25000" Fedname="STFBA">Total Assets
  <Item Type="Formula" BeginDate="19840330" EndDate="99991231">
    <Formula Depth="10">
      <CAL f="+">25300</CAL>
      <CAL f="+">37300</CAL>
      <Alias> +STFBAL +STFBAN</Alias>
    </Formula>
  </Item>
  <Note>RCFD2170</Note>
</Series>
```

Call Report Index	
Uniform Item Set	
+00001-09996:	Hidden
+09997-14999:	Income
+15000-19999:	Expense
+20000-24999:	Net income
+25000-39999:	Assets
+25000 STFBA	Total Assets
+25200 STFBA_XF	Total Assets
+40000-40999:	Securites (held to maturity)
+41000-41999:	Securites (available for sal
+42000-44999:	Total securities
+45000-54999:	Liabilities
+55000-59999:	Capital account
+60000-60999:	Regulatory capital
+61000-62999:	Miscellaneous
+63000-64999:	Maturity and repricing
+65000-67399:	Net charge-offs
+67400-69699:	Gross charge-offs
+69700-71999:	Recoveries
+72000-74298:	Delinquencies
+74299-76599:	Past-due 30 days or more
+76600-78899:	Nonaccrual
+78900-79099:	Renegotiated (troubled) debt
+79100-79999:	Past-due 90 days or more
+80000-89999:	Off-balance sheet
+90000-94999:	Schedule-K Assets
+90000 STFBA_XQA	Total Assets
+95000-99999:	Schedule-K Liabilities
Fed Nomenclature Tree	
Size Groups	
Seasonal Adjustment	
New Items	
FanXE Configuration	
User Preferences	



# Tree Pane

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```





# Tree Pane

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```

Call Report Index	
Uniform Item Set	
⊕	00001-09996: Hidden
⊕	09997-14999: Income
⊕	15000-19999: Expense
⊕	20000-24999: Net income
⊕	25000-39999: Assets
⊕	25000 STFBA Total Assets
⊕	25200 STFBA_XFO Total Assets
⊕	40000-40999: Securities (held to maturity)
⊕	41000-41999: Securities (available for sal
⊕	42000-44999: Total securities
⊕	45000-54999: Liabilities
⊕	55000-59999: Capital account
⊕	60000-60999: Regulatory capital
⊕	61000-62999: Miscellaneous
⊕	63000-64999: Maturity and repricing
⊕	65000-67399: Net charge-offs
⊕	67400-69699: Gross charge-offs
⊕	69700-71999: Recoveries
⊕	72000-74298: Delinquencies
⊕	74299-76599: Past-due 30 days or more
⊕	76600-78899: Nonaccrual
⊕	78900-79099: Renegotiated (troubled) debt
⊕	79100-79999: Past-due 90 days or more
⊕	80000-89999: Off-balance sheet
⊕	90000-94999: Schedule-K Assets
⊕	90000 STFBA_XQA Total Assets
⊕	95000-99999: Schedule-K Liabilities
Fed Nomenclature Tree	
Size Groups	
Seasonal Adjustment	
New Items	
FanXE Configuration	
User Preferences	



# Tree Pane

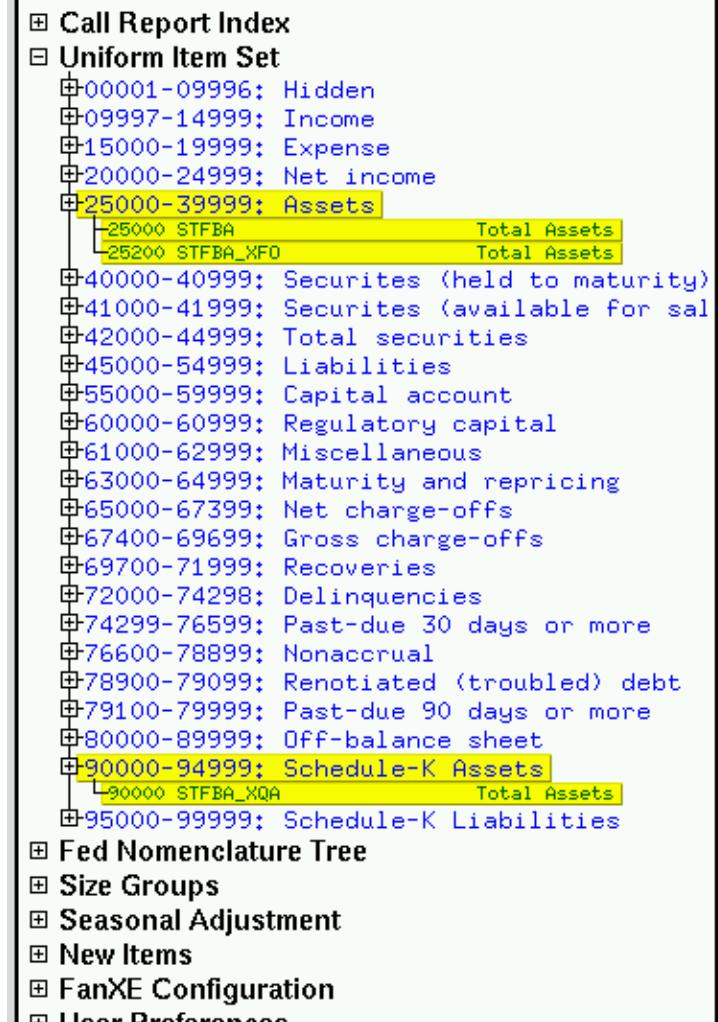
```
<Section Range="25000-39999" Title="Assets">
<Series N="25000" Fedname="STFBA">Total Assets
  <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
    <Formula Depth="10">
      <CAL f="+">25300</CAL>
      <CAL f="+">37300</CAL>
      <Alias> +STFBAL +STFBAN</Alias>
    </Formula>
  </Item>
  <Note>RCFD2170</Note>
</Series>
```

Call Report Index	
Uniform Item Set	
⊕ 00001-09996:	Hidden
⊕ 09997-14999:	Income
⊕ 15000-19999:	Expense
⊕ 20000-24999:	Net income
⊕ 25000-39999:	Assets
⊕ 25000 STFBA	Total Assets
⊕ 25200 STFBAL_XFO	Total Assets
⊕ 40000-40999:	Securites (held to maturity)
⊕ 41000-41999:	Securites (available for sal
⊕ 42000-44999:	Total securities
⊕ 45000-54999:	Liabilities
⊕ 55000-59999:	Capital account
⊕ 60000-60999:	Regulatory capital
⊕ 61000-62999:	Miscellaneous
⊕ 63000-64999:	Maturity and repricing
⊕ 65000-67399:	Net charge-offs
⊕ 67400-69699:	Gross charge-offs
⊕ 69700-71999:	Recoveries
⊕ 72000-74298:	Delinquencies
⊕ 74299-76599:	Past-due 30 days or more
⊕ 76600-78899:	Nonaccrual
⊕ 78900-79099:	Renegotiated (troubled) debt
⊕ 79100-79999:	Past-due 90 days or more
⊕ 80000-89999:	Off-balance sheet
⊕ 90000-94999:	Schedule-K Assets
⊕ 90000 STFBAL_XQA	Total Assets
⊕ 95000-99999:	Schedule-K Liabilities
Fed Nomenclature Tree	
Size Groups	
Seasonal Adjustment	
New Items	
FanXE Configuration	
User Preferences	



# Tree Pane

Selecting a node on the tree will apply a style sheet and display the results in the View Pane.





# View Pane

← → ? 25000 STFBA Total Assets

**Edit**

25000 STFBA Total Assets

**Formula**

Date: 1984/09-9999/12

= +CAL25300+CAL37300 (Depth 10)

= +STFBAL +STFBAN

Notes: RCFD2170

```
<Section Range="25000-39999" Title="Assets">
<Series N="25000" Fedname="STFBA">Total Assets
<Item Type="Formula" BeginDate="19840930" EndDate="99991231">
<Formula Depth="10">
<CAL f="+">25300</CAL>
<CAL f="+">37300</CAL>
<Alias> +STFBAL +STFBAN</Alias>
</Formula>
</Item>
<Note>RCFD2170</Note>
</Series>
```



# View Pane

The screenshot shows the FanXE XML Editor's View Pane. At the top, there is a toolbar with icons for back, forward, and help, followed by the node path "25000 STFBA" and the label "Total Assets". Below the toolbar, there is a red circle highlighting the "Edit" button, which is located in the top-left corner of the main pane. The main pane displays the following information:

**25000 STFBA Total Assets**

**Formula**

Date: 1984/09-9999/12

= +[CAL25300](#)+[CAL37300](#) (Depth 10)

= +STFBAL +STFBAN

**Notes:** RCFD2170

Selecting the **Edit** button will apply another style sheet and open the results in the Tab Paned.



# Tab Pane

Log

25000 STFBA Total Assets

Save Refresh XML Cancel

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
25000	HO.	STFBA	XQA	XDA XFA	XDO XFO	XMVS	XBVS	XTE

Description: Total Assets  Flow

Type: Formula

Date: 19840930 - 99991231

Depth: 10

Add 25300 37300

Alias: +STFBA/ +STFBAN

Add an Input Series Add a Formula Add a Split Add a PlaceHolder

Notes: RCFD2170

Save Refresh XML Cancel



# Tab Pane

Log    Total Assets

Save Refresh XML Cancel

Size: XS3A4

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
25000	HO.	STFBA		<input type="checkbox"/> _XDA <input type="checkbox"/> _XFA	<input type="checkbox"/> _XDO <input type="checkbox"/> _XFO	<input type="checkbox"/> _XMVS	<input type="checkbox"/> _XBVS	<input type="checkbox"/> _XTE

Description: Total Assets  Flow

Type: Formula

Date: 19840930 - 99991231

Depth: 10

Add  25300  37300

Alias: +STFBAL +STFBAN

Add an Input Series Add a Formula Add a Split Add a PlaceHolder

Notes: RCFD2170

Save Refresh XML Cancel

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# Tab Pane

Log

Close 25000 STFBA Total Assets

Edit: 25000  
Size: XS3A4

Save Refresh XML Cancel

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
25000	HO	STFBA		<input type="checkbox"/> _XDA <input type="checkbox"/> _XFA	<input type="checkbox"/> _XDO <input type="checkbox"/> _XFO	<input type="checkbox"/> _XMVS	<input type="checkbox"/> _XBVS	<input type="checkbox"/> _XTE

Description: Total Assets Flow

Type: Formula Delete Duplicate Add Balance-Sheet Equivalent

Date: 19840930 - 99991231

Depth: 10

Add 25300 37300

Alias: +STFBAL +STFBAN

Add an Input Series Add a Formula Add a Split Add a PlaceHolder

Notes: RCFD2170 Delete

Save Refresh XML Cancel

```
<Section Range="25000-39999" title="Assets">
<Series N="25000" Fedname="STFBA">Total Assets
<Item Type="Formula" BeginDate="19840930" EndDate="99991231">
<Formula Depth="10">
<CAL f="+">25300</CAL>
<CAL f="+">37300</CAL>
<Alias> +STFBAL +STFBAN</Alias>
</Formula>
</Item>
<Note>RCFD2170</Note>
</Series>
```



# Tab Pane

Log Close 25000 STFBA Total Assets

Edit: 25000  
Size: XS3A4

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
25000	HO.	STFBA		XDA XQA XFA	XDO XFO	XMVS	XBVS	XTE

Description: Total Assets Flow

Type: Formula Delete Duplicate Add Balance-Sheet Equivalent

Date: 19840930 - 99991231

Depth: 10

Add 25300 37300  
Alias: +STFBAL +STFBAN

Add an Input Series Add a Formula Add a Split Add a PlaceHolder

Notes: RCFD2170 Delete

Save Refresh XML Cancel

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# Tab Pane

Log Close Back Forward 25000 STFBA Total Assets

Edit: 25000  
Size: XS3A4

Save Refresh XML Cancel

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent		
25000	HO.	STFBA		<input type="checkbox"/> _XQA	<input type="checkbox"/> _XDA	<input type="checkbox"/> _XDO	<input type="checkbox"/> _XMVS	<input type="checkbox"/> _XBVS	<input type="checkbox"/> _XFO	<input type="checkbox"/> _XTE

Description: Total Assets Flow

Type: **Formula** Delete Duplicate Add Balance-Sheet Equivalent

Date: 19840930 - 99991231

Depth: 10

Add + 25300 + 37300

Alias: +STFBAN +STFBAN

Add an Input Series Add a Formula Add a Split Add a PlaceHolder

Notes: RCFD2170 Delete

Save Refresh XML Cancel

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAN +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# Tab Pane

Screenshot of a software application window titled "25000 STFBA" showing "Total Assets". The window includes a toolbar with "Log", "Edit: 25000", "Size: XS3A4", "Save", "Refresh", "XML", and "Cancel". A table displays various asset categories and their sub-components.

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
25000	HO	STFBA		_XDA _XFA	_XDO _XFO	_XMVS	_XBVS	_XTE

Description: Total Assets  Flow

Type: Formula

Date: 19840930 - 99991231

Depth: 10

Add

Alias: +STFBAL +STFBAN

Add an Input Series

Notes: RCFD2170

Save Refresh XML Cancel

The screenshot illustrates the use of a Tab Pane. A blue curved arrow points from the "Add Balance-Sheet Equivalent" button in the main toolbar to a red circle highlighting a specific node in the XML code. A red curved arrow points from the "Delete" button in the formula editor to another red circle highlighting a different node in the XML code.

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Type="1">
        <CAL f="+">25300</CAL>
        <CAL f="-">37300</CAL>
        <Alias>+STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# Tab Pane

Log Close 25000 STFBA Total Assets

Edit: 25000  
Size: XS3A4

Save Refresh XML Cancel

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
25000	HO.	STFBA	XQA	XDA XDO XFA XFO	XMS XBS XTE			

Description: Total Assets Flow

Type: Formula Delete Duplicate Add Balance-Sheet Equivalent

Date: 19840930 - 99991231

Depth: 10

Add (+) 25300 (-) 37300

Alias: +STFBA/+STFBAN

Add an Input Series Add a Formula Add a Split Add a PlaceHolder

Notes: RCFD2170 Delete

Save Refresh XML Cancel

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias>+STFBA/+STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# Tab Pane

Log Close 25000 STFBA Total Assets

Edit: 25000  
Size: XS3A4

Save Refresh XML Cancel

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
25000	HO.	STFBA	_XQA	_XDA _XFA	_XDO _XFO	_XMVS	_XBVS	_XTE

Description: Total Assets Flow

Type: Formula Delete Duplicate Add Balance-Sheet Equivalent

Date: 19840930 - 99991231

Depth: 10

Add 25300 37300  
Alias: +STFBAL +STFBAN

Add an Input Series Add a Formula Add a Split Add a PlaceHolder

Notes: RCFD2170 Delete

Save Refresh XML Cancel

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# Tab Pane

Screenshot of a software application window titled "25000 STFBA Total Assets". The window contains various tabs and sections for managing asset data.

**Log:** Close, Log, Edit: 25000, Size: XS3A4

**Buttons:** Save, Refresh, XML, Cancel

**Data Grid:** N, Historical, Fedname, Quarterly Average, Attributable (Domestic Foreign), Booked (Domestic Foreign), Market Value Securities, Book Value Securities, Taxable Equivalent

N	Historical	Fedname	Quarterly Average	Attributable (Domestic Foreign)	Booked (Domestic Foreign)	Market Value Securities	Book Value Securities	Taxable Equivalent
25000	HO	STFBA		XDA XQD XFA XFO	XMS XBS XTE			

**Description:** Total Assets  Flow

**Type:** Formula  Delete  Duplicate  Add Balance-Sheet Equivalent

**Date:** 19840930 - 99991231

**Depth:** 10

**Add:** + 25300 - 37300

**Alias:** +STFBAL +STFBAN

**Buttons:** Add an Input Series, Add a Formula, Add a Split, Add a PlaceHolder

**Notes:** RCFD2170

**Buttons:** Save, Refresh, XML, Cancel

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# GUI Configuration

itemset #2: Edit Tree

Tree

(Close) (Refresh) (XML) (Cancel)

DisplayStyle: Toplevel  
Browse: UniformSeries  
Edit:

Name: Section  
Title:  
set title "[node @Range]; [node @Title]"  
Open when loaded:   
Browse: Section  
Edit:  
DisplayStyle: Section

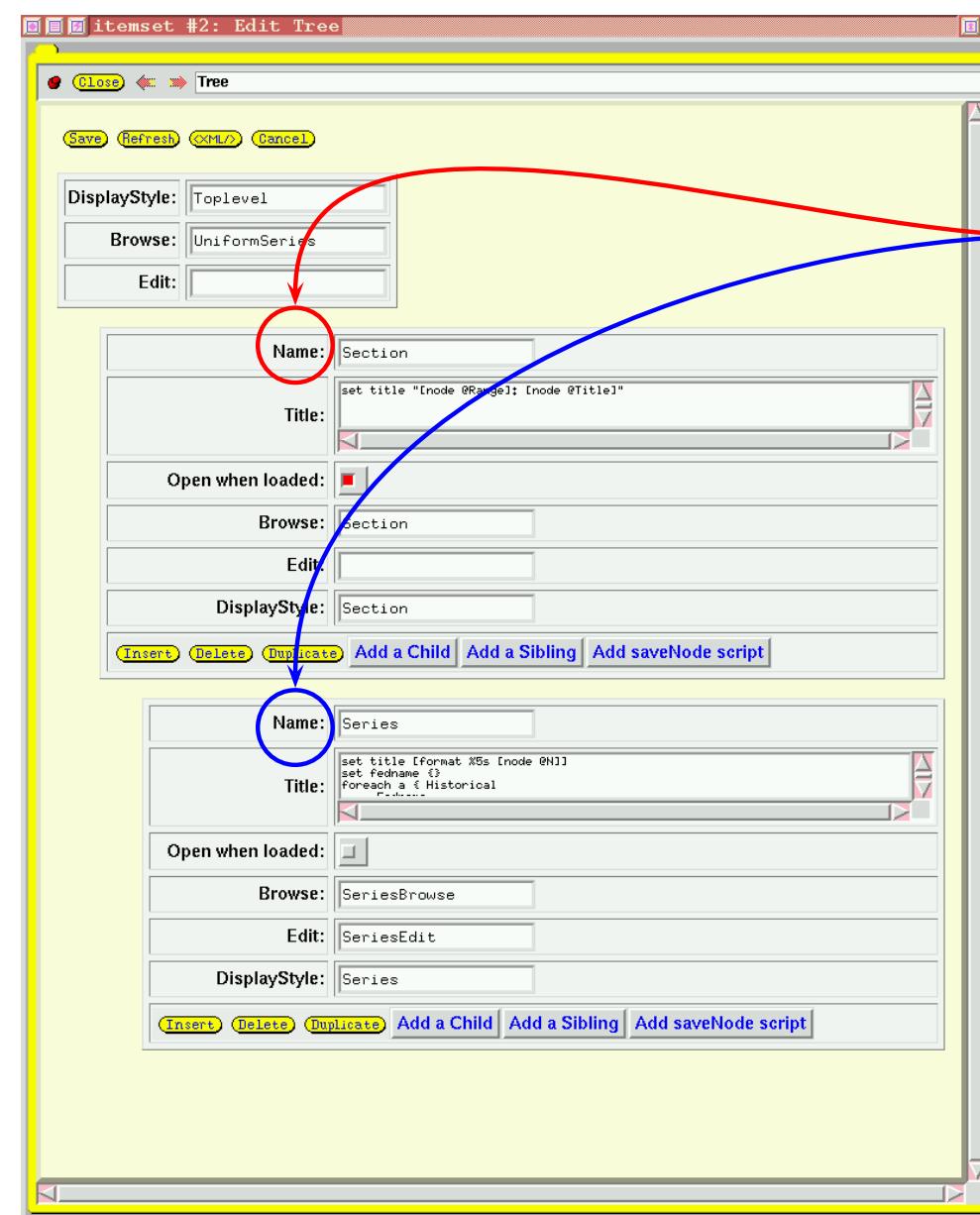
(Insert) (Delete) (Duplicate) (Add a Child) (Add a Sibling) (Add saveNode script)

Name: Series  
Title:  
set title [format %5s [node @N]]  
set fname {}  
foreach a { Historical  
... }  
Open when loaded:   
Browse: SeriesBrowse  
Edit: SeriesEdit  
DisplayStyle: Series

(Insert) (Delete) (Duplicate) (Add a Child) (Add a Sibling) (Add saveNode script)



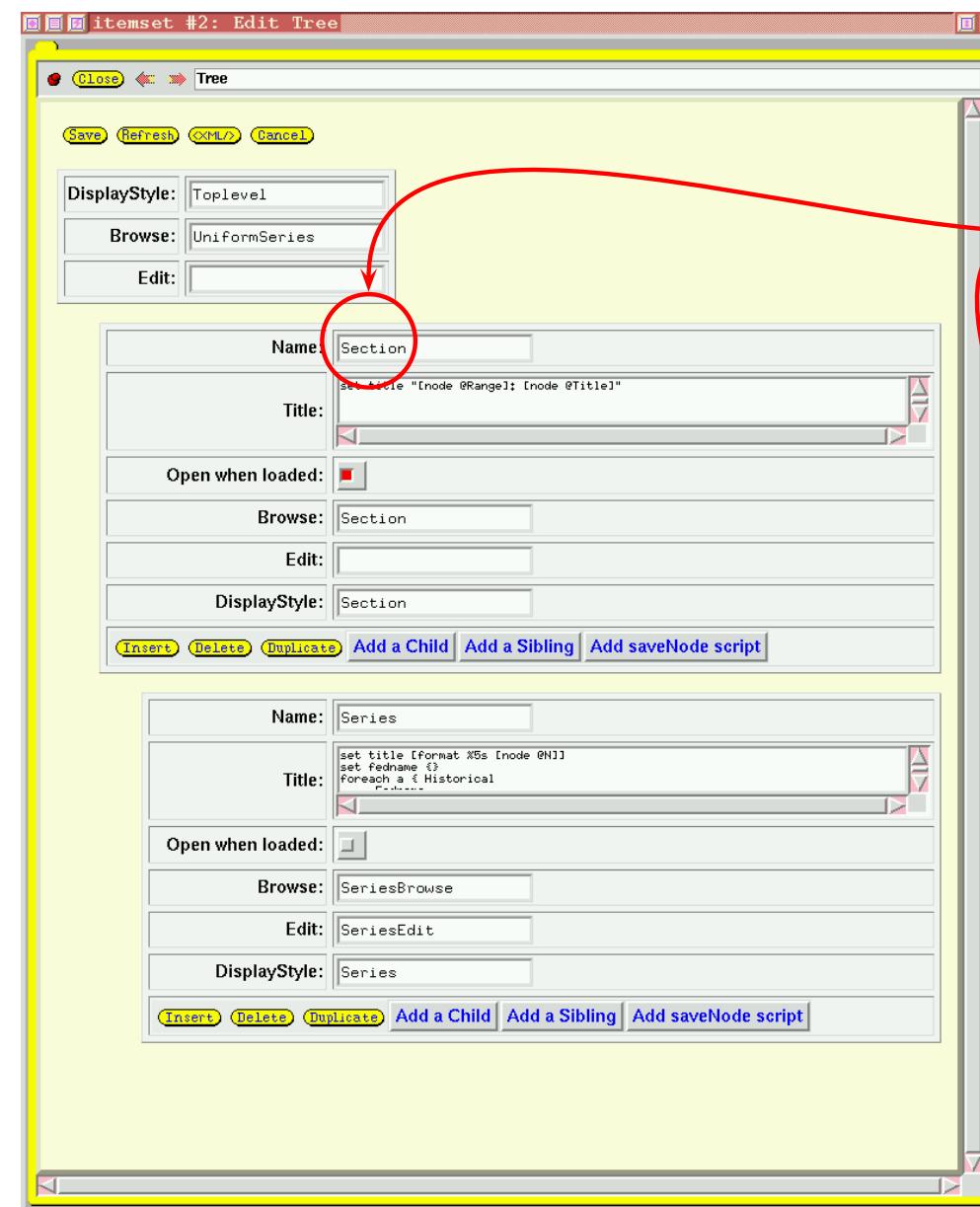
# GUI Configuration



“Name” of the element to be displayed in the Tree.



# GUI Configuration



“Name” of the element to be displayed in the Tree.

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# GUI Configuration

itemset #2: Edit Tree

Tree

Close Refresh XML Cancel

DisplayStyle: Toplevel  
Browse: UniformSeries  
Edit:

Name: Section  
Title:  
set title "[node @Range]; [node @Title]"  
Open when loaded:   
Browse: Section  
Edit:  
DisplayStyle: Section

Insert Delete Duplicate Add a Child Add a Sibling Add saveNode script

Name: Series  
Title:  
set title [format X5s [node @N]]  
set pathname {}  
foreach a { Historical  
... }  
Open when loaded:   
Browse: SeriesBrowse  
Edit: SeriesEdit  
DisplayStyle: Series

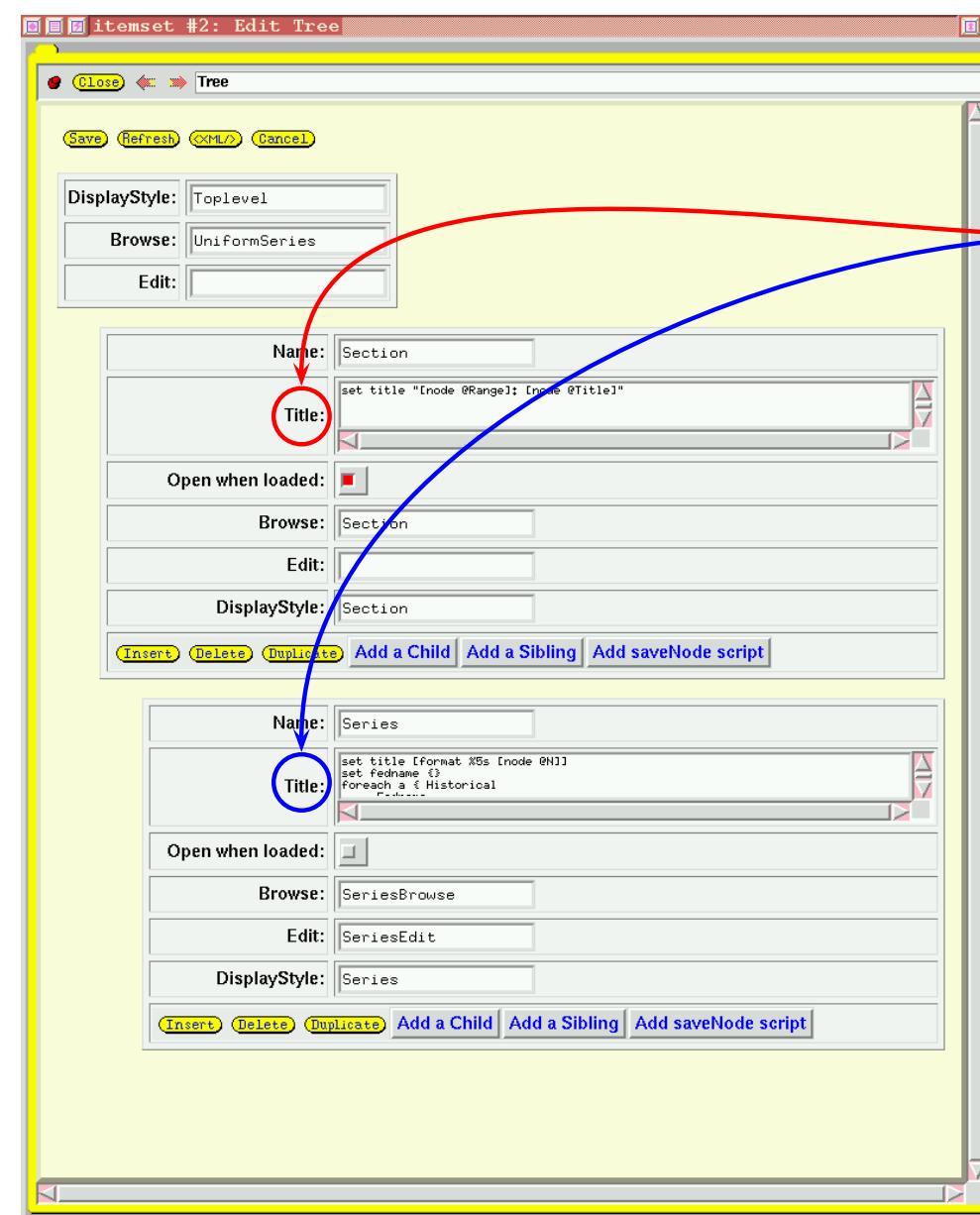
Insert Delete Duplicate Add a Child Add a Sibling Add saveNode script

“Name” of the element to be displayed in the Tree.

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# GUI Configuration



The “Title” contains Tcl code to create the Tree label.



# GUI Configuration

The screenshot shows the 'itemset #2: Edit Tree' window with two tree nodes defined:

**Node 1: Section**

Name:	Section
Title:	set title "[node @Range]: [node @Title]"
Open when loaded:	<input checked="" type="checkbox"/>
Browse:	Section
Edit:	
DisplayStyle:	Section

**Node 2: Series**

Name:	Series
Title:	set title [Format %5s [node @N]] set fedname @ Foreach a { Historical  }  }  }
Open when loaded:	<input type="checkbox"/>
Browse:	SeriesBrowse
Edit:	SeriesEdit
DisplayStyle:	Series

At the bottom of each node configuration are buttons: Insert, Delete, Duplicate, Add a Child, Add a Sibling, and Add saveNode script.

```
set title "[node @Range]: [node @Title]"
```

This code is executed in  
a safe Tcl interpreter.  
The `node` command  
is aliased to a **tdom**  
`node` object.

The final value of  
\$*title* will be the  
label in the Tree.

```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBRA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAL +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# GUI Configuration

The screenshot shows the 'itemset #2: Edit Tree' window with two tree nodes defined:

**Node 1: Section**

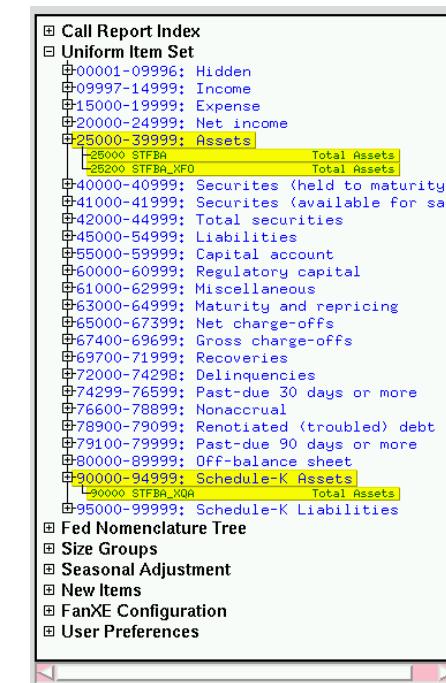
Name:	Section
Title:	set title "[node @Range]: [node @Title]"
Open when loaded:	<input checked="" type="checkbox"/>
Browse:	Section
Edit:	
DisplayStyle:	Section

**Node 2: Series**

Name:	Series
Title:	set title [Format %5s [node @N]] set fedname @ Foreach a { Historical  }  }  }
Open when loaded:	<input type="checkbox"/>
Browse:	SeriesBrowse
Edit:	SeriesEdit
DisplayStyle:	Series

At the bottom of each node configuration are buttons: Insert, Delete, Duplicate, Add a Child, Add a Sibling, and Add saveNode script.

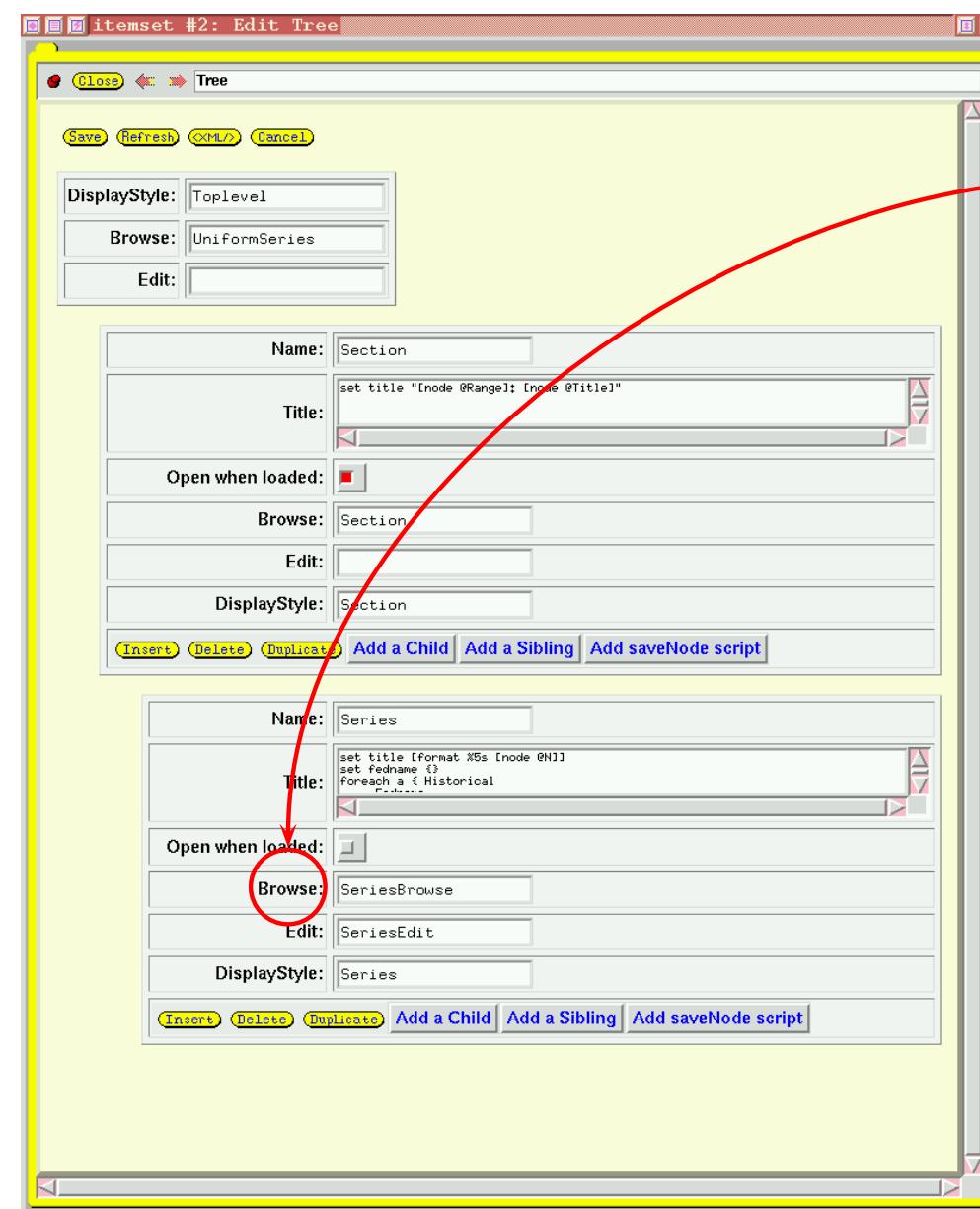
```
set title "[node @Range]: [node @Title]"
```



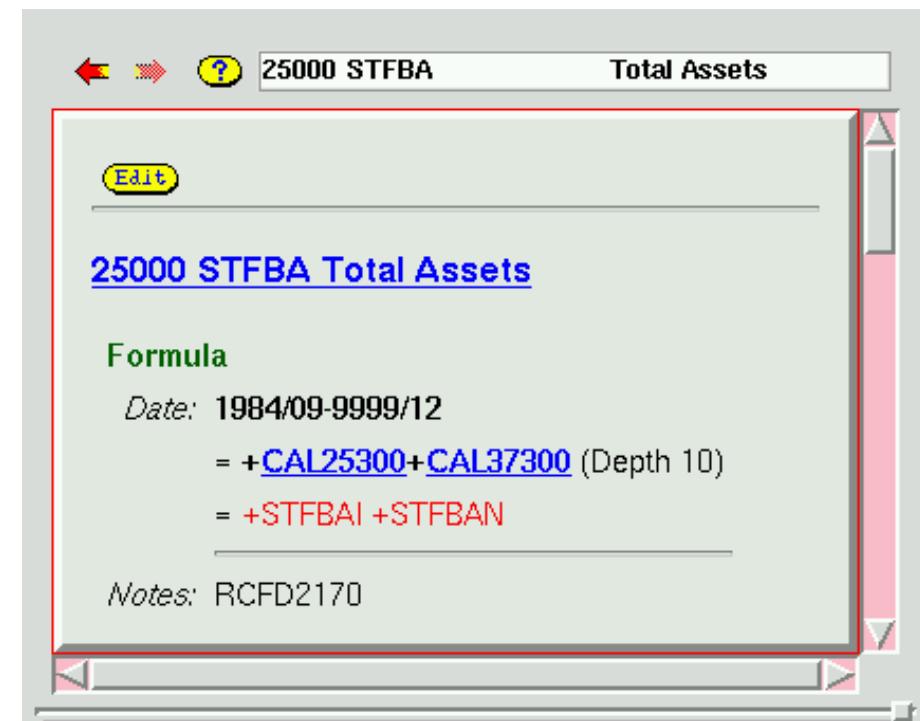
```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBRA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBRAI +STFBAN</Alias>
      </Formula>
    </Item>
    <Note>RCFD2170</Note>
  </Series>
```



# GUI Configuration

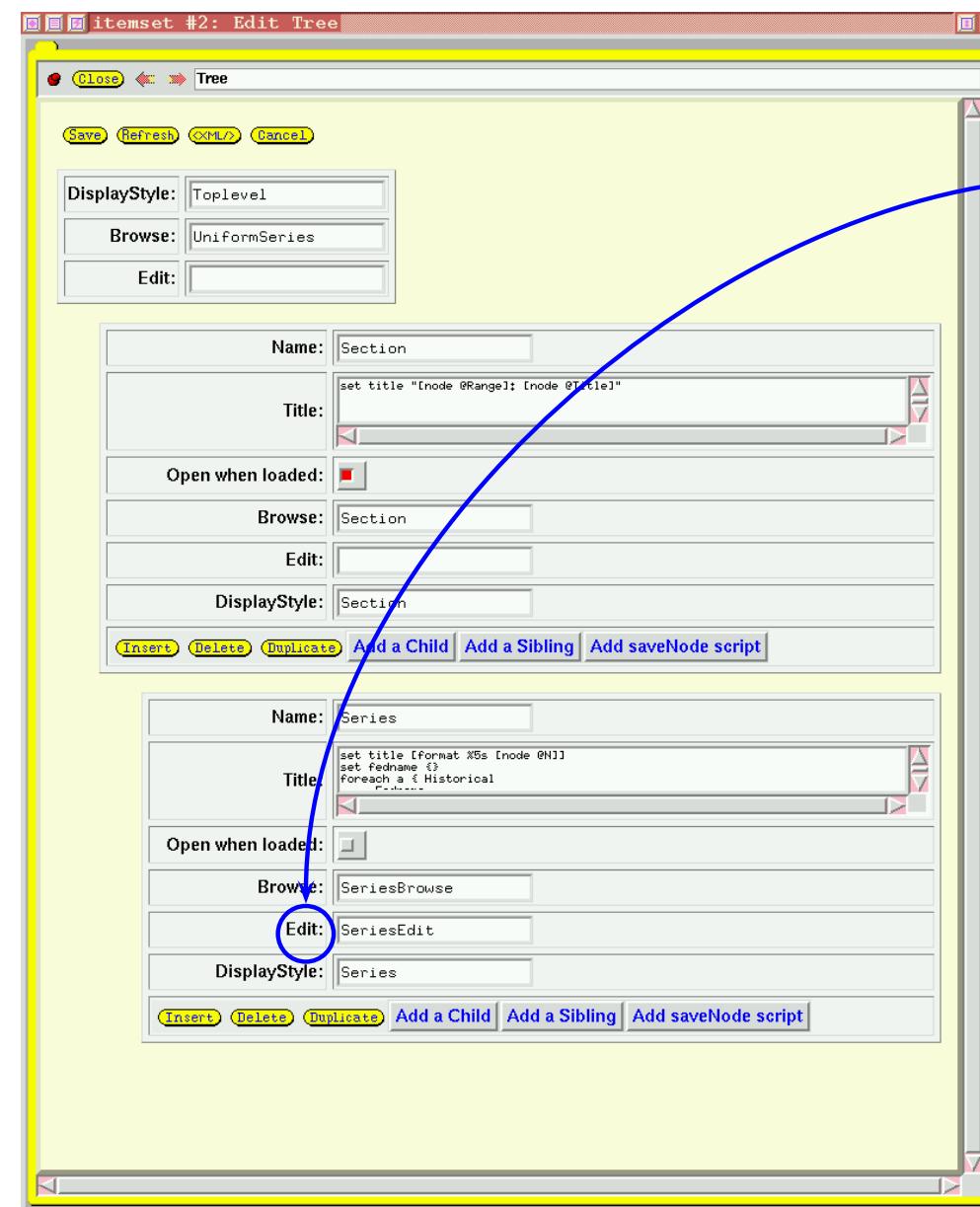


“Browse” contains the name of a style sheet that is applied when selecting a node in the Tree.

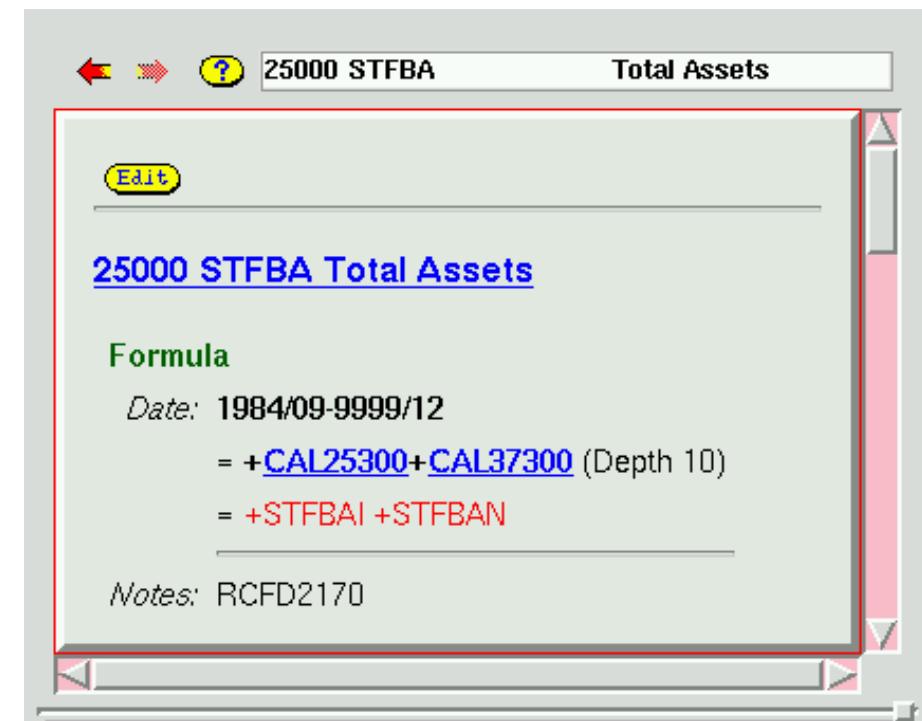




# GUI Configuration

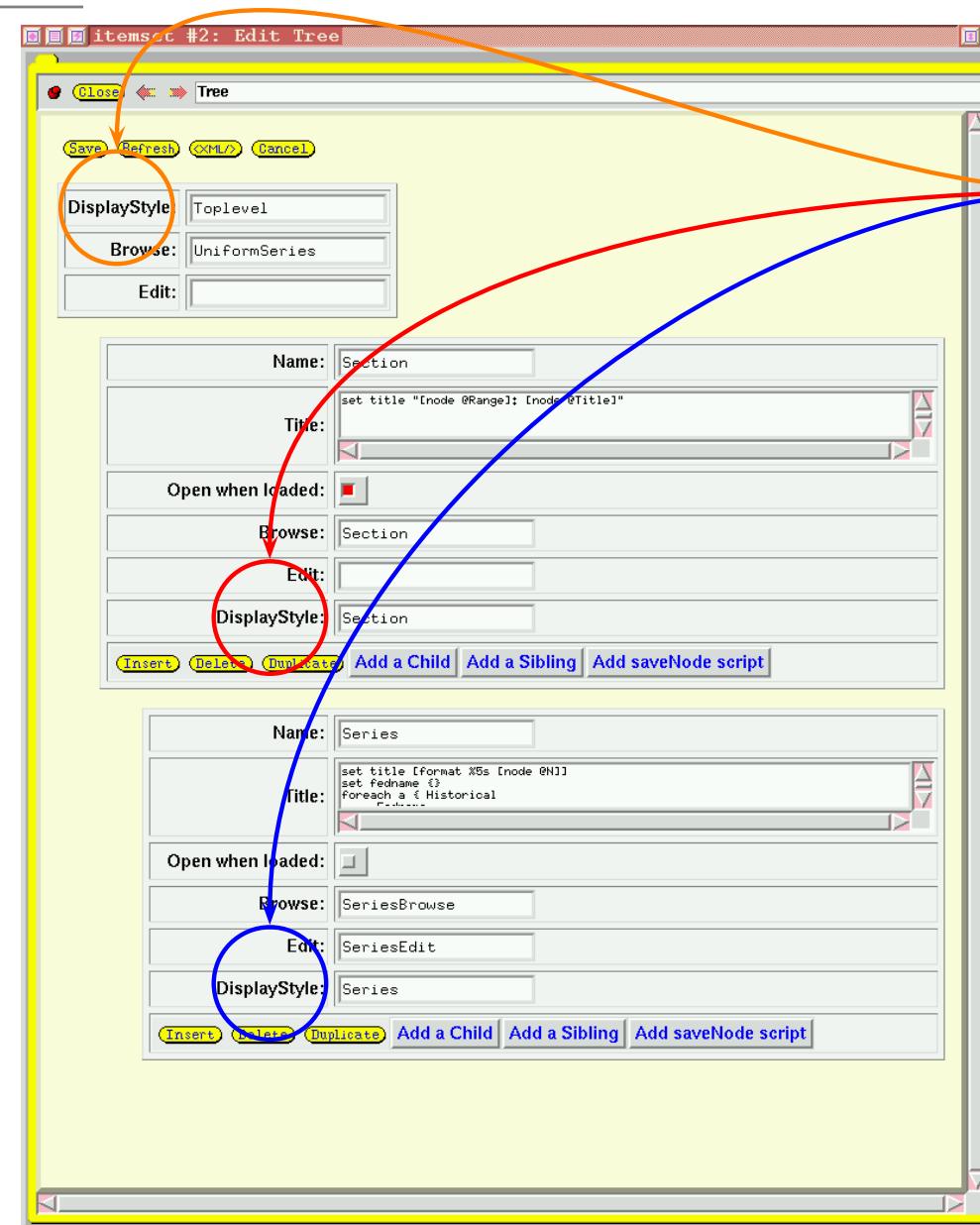


“Edit” contains the name of a style sheet that is applied when the **Edit** button is pressed.





# GUI Configuration



“DisplayStyle” contains the name of a **Tix** DisplayStyle object.



# GUI Configuration

itemset #2: Edit Tree

Tree

Save Refresh XML Cancel

DisplayStyle: Toplevel

Browse: UniformSeries

Edit:

Name: Section

Title: set title "[node @Range]; [node @Title]"

Open when loaded:

Browse: Section

Edit:

DisplayStyle: Section

Insert Delete Duplicate Add a Child Add a Sibling Add saveNode script

Name: Series

Title: set title [format X5s [node @N]]  
set fname {}  
foreach a { Historical  
... }

Open when loaded:

Browse: SeriesBrowse

Edit: SeriesEdit

DisplayStyle: Series

Insert Delete Duplicate Add a Child Add a Sibling Add saveNode script

itemset #2: Styles

Display Styles

Close Refresh XML Cancel

Style	Font	Foreground	Active Foreground	Select Foreground	
Toplevel	3 <input type="checkbox"/> fixed <input checked="" type="checkbox"/> bold <input type="checkbox"/> italic	black	black	black	
Section	3 <input checked="" type="checkbox"/> fixed <input type="checkbox"/> bold <input type="checkbox"/> italic	blue	blue	blue	
Series	2 <input checked="" type="checkbox"/> fixed <input type="checkbox"/> bold <input type="checkbox"/> italic	darkgreen	darkgreen	darkgreen	
domaine	3 <input checked="" type="checkbox"/> fixed <input type="checkbox"/> bold <input type="checkbox"/> italic	brown	brown	brown	
Add a Style					

DisplayStyles control all font properties in the Tree.



# Pane Layout

ItemSet V1.52 -- Production [10:24:43] OK

File Edit Options Exit

Search: Trim Search

Tree: Trim Search

-----  
63000-64999: Maturity and repricing  
65000-67399: Net charge-offs  
67400-69699: Gross charge-offs  
69700-71999: Recoveries  
72000-74298: Delinquencies  
74299-76599: Past-due 30 days or more  
76600-78899: Nonaccrual  
78900-79099: Renegotiated (troubled) debt  
79100-79999: Past-due 90 days or more  
80000-89999: Off-balance sheet  
90000-94999: Schedule-K Assets  
95000-99999: Schedule-K Liabilities

**Fed Nomenclature Tree**

**Size Groups**

**Seasonal Adjustment**

**New Items**

**FanXE Configuration**

- CallIndex -- Call Report Index
- UniformSeries -- Uniform Item Set
- FedTree -- Fed Nomenclature Tree
- SizeGroups -- Size Groups
- Seasonal -- Seasonal Adjustment
- FailSA -- Series with no Seasonality
- NewItems -- New Items
- Fednames -- Fed Nomenclature Key
- bankname -- Bank Names\*
- district -- Districts\*
- Fanxe -- FanXE Configuration
- myPreferences -- User Preferences

**Preferences**

- DisplayStyles
- Options

**User Preferences**

- DisplayStyles
- Options

Geometry: 1265x700+0+0

Tearoff geometry:

Pane Style:

P1 P2 P3 P1 P2 P3  
P1 P2 P3 P1 P2 P3  
P1 P2 P3 P1 P2 P3

P1: tree view edit  
P2: tree view edit  
P3: tree view edit

Pane sizes (%): 30 50

Flip: yes no

Log XML

```
<Options>
  <geometry>1265x700+0+0</geometry>
  <tearoffGeometry/>
  <panes type="2" flip="no" p1="tree" p2="view" p3="edit" fractions="30 50"/>
  <helpURL/>
  <baseFont/>
  <option class="fixedFont">fixed</option>
</Options>
```



# Pane Layout

ItemSet V1.52 -- Production

File Edit [10:24:43] OK Exit

Search: Trim Search

Tree: Trim Search

-----  
63000-64999: Maturity and repricing  
65000-67399: Net charge-offs  
67400-69699: Gross charge-offs  
69700-71999: Recoveries  
72000-74298: Delinquencies  
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76600-78899: Nonaccrual  
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- Options

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Geometry: 1265x700+0+0

Tearoff geometry:

Pane Style:

P1: tree view edit

P2: tree view edit

P3: tree view edit

Pane sizes (%): 30 50

Flip: yes no

Log XML

```
<Options>
<geometry>1265x700+0+0</geometry>
<tearoffGeometry/>
<panes type="2" flip="no" p1="tree" p2="view" p3="edit">
<helpURL/>
<baseFont/>
<option class="fixedFont">fixed</option>
</Options>
```

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3



# Pane Layout

ItemSet V1.52 -- Production

[10:24:43] OK

Search:  Trim

Tree:

-----  
63000-64999: Maturity and repricing  
65000-67399: Net charge-offs  
67400-69699: Gross charge-offs  
69700-71999: Recoveries  
72000-74298: Delinquencies  
74299-76599: Past-due 30 days or more  
76600-78899: Nonaccrual  
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- Fanxe -- FanXE Configuration
- myPreferences -- User Preferences

**Preferences**

- DisplayStyles
- Options

**User Preferences**

- DisplayStyles
- Options

Geometry: 1265x700+0+0

Tearoff geometry:

Pane Style:

P1: tree view edit

P2: tree view edit

P3: tree view edit

Panel sizes (%): 30 50

Flip: yes no

Log XML

```
<Options>
<geometry>1265x700+0+0</geometry>
<tearoffGeometry/>
<panes type="2" flip="no" p1="tree" p2="view" p3="edit" frac="30 50">
<helpURL/>
<baseFont/>
<option class="fixedFont">fixed</option>
</Options>
```

P1 P2 P3

P1 P2 P3

P1 P2 P3

P1 P2 P3



# Pane Layout

ItemSet V1.52 -- Production

File Edit [10:24:43] OK Exit

Search: Trim Search

Tree: Trim Search

-----  
63000-64999: Maturity and repricing  
65000-67399: Net charge-offs  
67400-69699: Gross charge-offs  
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95000-99999: Schedule-K Liabilities

**Fed Nomenclature Tree**

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- Options

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- Options

Geometry: 1265x700+0+0

Tearoff geometry:

Pane Style:

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3

Flip: yes no

P1: tree view edit

P2: tree view edit

P3: tree view edit

Pane sizes (%): 30 50

Log XML

```
<Options>
<geometry>1265x700+0+0</geometry>
<tearoffGeometry/>
<panes type="2" flip="no" p1="tree" p2="view" p3="edit" frac="0.3 0.5 0.2">
<helpURL/>
<baseFont/>
<option class="fixedFont">fixed</option>
</Options>
```

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3

Trim Search

Trim Search



# Pane Layout

ItemSet V1.52 -- Production

File Edit [10:24:43] OK Exit

Search: Trim Search

Tree: Trim Search

-----  
63000-64999: Maturity and repricing  
65000-67399: Net charge-offs  
67400-69699: Gross charge-offs  
69700-71999: Recoveries  
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**Preferences**

- DisplayStyles
- Options

**User Preferences**

- DisplayStyles
- Options

Geometry: 1265x700+0+0

Tearoff geometry:

Pane Style:

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3

Flip: yes no

P1: tree view edit

P2: tree view edit

P3: tree view edit

Pane sizes (%): 30 50

Log XML

```
<Options>
<geometry>1265x700+0+0</geometry>
<tearoffGeometry/>
<panes type="2" flip="no" p1="tree" p2="view" p3="edit" frac="30 50">
<helpURL/>
<baseFont/>
<option class="fixedFont">fixed</option>
</Options>
```

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3

P1 P2 P3 P1 P2 P3



# Special Links

← → ? 25000 STFBA Total Assets

[Edit](#)

**25000 STFBA Total Assets**

**Formula**

*Date:* 1984/09-9999/12

= +[CAL25300](#)+[CAL37300](#) (Depth 10)

= +STFBAL +STFBAN

---

*Notes:* RCFD2170

A screenshot of a software application window titled "25000 STFBA Total Assets". The window has a toolbar at the top with icons for back, forward, and help, along with an "Edit" button. Below the title bar is a section labeled "25000 STFBA Total Assets" in blue. Underneath this, there is a green "Formula" section containing the following text:

*Date:* 1984/09-9999/12

= +[CAL25300](#)+[CAL37300](#) (Depth 10)

= +STFBAL +STFBAN

---

*Notes:* RCFD2170

The entire formula section is enclosed in a red rectangular border. At the bottom of the window is a scroll bar.



# Special Links

<input type="image" name="edit" src="http://FanXE/Edit" value="Edit">

The screenshot shows a window from the FanXE XML Editor. At the top, there's a toolbar with icons for back, forward, and help, followed by the text "25000 STFBA" and "Total Assets". Below the toolbar, there's a red rectangular selection box around the entire content area. Inside this box, there's a yellow button labeled "Edit" which is circled in red. The main content area contains the following text:

**25000 STFBA Total Assets**

**Formula**

Date: 1984/09-9999/12

= +[CAL25300](#)+[CAL37300](#) (Depth 10)

= +STFBAL +STFBAN

Notes: RCFD2170



# Special Links

<input type="image" name="edit" src="http://FanXE/Edit" value="Edit">

25000 STFBA Total Assets

**Formula**

Date: 1984/09-9999/12

= +[CAL25300](#)+[CAL37300](#) (Depth 10)

= +STFBAI +STFBAN

Notes: RCFD2170

The **FanXE** hostname  
links to internal images.



# Special Links

<a href="**fanxe://UniformSeries//Series[@N='25300']**">

The screenshot shows a window titled "25000 STFBA" with a sub-tab "Total Assets". A red arrow points from the text above to the "Total Assets" tab. The window contains the following information:

**25000 STFBA Total Assets**

**Formula**

Date: 1984/09-9999/12

= +[CAL25300](#)+[CAL37300](#) (Depth 10)

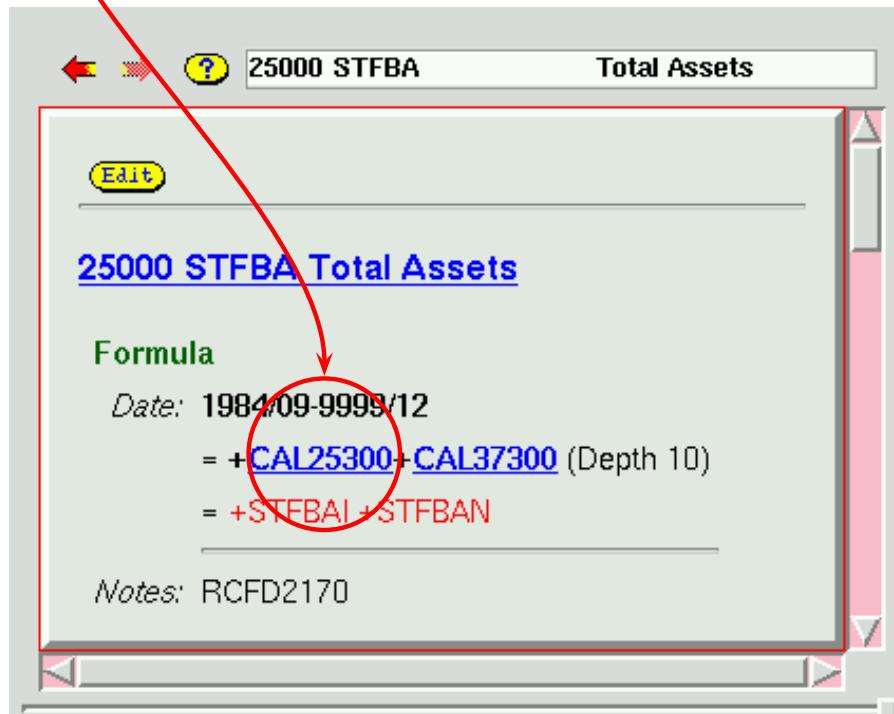
= +STFBAL+STFBAN

**Notes:** RCFD2170



# Special Links

<a href="**fanxe://UniformSeries//Series[@N='25300']**">

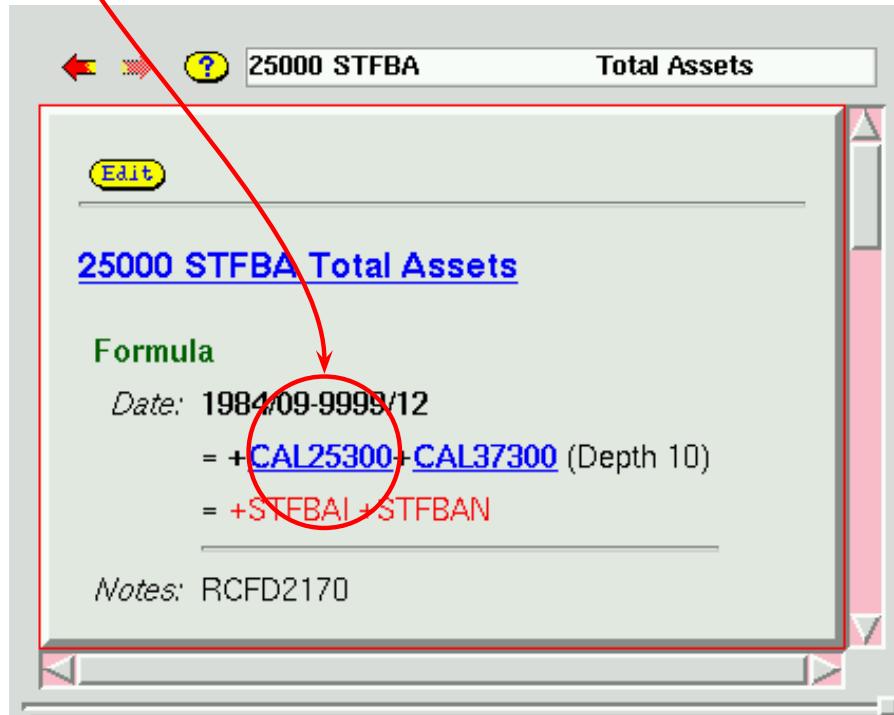


The **fanxe** URI scheme links to XPath expressions.



# Special Links

<a href="**fanxe://UniformSeries//Series[@N='25300']**">



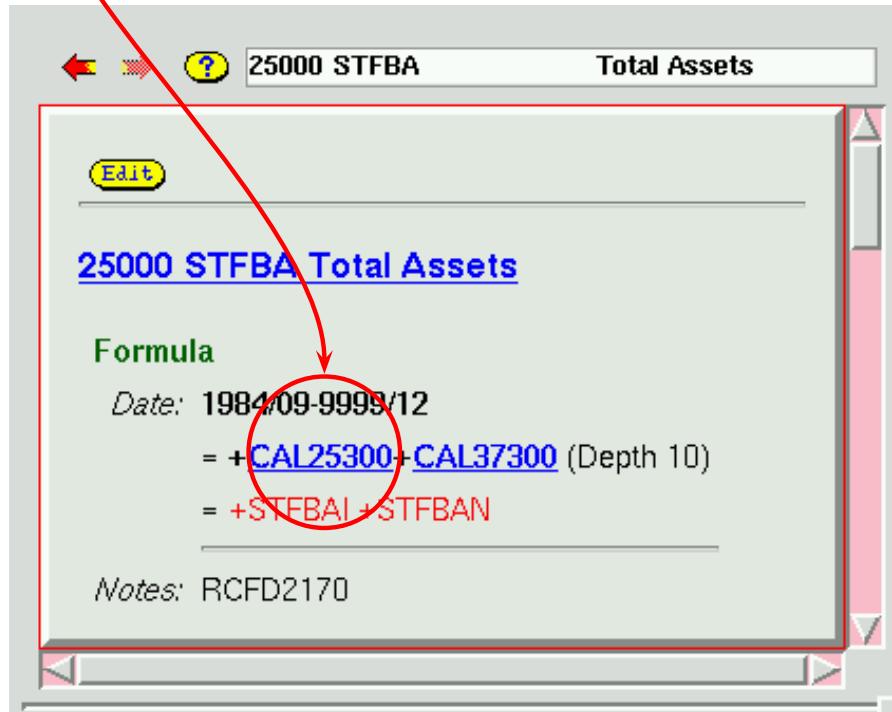
The **fanxe** URI scheme links to XPath expressions.

**UniformSeries** is the DOM name.



# Special Links

<a href="**fanxe://UniformSeries//Series[@N='25300']**">



The **fanxe** URI scheme links to XPath expressions.

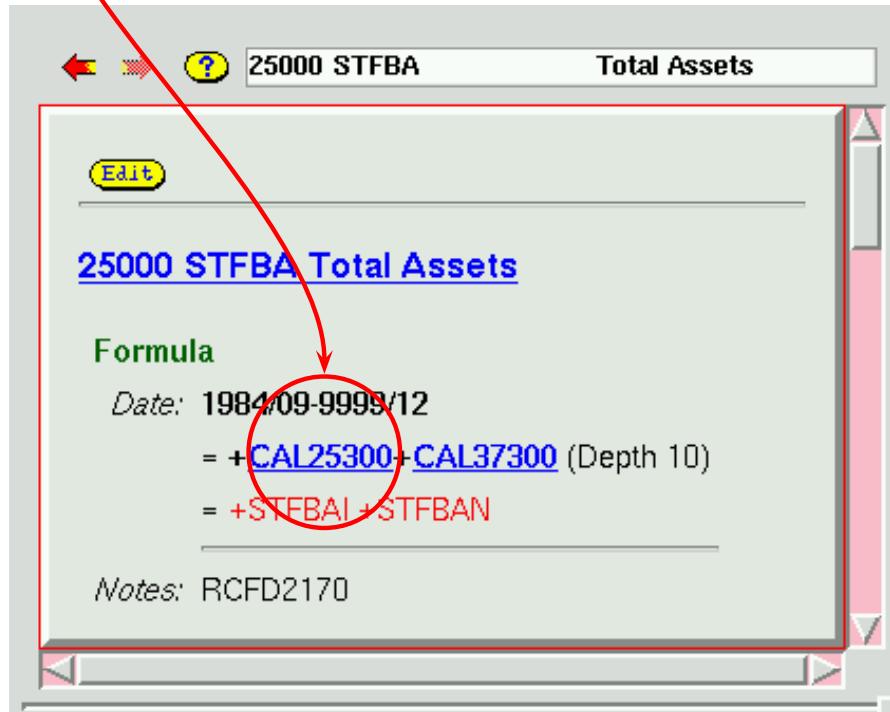
**UniformSeries** is the DOM name.

`//Series[@N='25300']` is the XPath expression.



# Special Links

<a href="**fanxe://UniformSeries//Series[@N='25300']**">



The **fanxe** URI scheme links to XPath expressions.

**UniformSeries** is the DOM name.

**//Series[@N='25300']** is the XPath expression.

*If multiple nodes match the XPath, the first one is opened and others are highlighted. Middle-clicking opens the first 10 matches in new tabs.*



# Special Links

SDMX Editor/Generator

• Open a [Structure file](#).      • Create a new [Structure file](#).  
• Open a [Config file](#).      • Create a new [Config file](#).  
• Open a [Key Family Schema](#).

• The sdmx [manual page](#).

Click the icon above to return to this screen.

Convert a Structure file to Schema(s)		
DOM	ID	Name
<a href="#">h15_struct</a>	H75	H.15 Selected Interest Rates
<a href="#">Common Structure File</a>		FRB Common Structure

Create a Data file from a Config file		
DOM	ID	Name
<a href="#">h15_config</a>	H75	H.15 Selected Interest Rates



# Special Links

<a href="http://FanXE/build?struct&h15\_struct.xml">

The screenshot shows the SDMX Editor/Generator interface. At the top, there's a navigation bar with back, forward, and help icons. Below it is the title "SDMX Editor/Generator" next to the Federal Reserve seal. There are four main options:

- Open a [Structure](#) file.
- Open a [Config](#) file.
- Open a [Key Family](#) Schema.
- Create a new [Structure](#) file.
- Create a new [Config](#) file.

A note below the options says: "Click the ? icon above to return to this screen."

Below these are two tables:

Convert a Structure file to Schema(s)		
DOM	ID	Name
<a href="#">h15_struct</a>	H75	H.15 Selected Interest Rates
<a href="#">Common Structure File</a>		FRB Common Structure

Create a Data file from a Config file		
DOM	ID	Name
<a href="#">h15_config</a>	H75	H.15 Selected Interest Rates



# Special Links

<a href="[http://FanXE/build?struct&h15\\_struct.xml"](http://FanXE/build?struct&h15_struct.xml)>

The FanXE hostname  
links to public methods.

SDMX Editor/Generator

• Open a [Structure](#) file. • Create a new [Structure](#) file.  
• Open a [Config](#) file. • Create a new [Config](#) file.  
• Open a [Key Family](#) Schema.

Click the icon above to return to this screen.

Convert a Structure file to Schema(s)		
DOM	ID	Name
<a href="#">h15_struct</a>	H75	H.15 Selected Interest Rates
<a href="#">Common Structure File</a>		FRB Common Structure

Create a Data file from a Config file		
DOM	ID	Name
<a href="#">h15_config</a>	H75	H.15 Selected Interest Rates



# Special Links

<a href="http://FanXE/build?struct&h15\_struct.xml">

build is the method name.

The screenshot shows the SDMX Editor/Generator interface. At the top, there is a navigation bar with icons for back, forward, and help, followed by a title "SDMX Editor/Generator". Below the title is the Federal Reserve logo. A red circle highlights the "h15\_struct" link in the first table.

**SDMX Editor/Generator**

Click the icon above to return to this screen.

**Convert a Structure file to Schema(s)**

DOM	ID	Name
<a href="#">h15_struct</a>	H75	H.15 Selected Interest Rates
<a href="#">Common Structure File</a>		FRB Common Structure

**Create a Data file from a Config file**

DOM	ID	Name
<a href="#">h15_config</a>	H75	H.15 Selected Interest Rates



# Special Links

<a href="http://FanXE/build?struct&h15\_struct.xml">

struct and h15\_struct.xml are the arguments to the method.

The screenshot shows the SDMX Editor/Generator application window. At the top, there's a toolbar with icons for back, forward, and help, followed by a title bar with the application name. Below the title bar is a navigation menu with the Federal Reserve System seal. The main content area has two tabs: "Convert a Structure file to Schema(s)" and "Create a Data file from a Config file". The left tab displays a table with columns: DOM, ID, and Name. It contains two rows: one for "h15\_struct" (ID H75, Name H.15 Selected Interest Rates) and another for "Common Structure File" (ID H75, Name FRB Common Structure). A red circle highlights the "h15\_struct" row. The right tab displays a similar table with one row: "h15\_config" (ID H75, Name H.15 Selected Interest Rates). A red box surrounds the entire interface. A red arrow points from the text "struct and h15\_struct.xml are the arguments to the method." to the "h15\_struct" entry in the table. Another red arrow points from the URL in the first slide to the "h15\_struct" entry.

Convert a Structure file to Schema(s)		
DOM	ID	Name
<a href="#">h15_struct</a>	H75	H.15 Selected Interest Rates
<a href="#">Common Structure File</a>		FRB Common Structure

Create a Data file from a Config file		
DOM	ID	Name
<a href="#">h15_config</a>	H75	H.15 Selected Interest Rates



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- Shell script to instantiate object and execute a method.



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  - Default method, if X is available, is GUI.



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- Runs an XSLT transformation.



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  - Subclasses can add their own XSLT functions.



# Application Examples

## **ItemSet:** Report Form Meta Data

- Driving factor in motivation and design.



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# Application Examples

## **BCBreaks:** Storing XML in PostgreSQL

- XML data edited by multiple users.



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# Application Examples

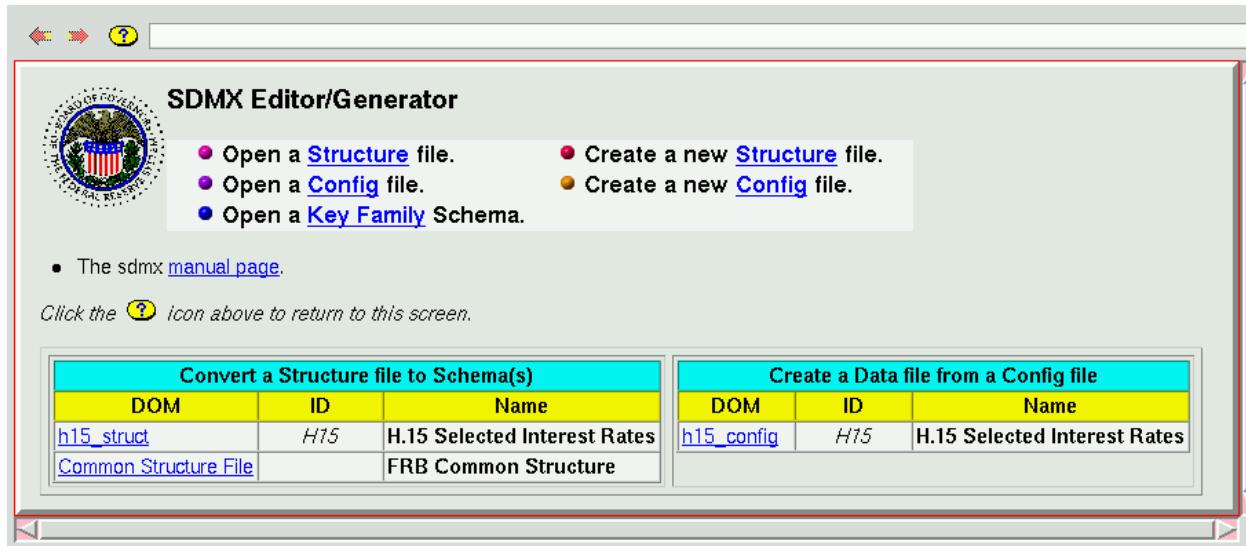
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- GUI listens for tableUpdated and changes are applied immediately.



# Application Examples

## SDMX: Time Series XML Data

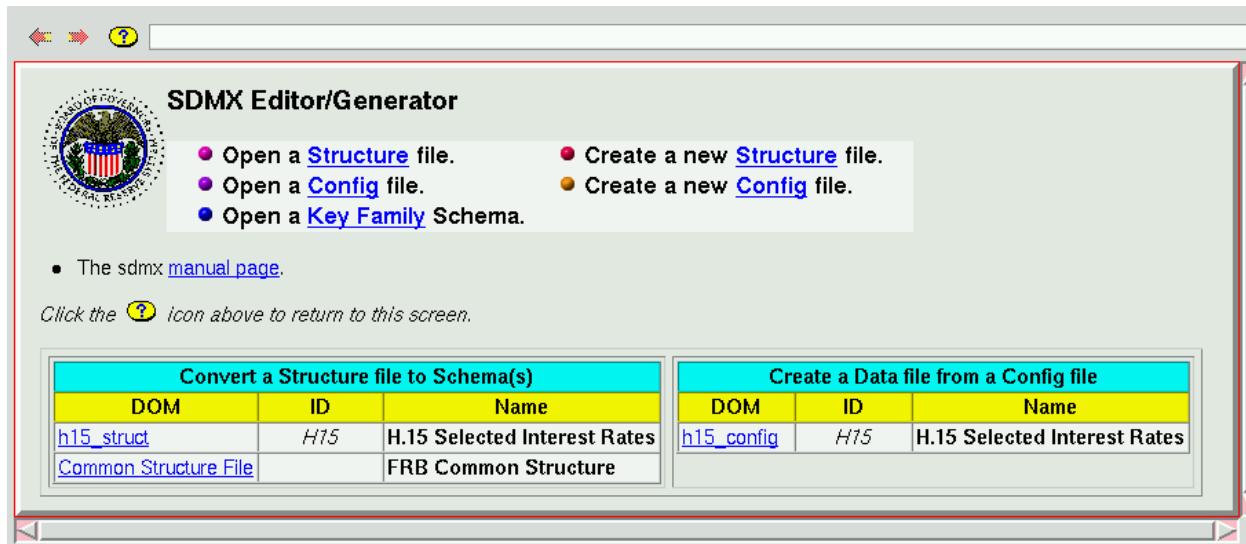


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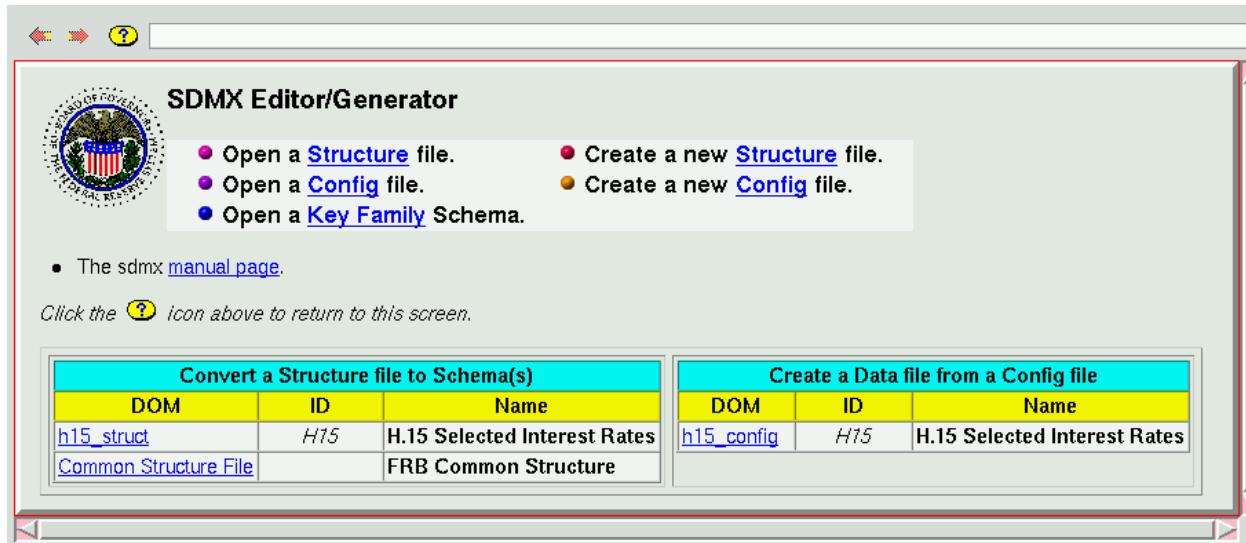


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# Application Examples

## SDMX: Time Series XML Data



- Application front-end.
- Users open their own XML documents, not just what was defined in the configuration file.
- Files can be opened by cloning the structure of other XML documents defined in the configuration file.



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- Initially supported both.



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- Already using [**incr Tcl**] and the **iwidgets** panedwindow.



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# Availability

- <http://wklink.freeshell.org/>
- Not always up-to-date. Ask!
- Created as part of my work for the Federal Government.

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- D. Richard Hipp for **Tkhtml**.
- George Howlett for **BLT**.
- Ioi Lam for **Tix** (and others who have kept it working)
- Conference organizers.
- The entire community for providing answers whenever I've had questions.