FanXE

Fantastic XML Editor

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Banking Analysis Section

Division of Monetary Affairs

Board of Governors of the Federal Reserve System

20th Street & Constitution Ave NW, Washington DC, 20551

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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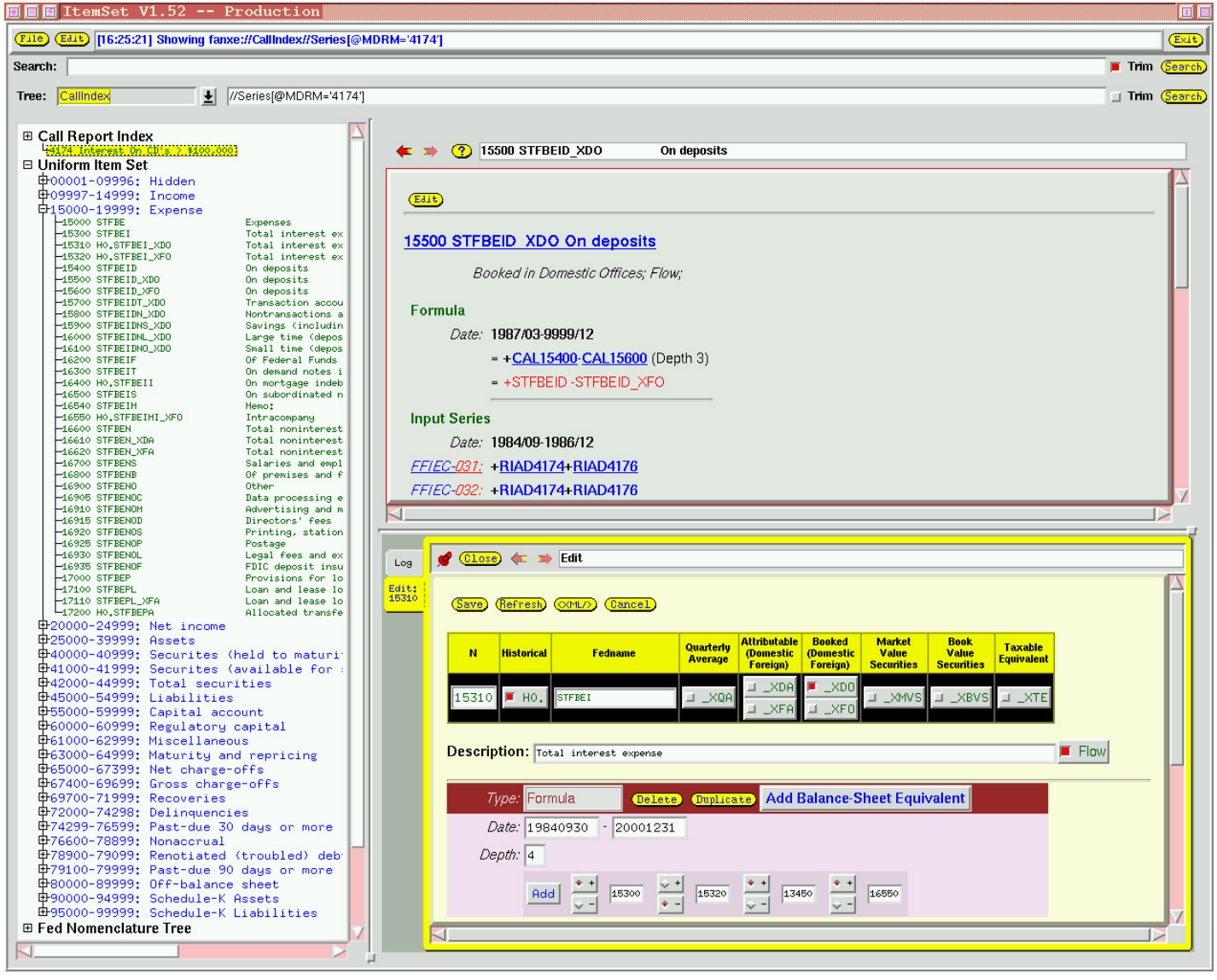
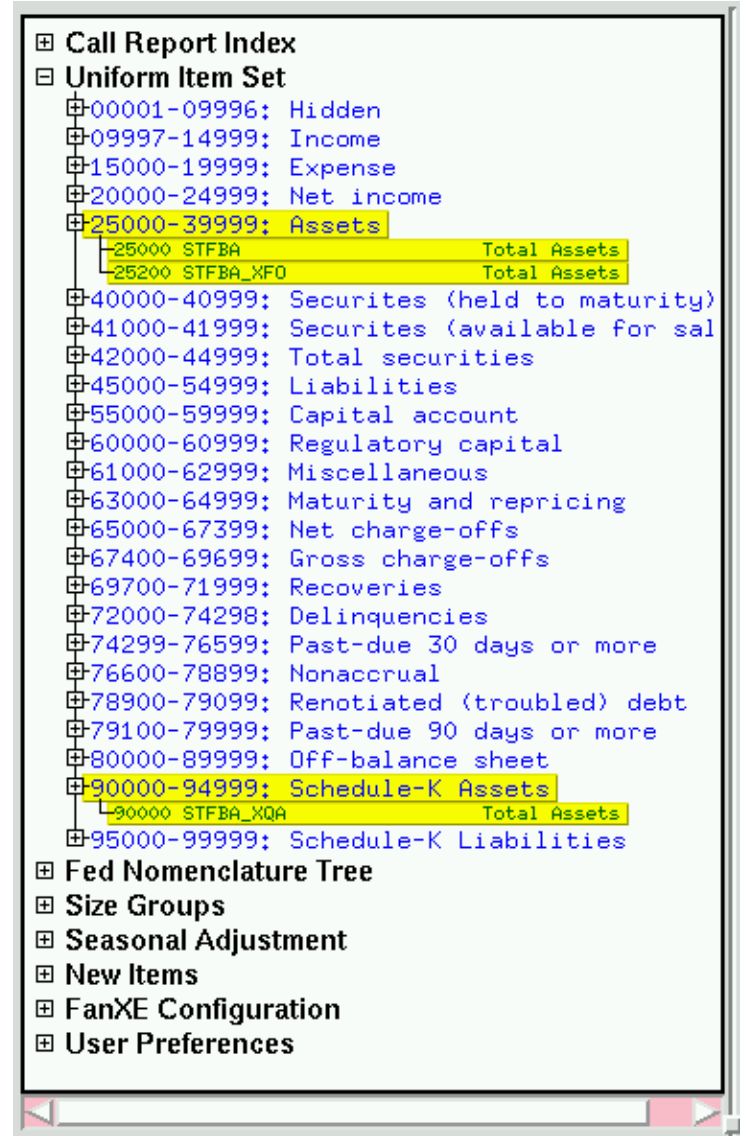
  - **Tkhtml** versus **ihtml**
  - **Tix** versus **BLT**

GUI Overview

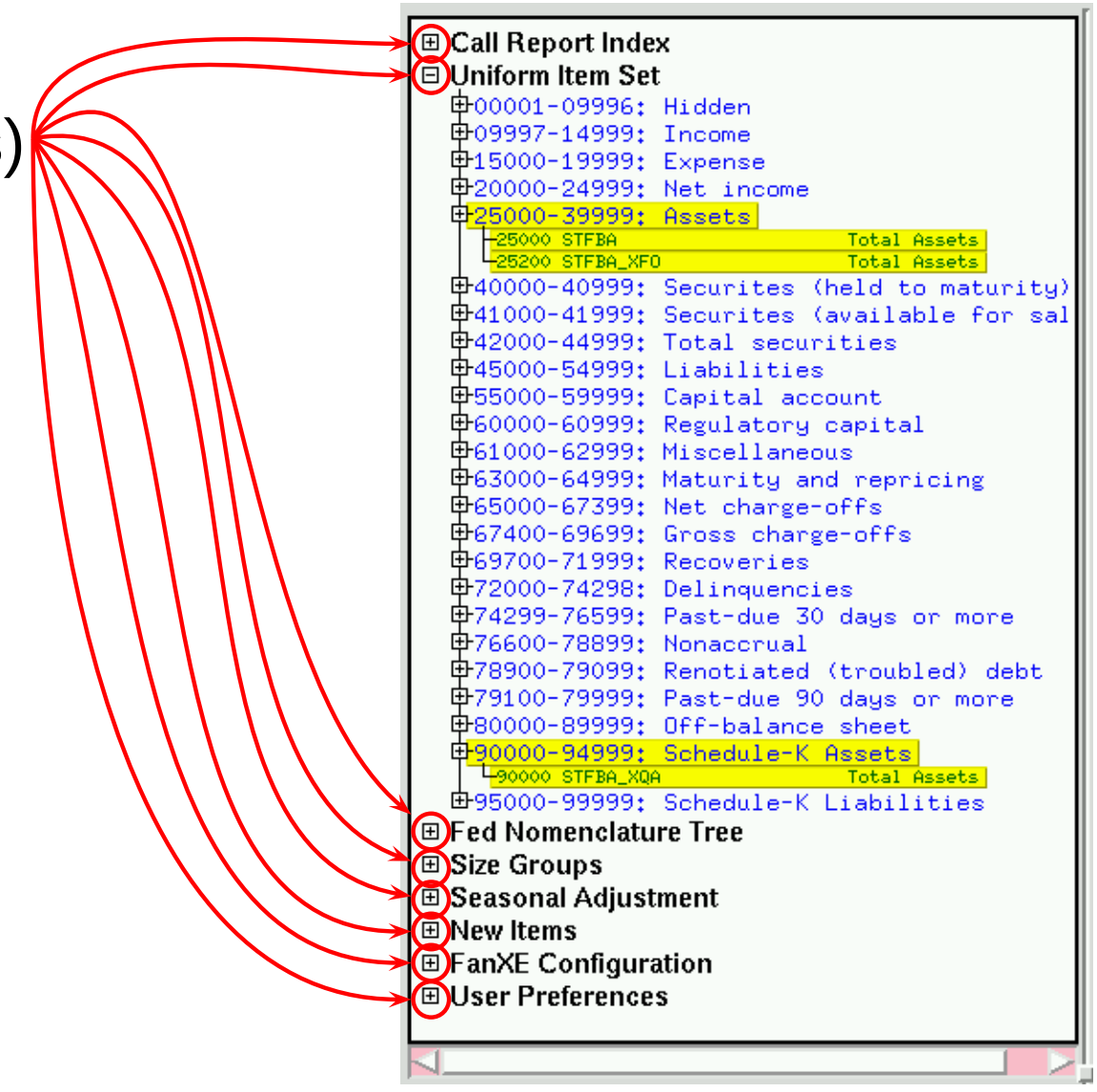


Tree Pane


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: 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: Renotiated (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

XML Documents (DOMs)



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    <Note>RCFD2170</Note>
  </Series>
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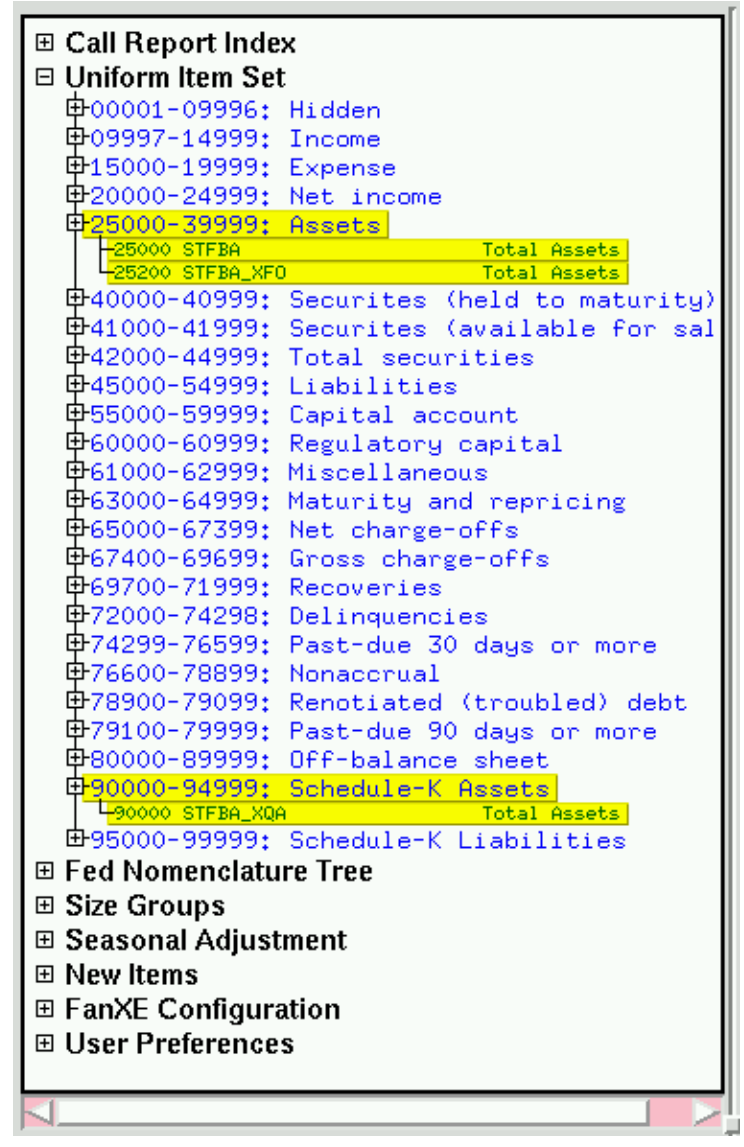

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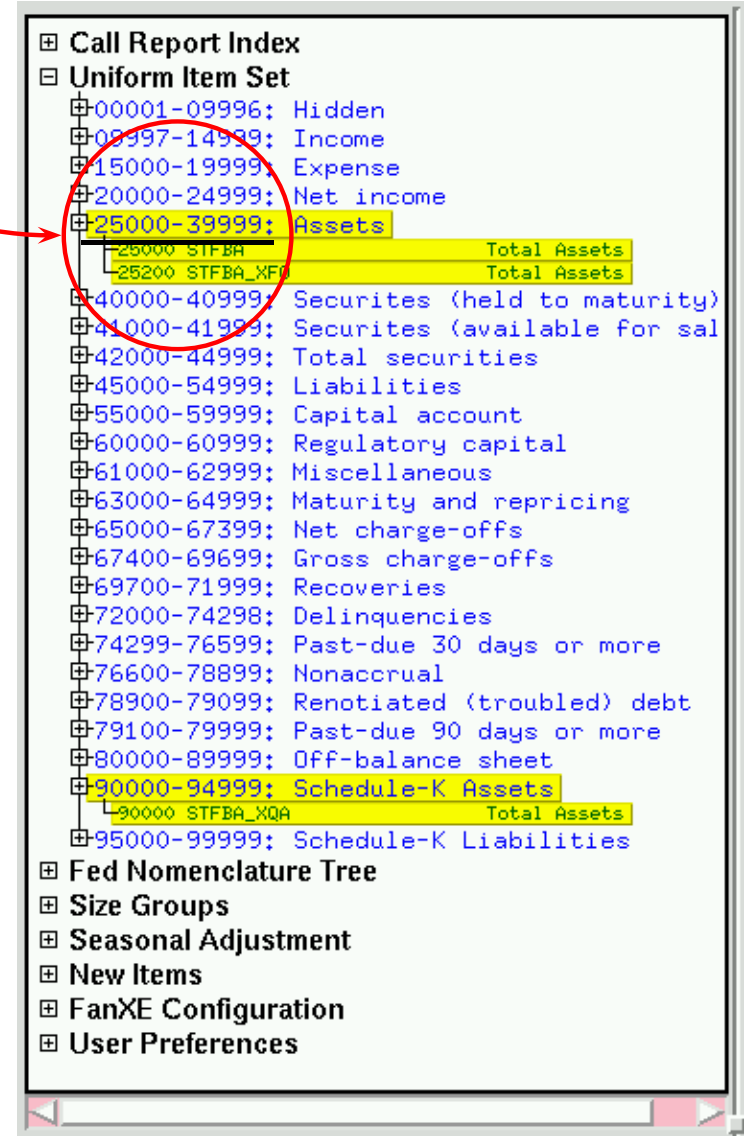

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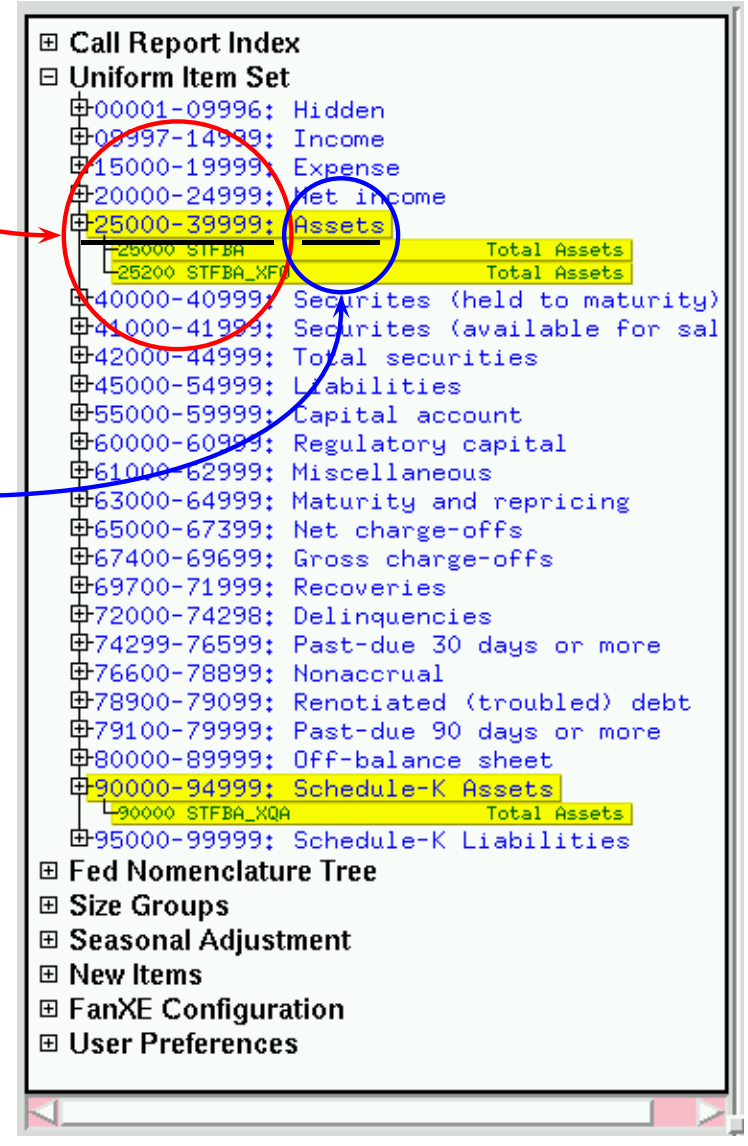

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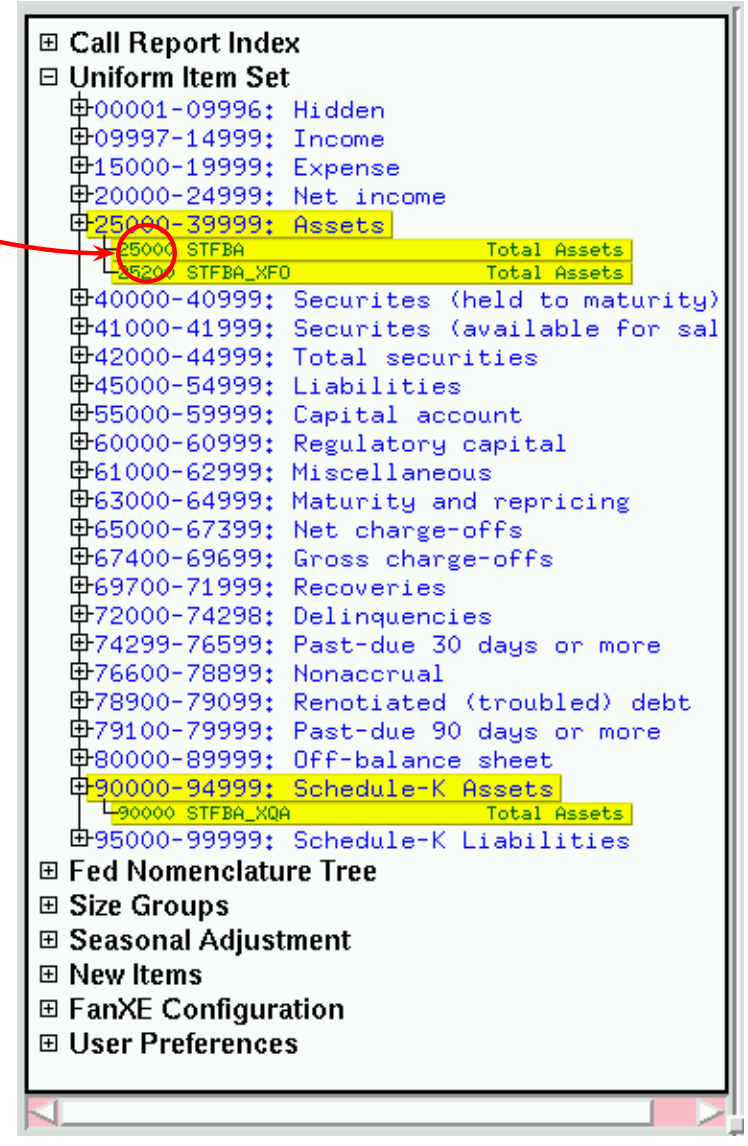

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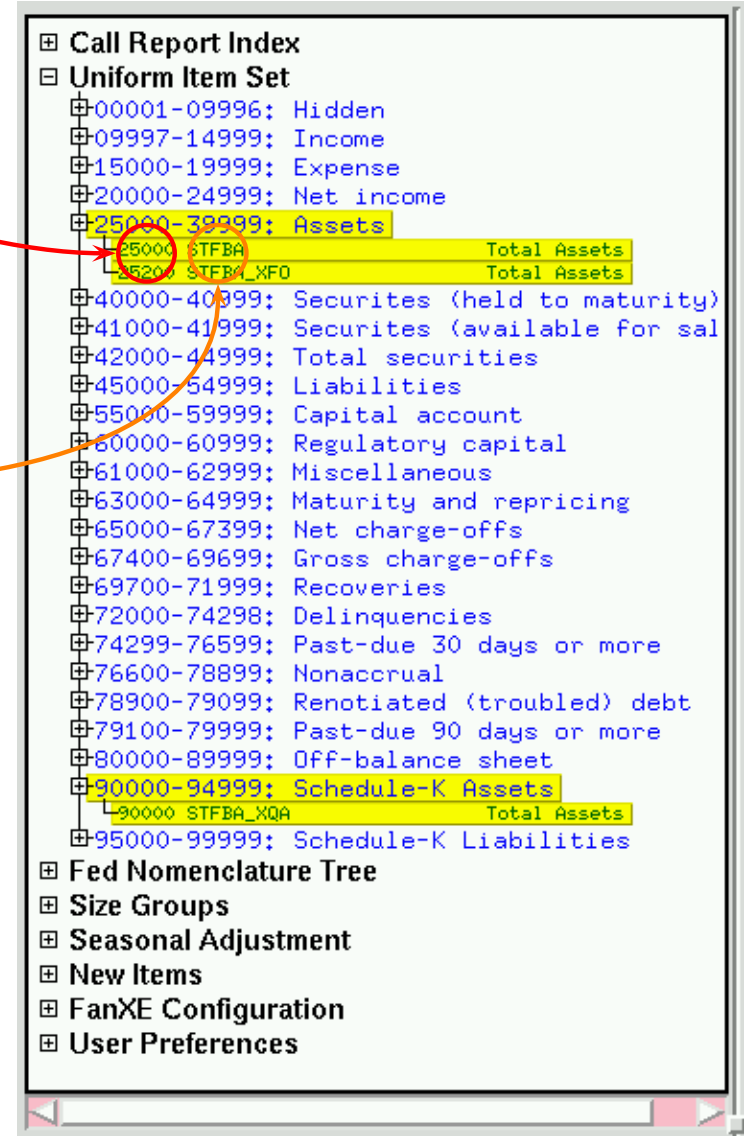

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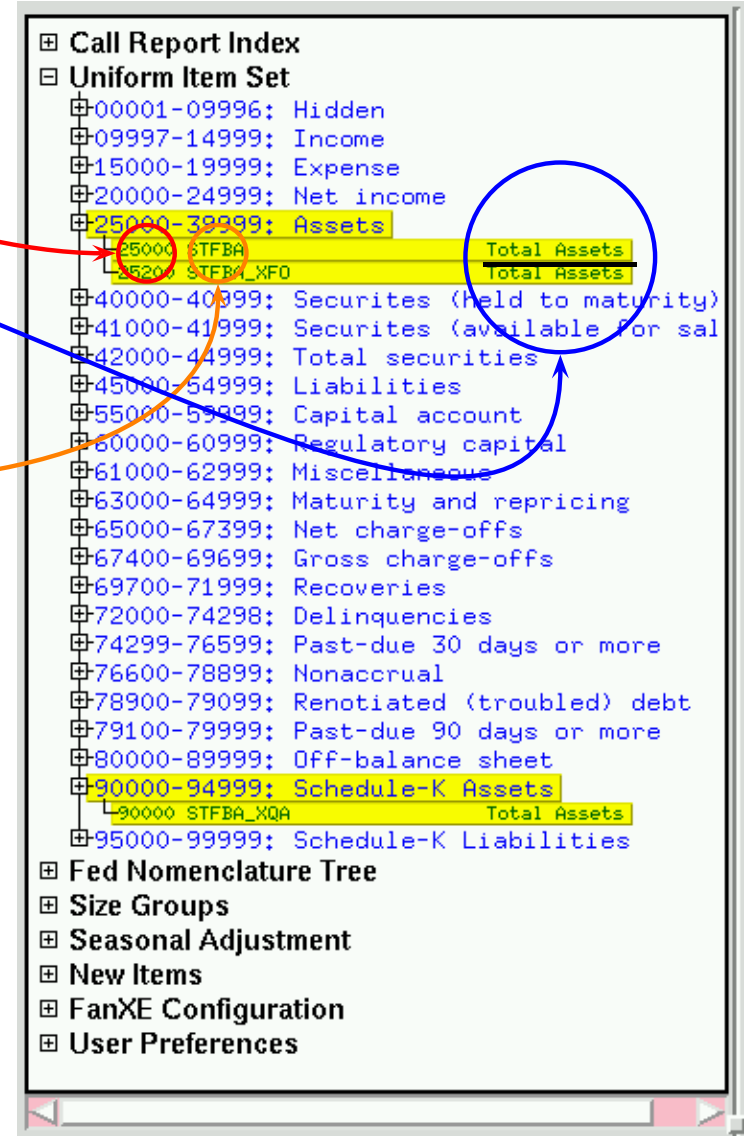
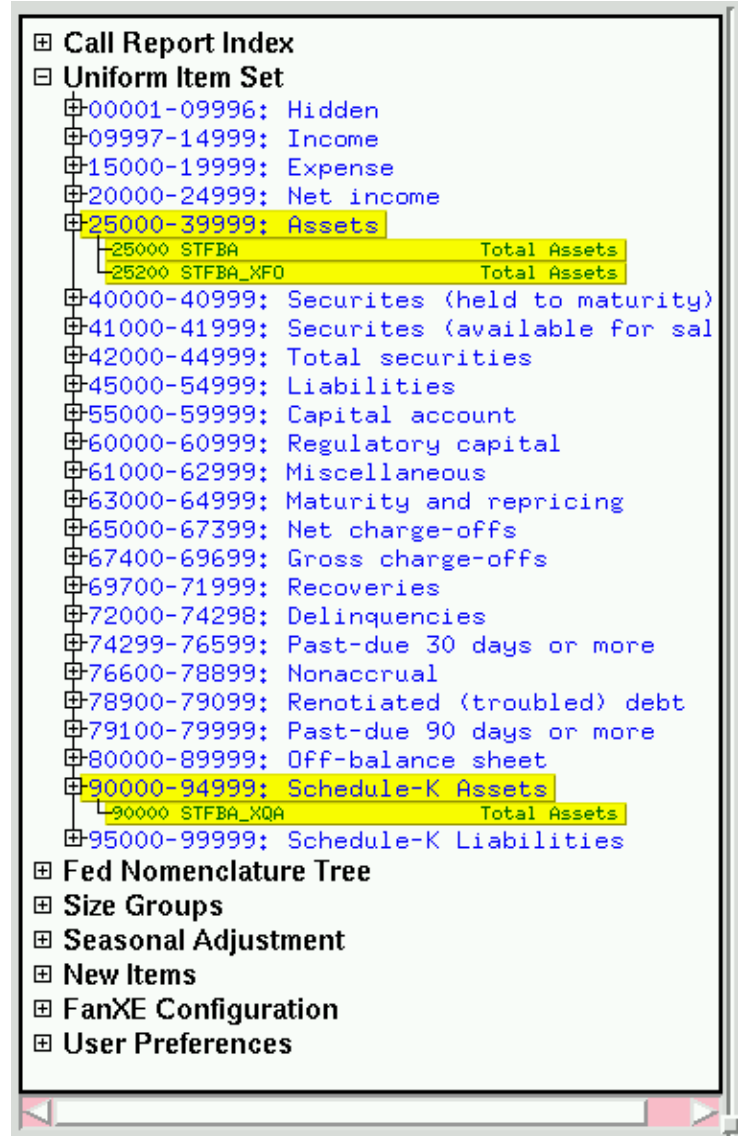
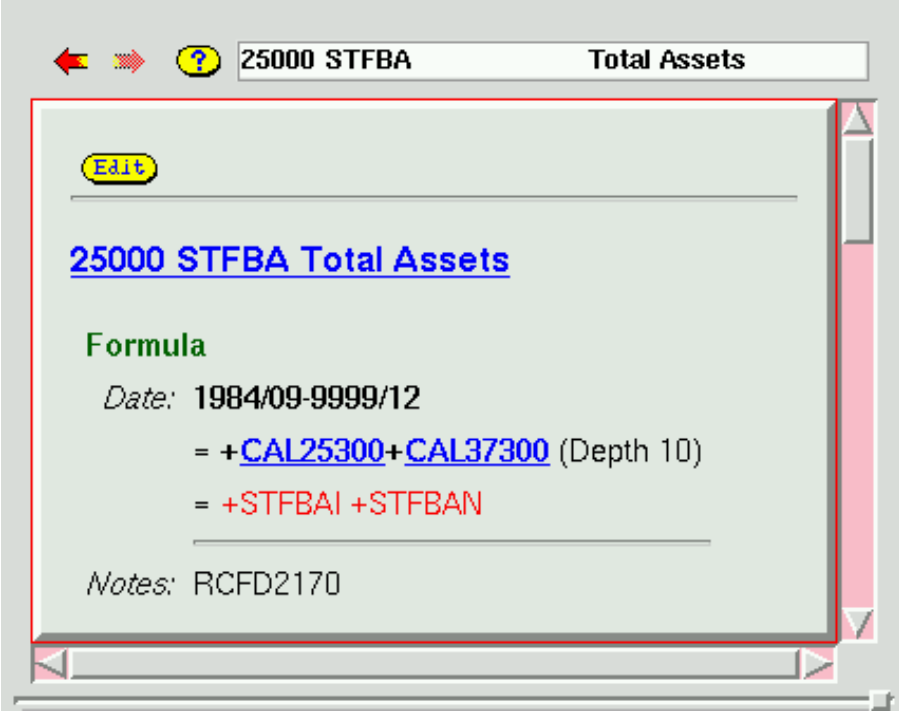


Tree Pane

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



View Pane

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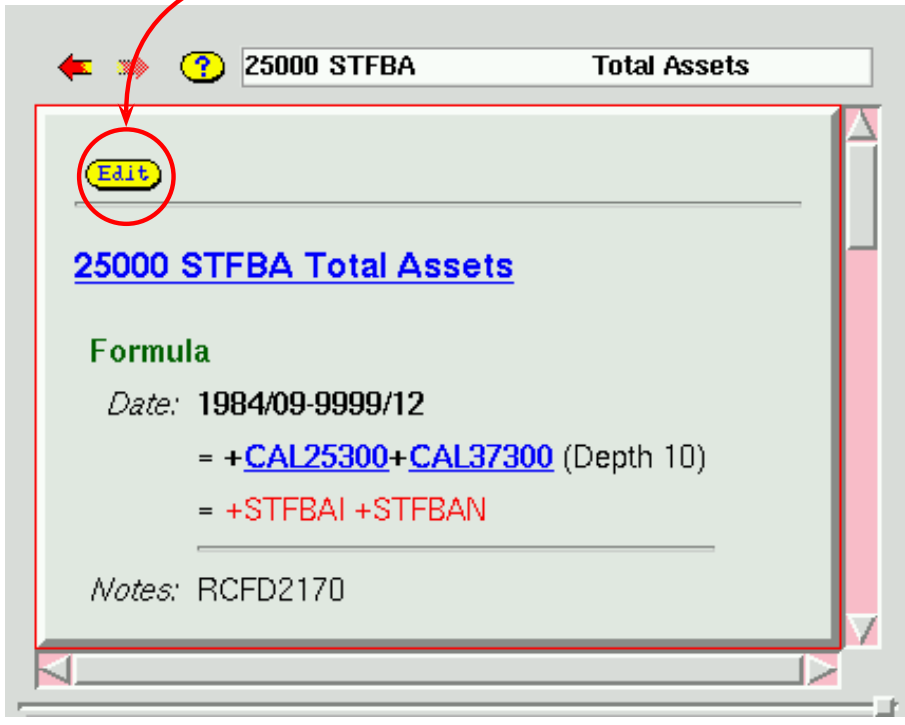
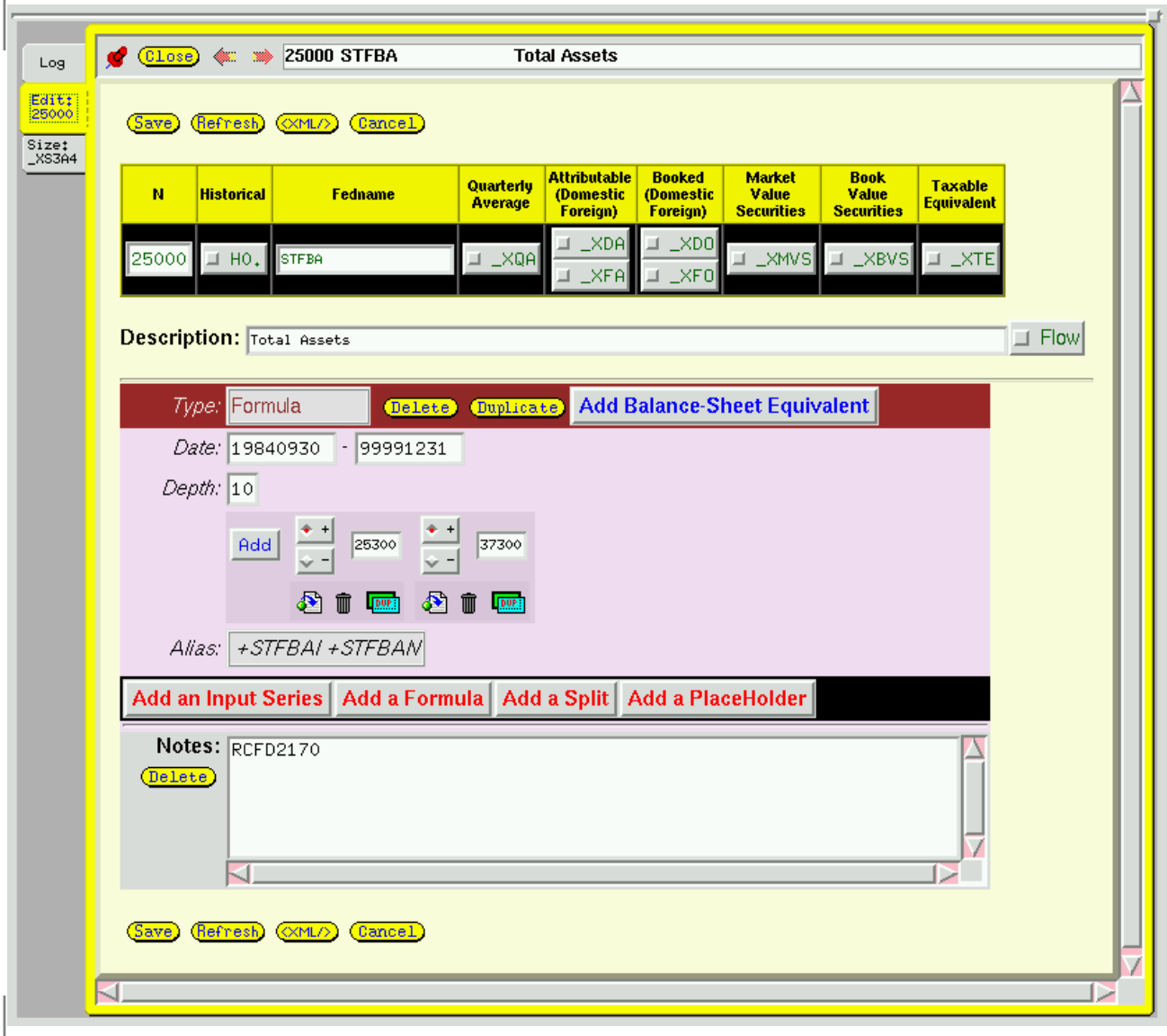
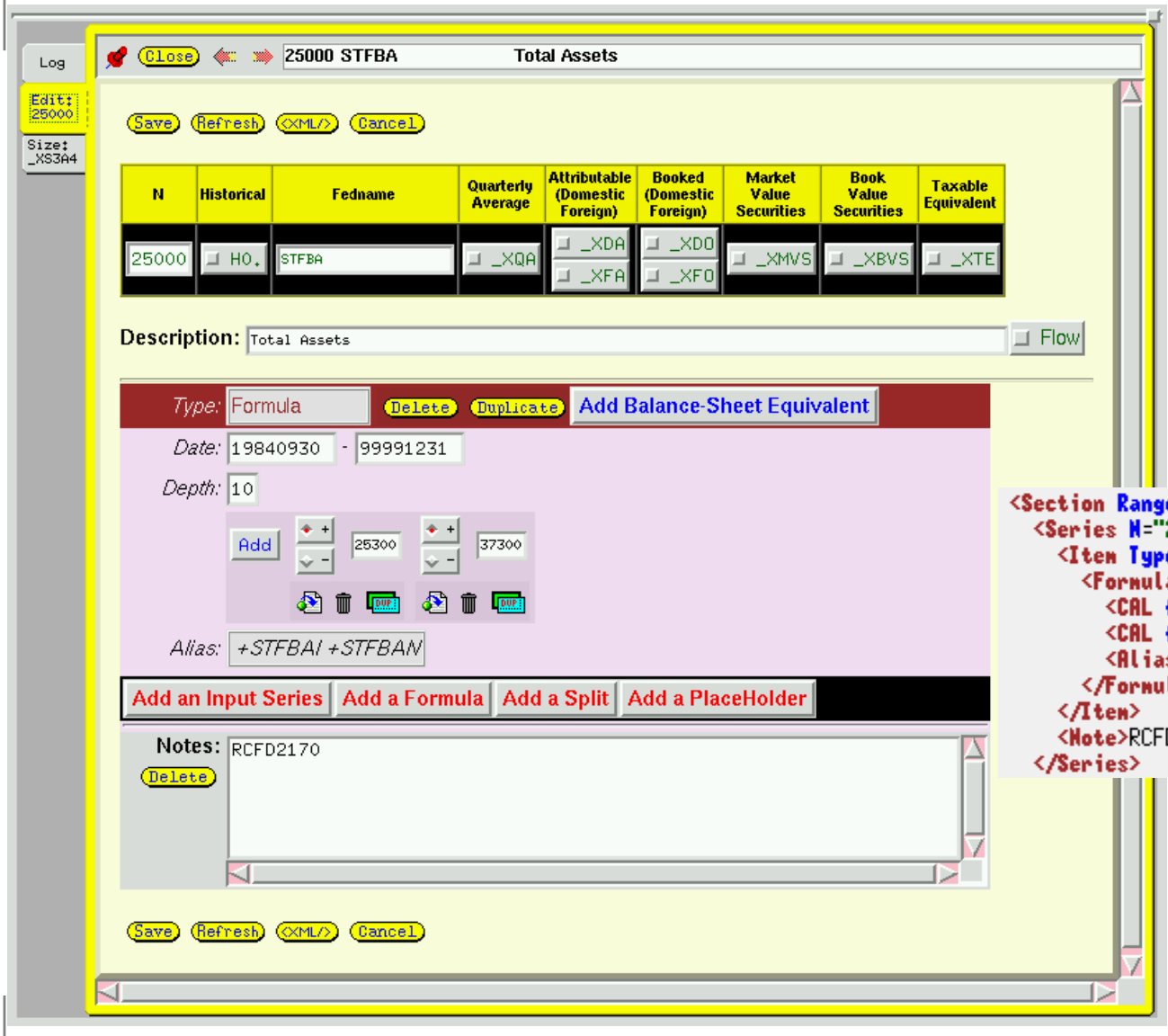


Selecting the Edit button will apply another style sheet and open the results in the Tab Paned.

Tab Pane


Log
Edit: 25000
Size: _XS3A4
Close
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
Delete
Duplicate
Add Balance-Sheet Equivalent
Date:
19840930
99991231
Depth:
10
Add
25300
37300
Alias:
+STFBAI +STFBAN
Add an Input Series
Add a Formula
Add a Split
Add a PlaceHolder
Notes:
Delete
RCFD2170
Save
Refresh
<XML/>
Cancel

Tab Pane

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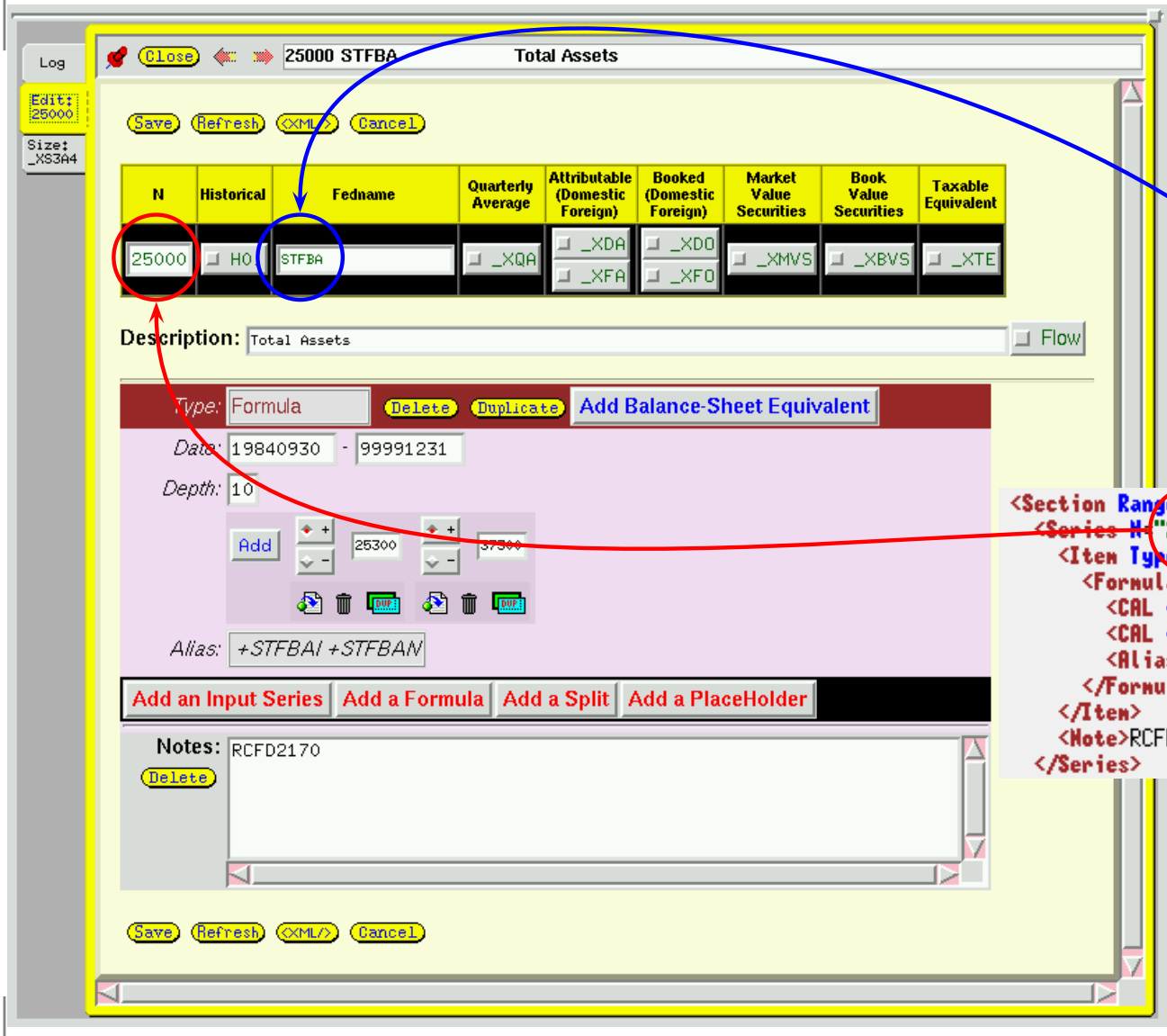


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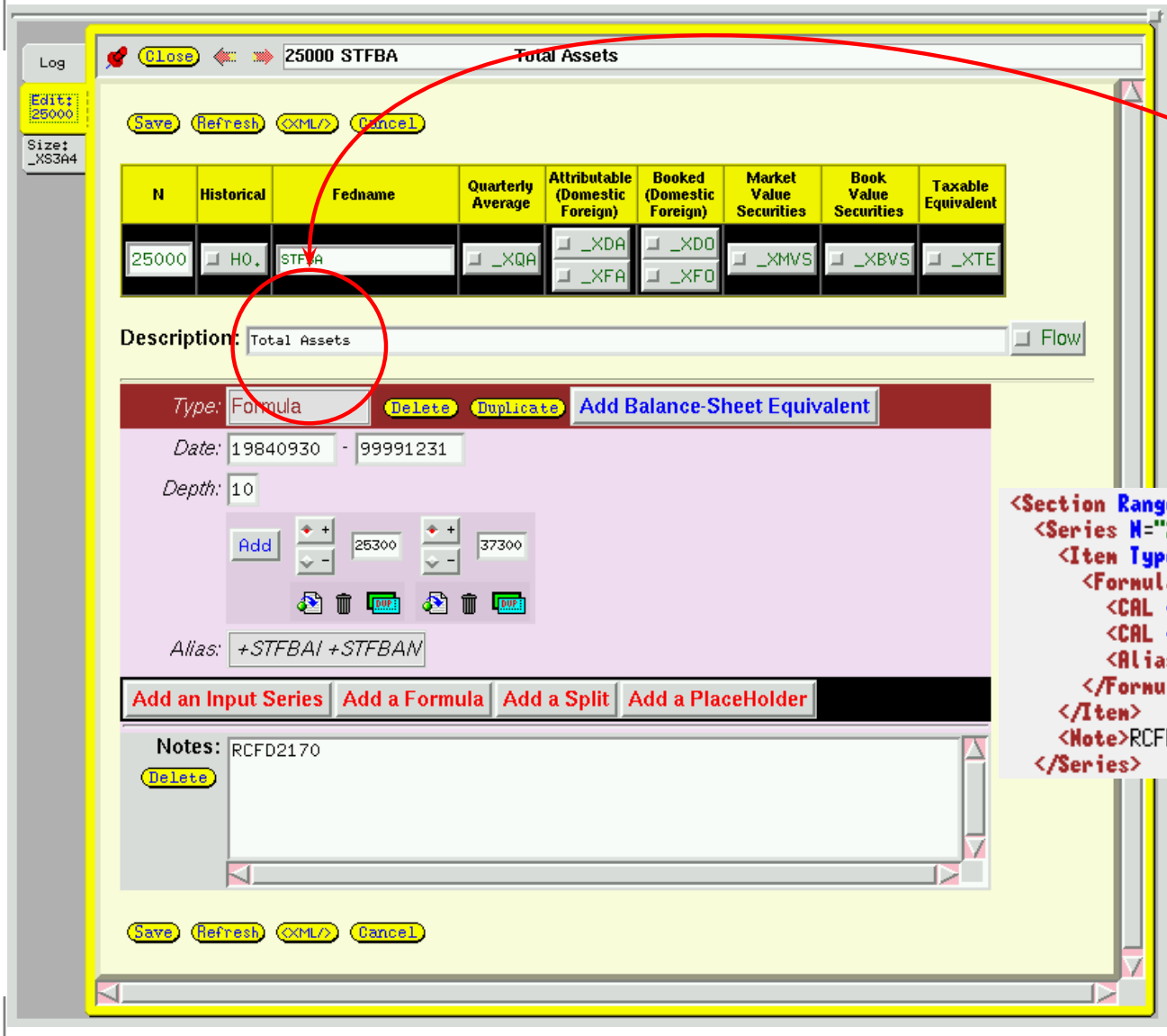


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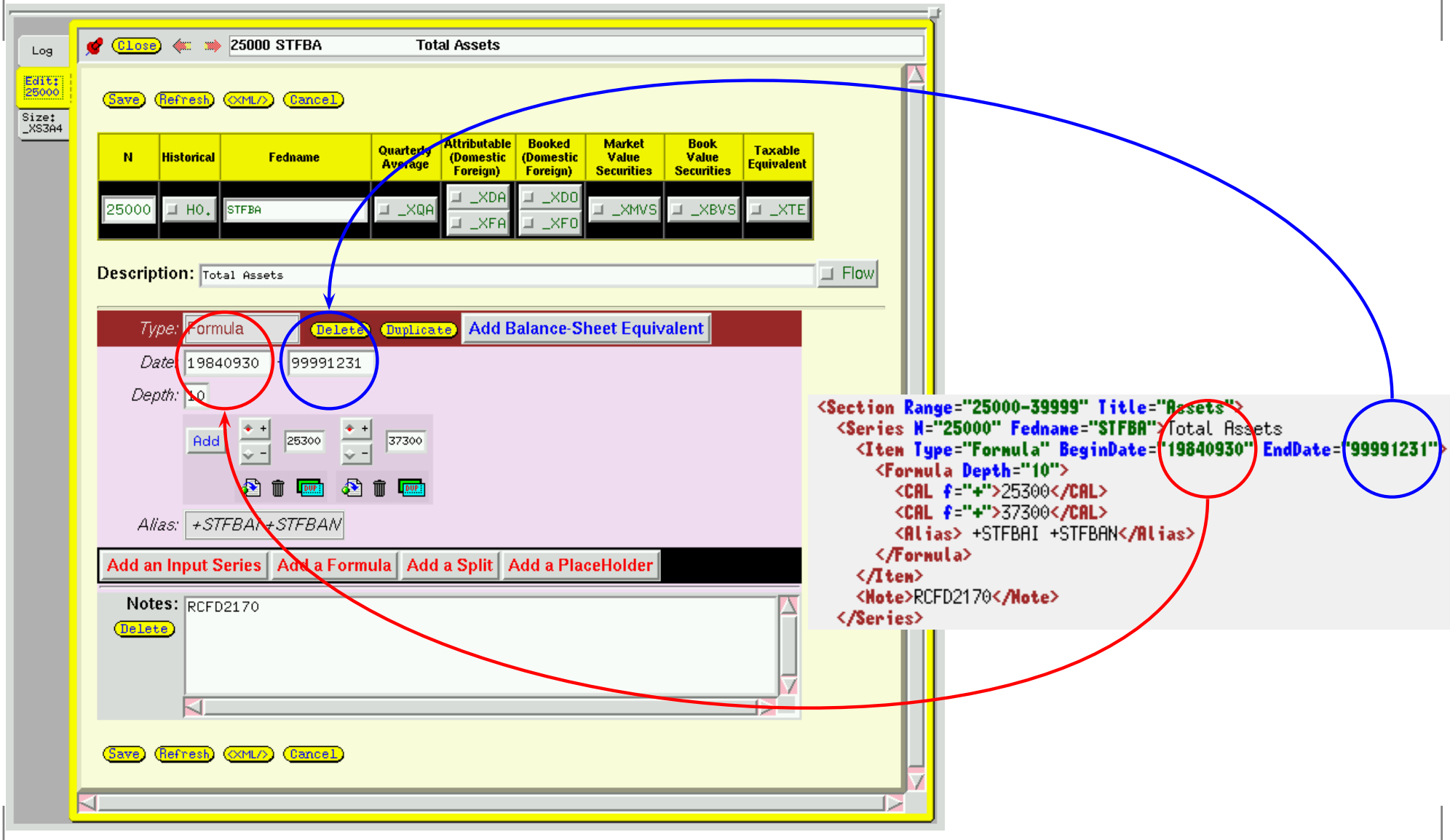
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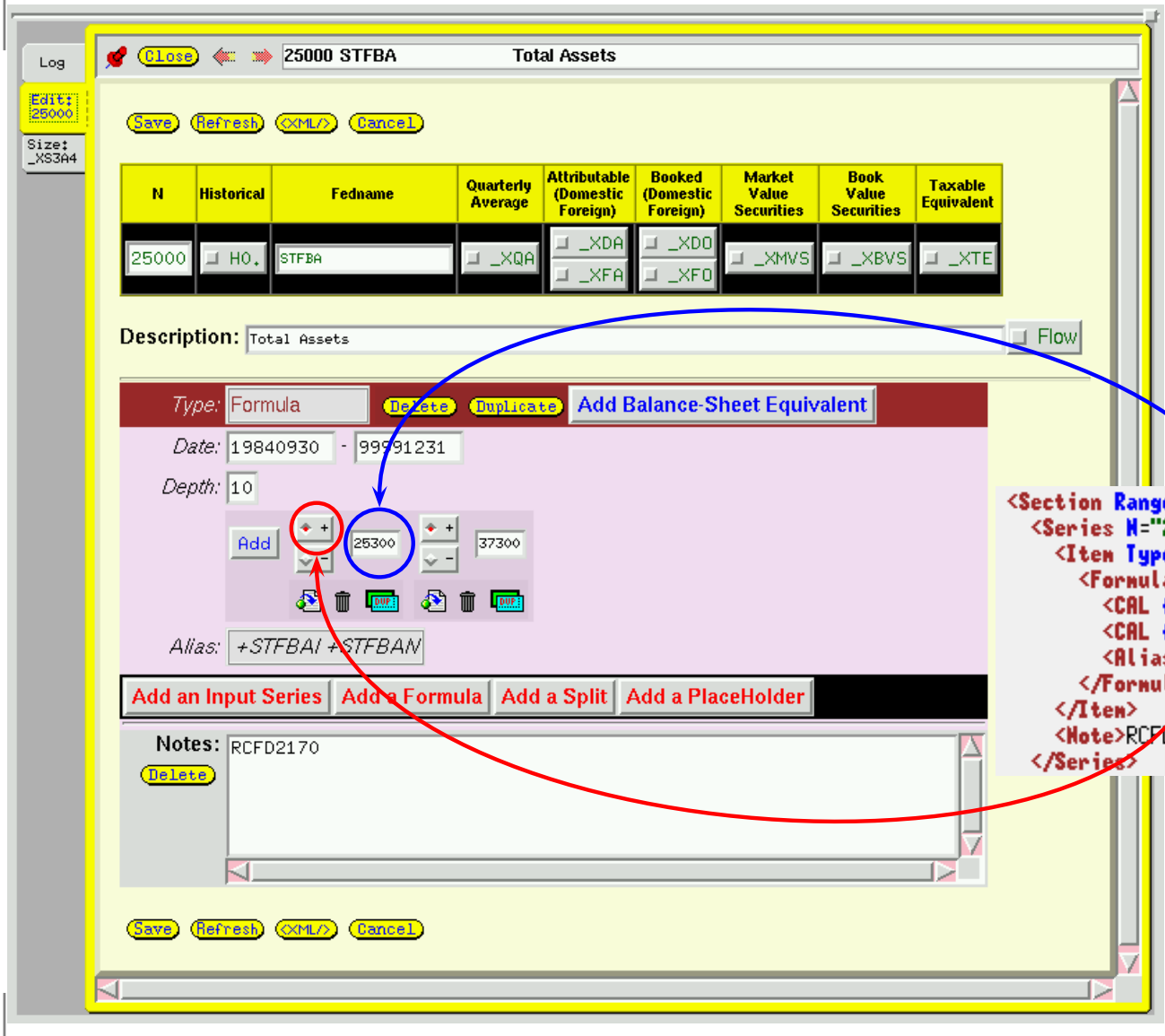


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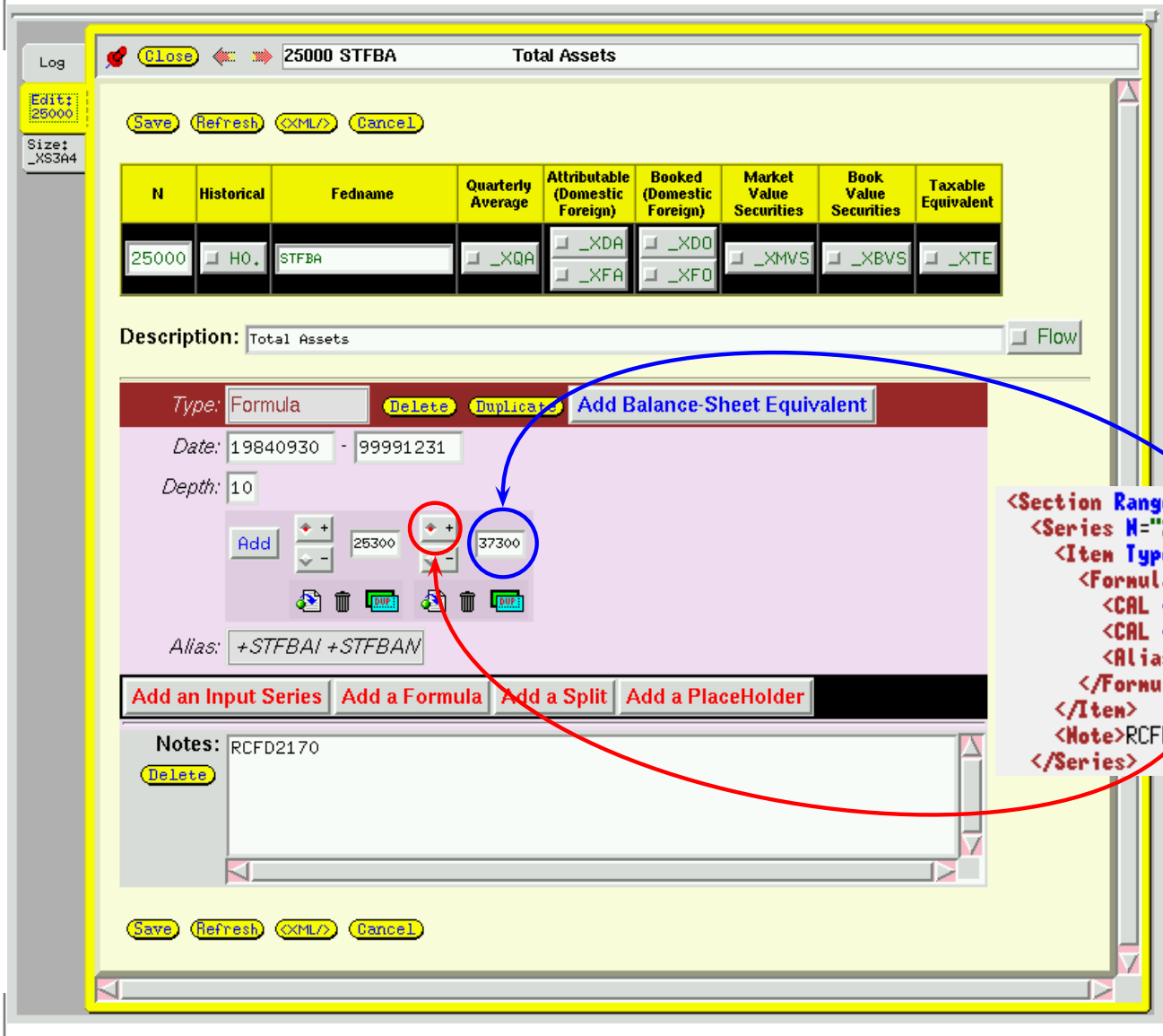


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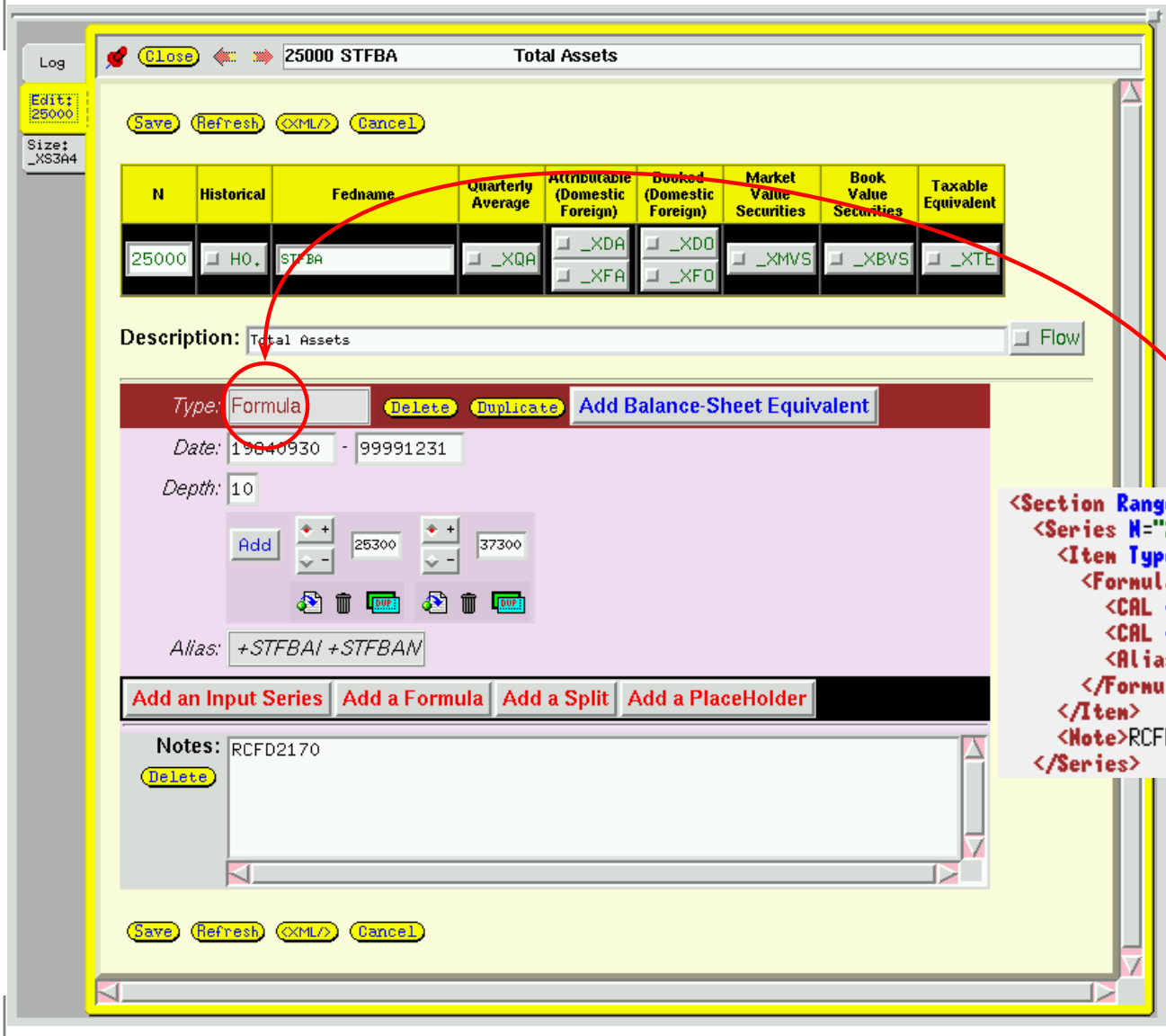


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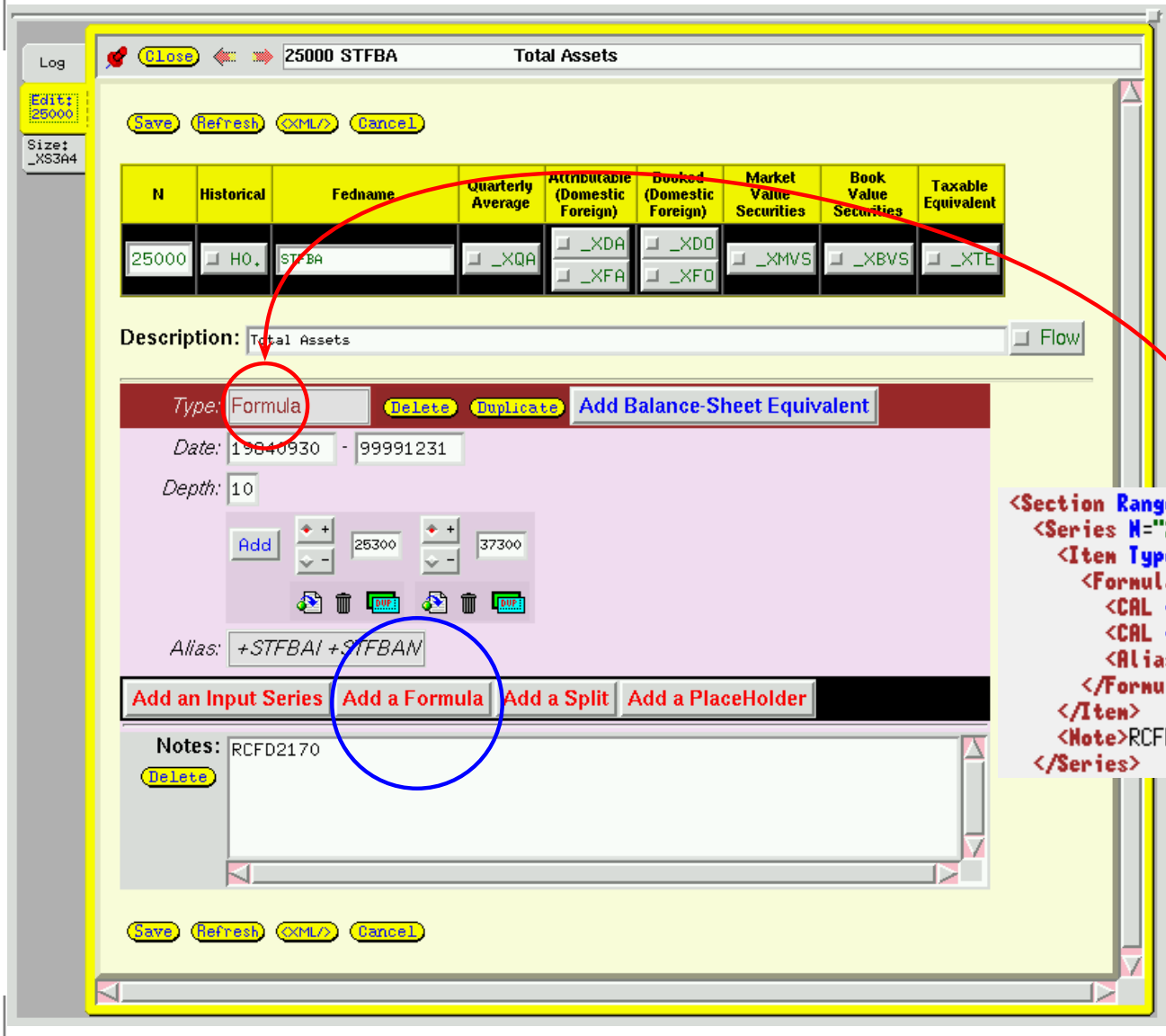


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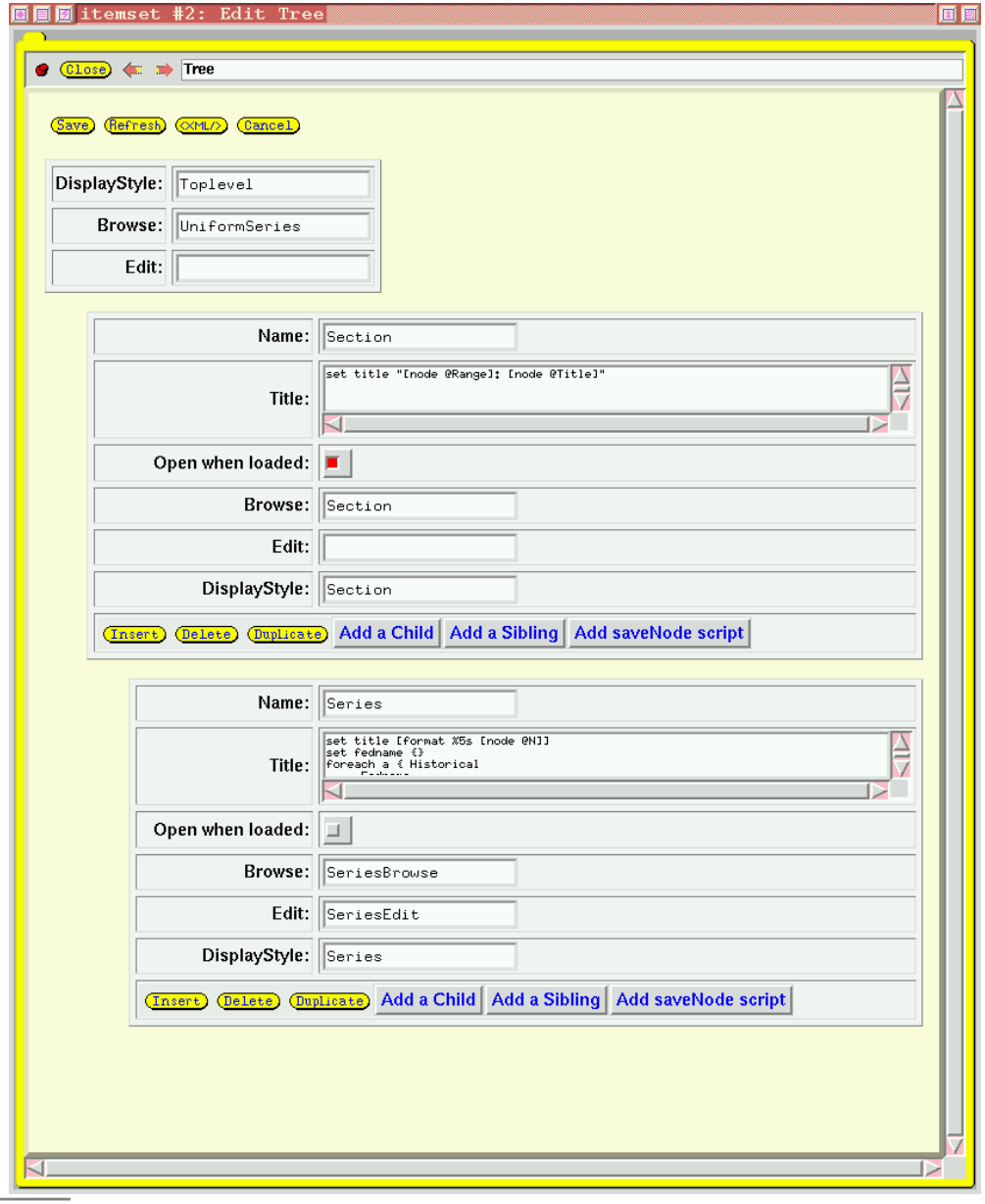

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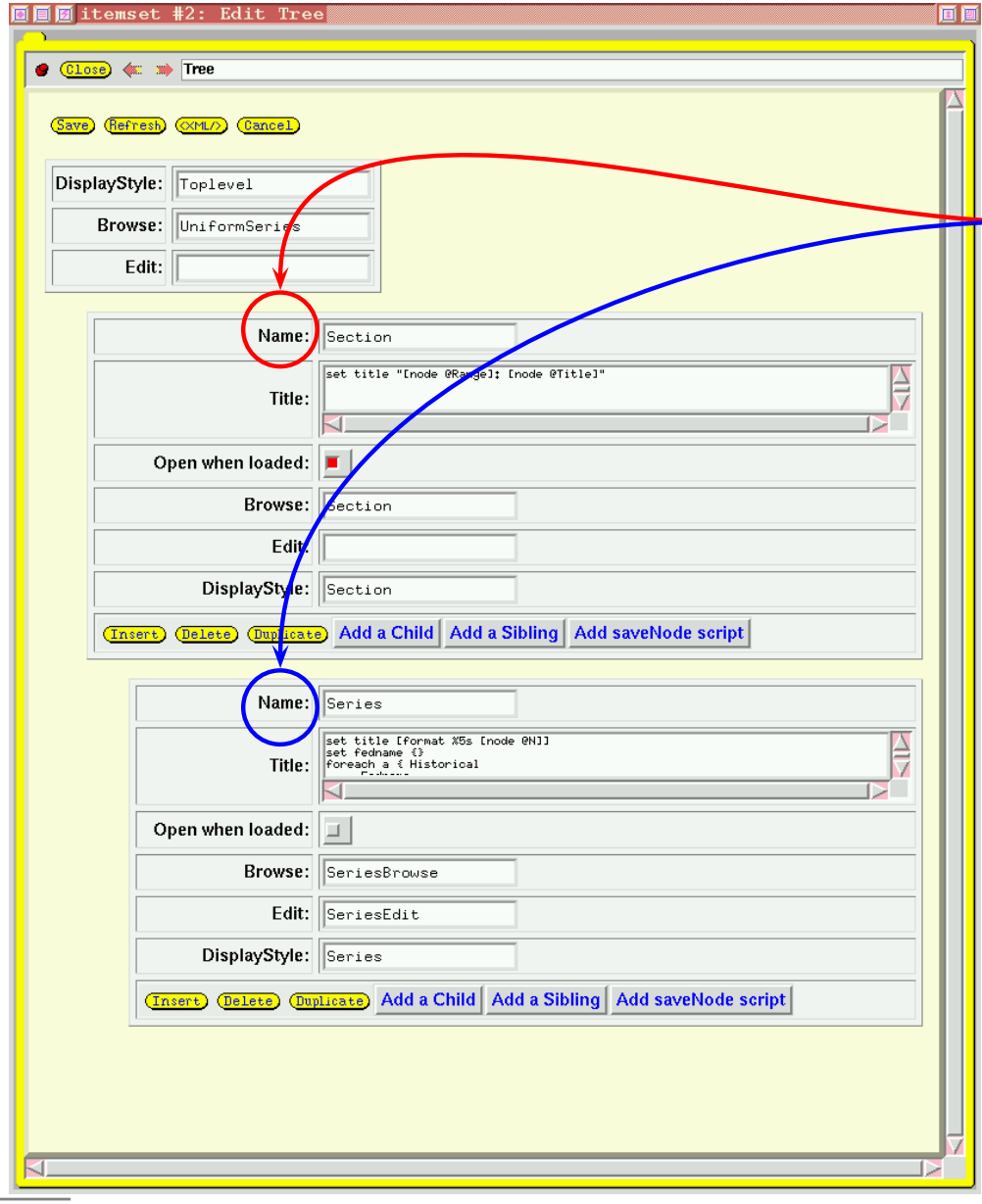

"Name" of the element to be displayed in the Tree.

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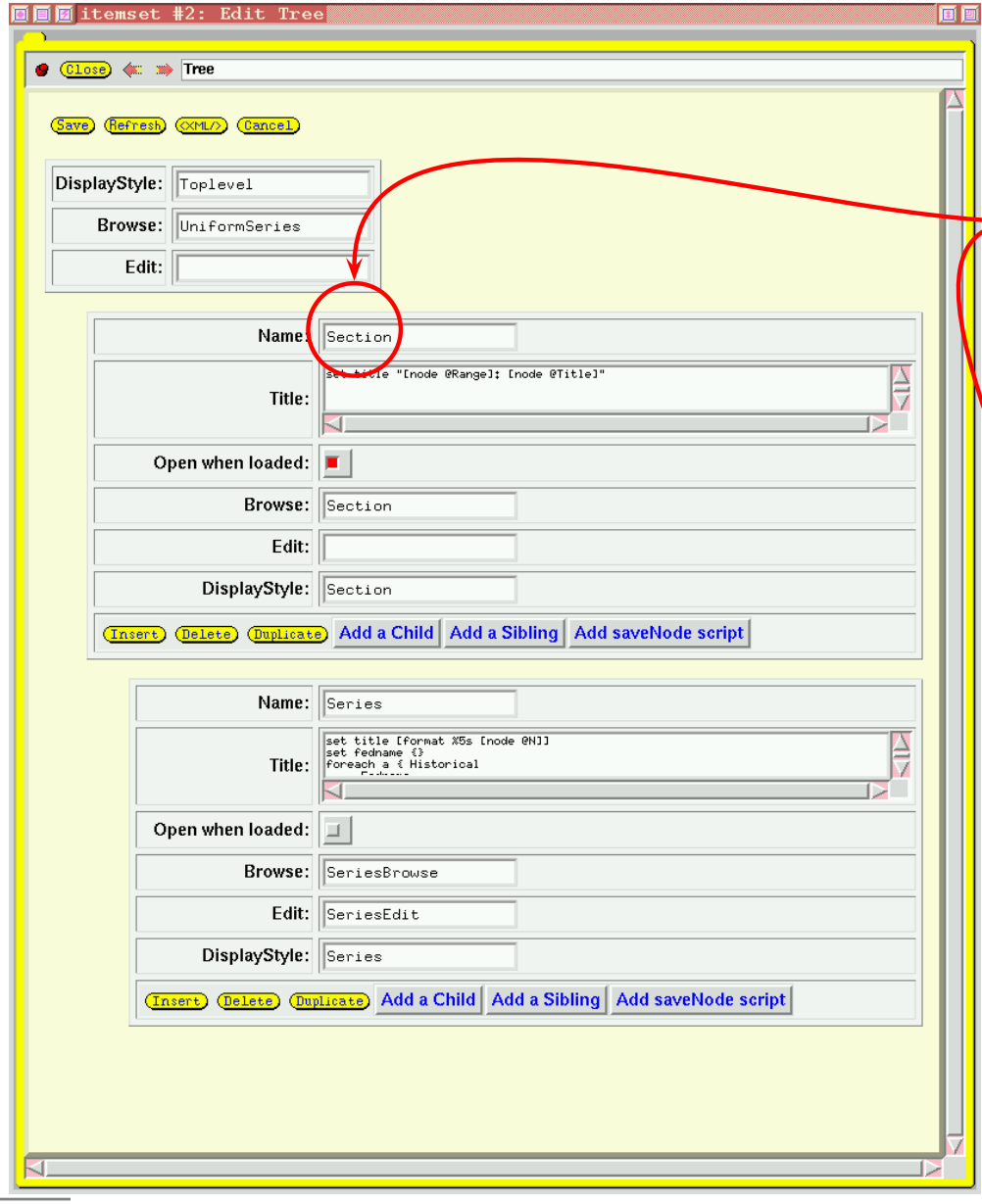

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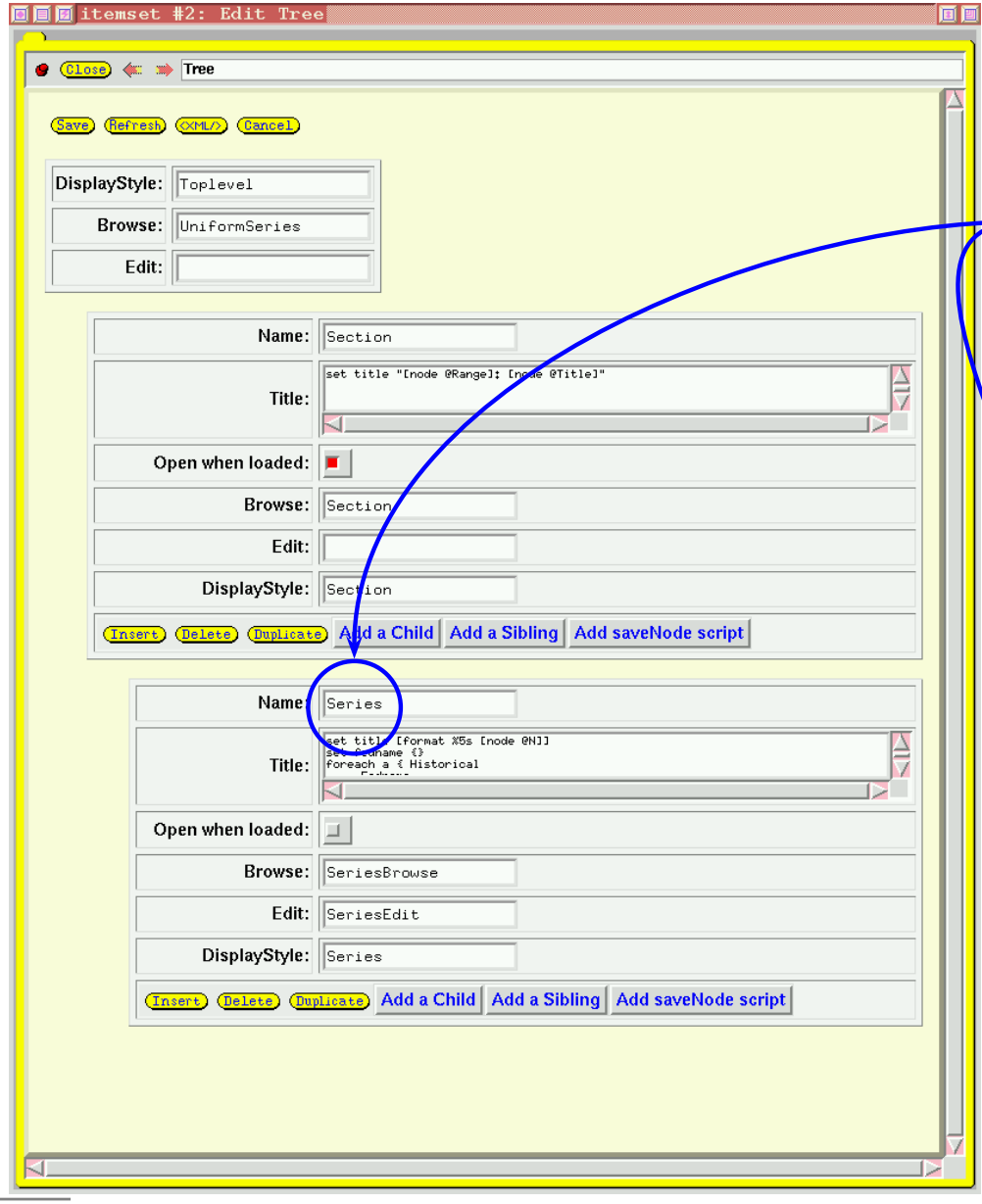

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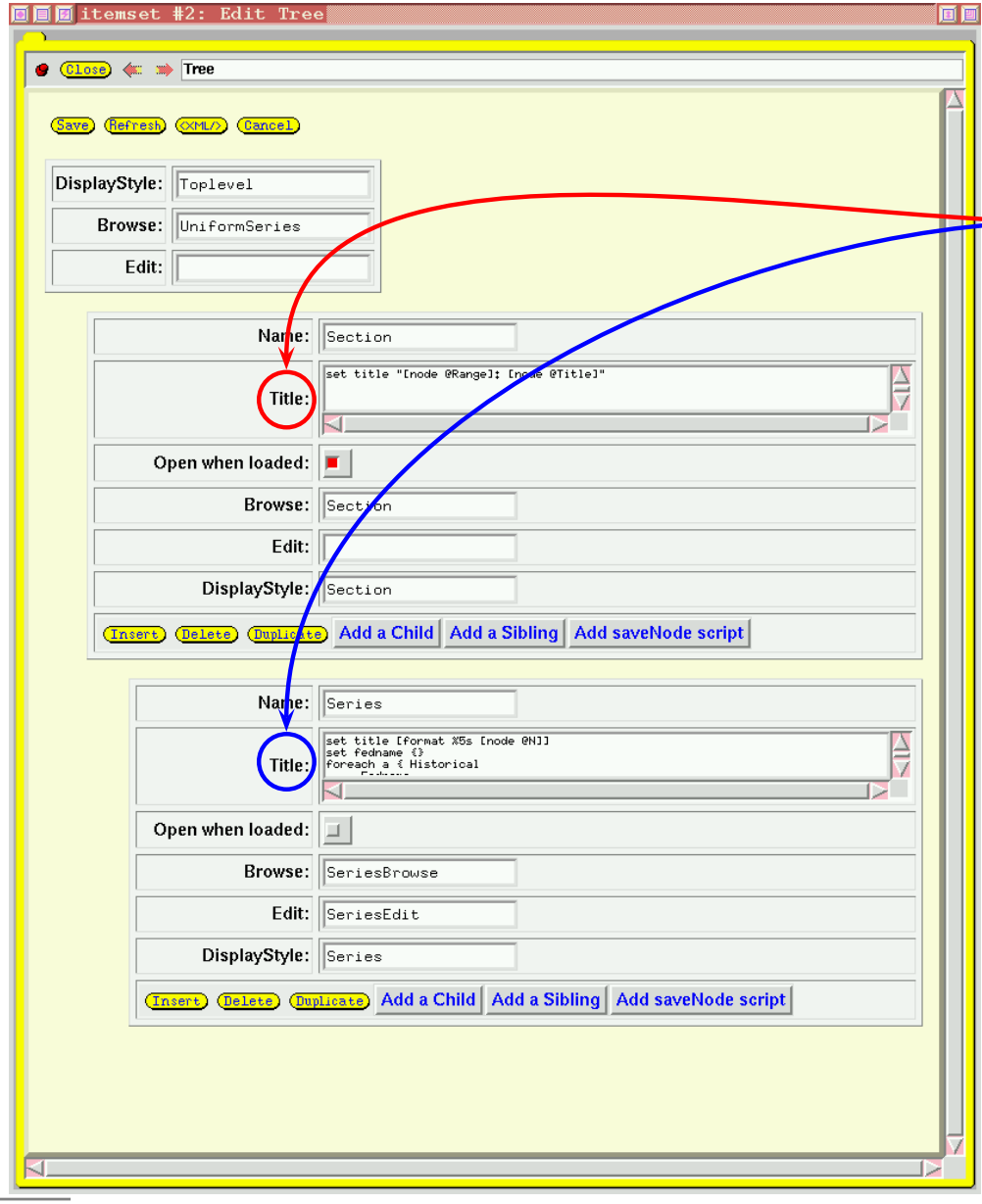
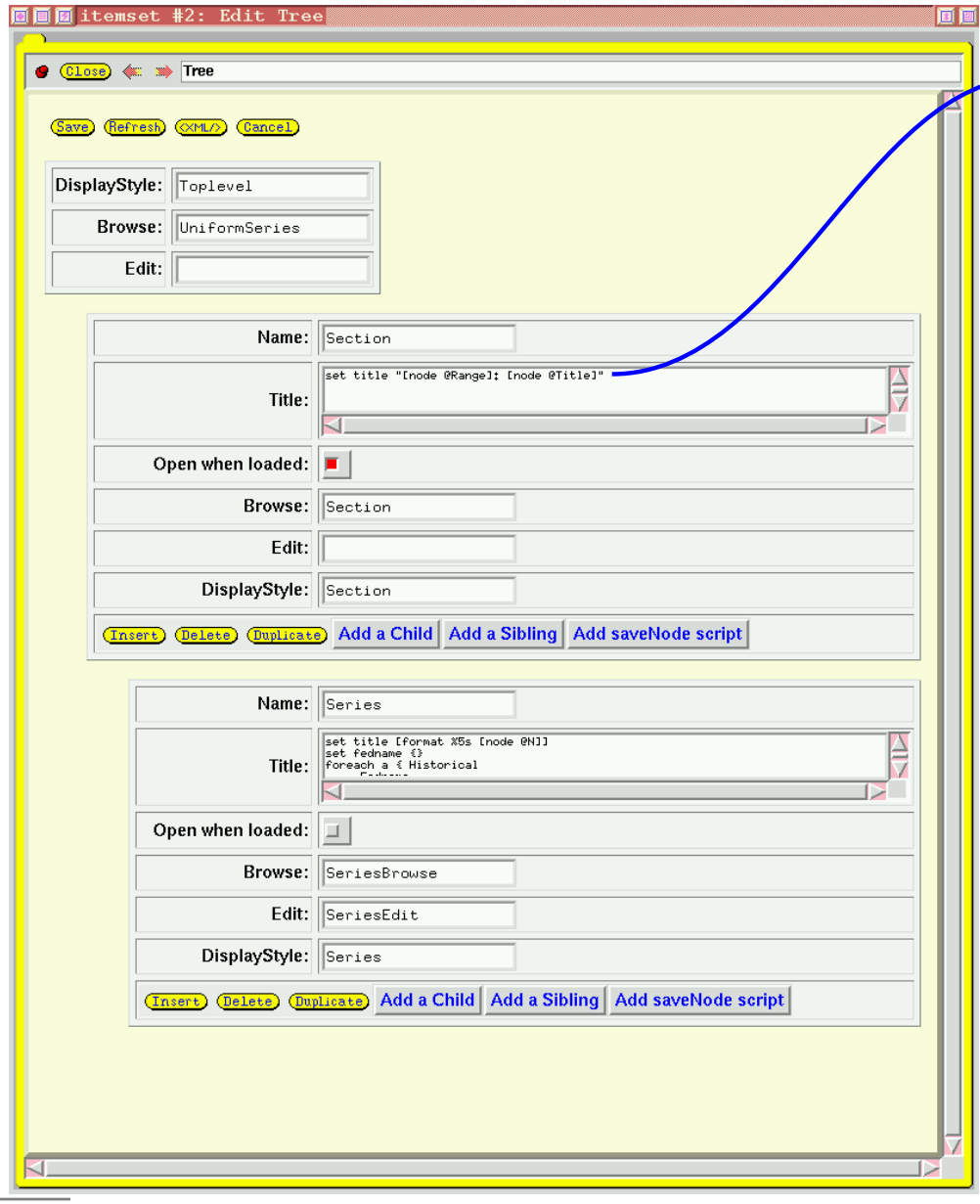


The “Title” contains Tcl code to create the Tree label.

GUI Configuration



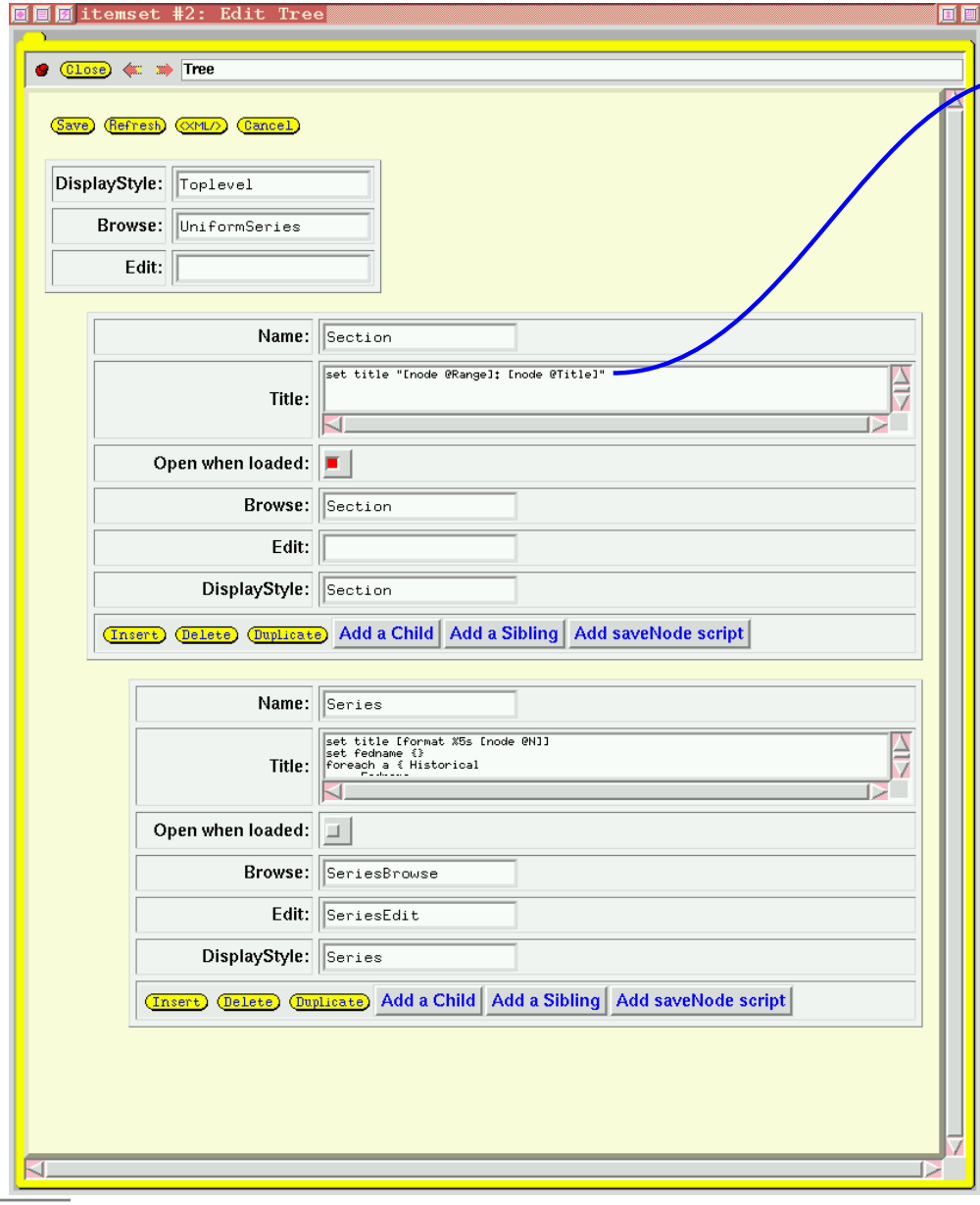
set title "[node @Range]: [node @Title]"

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

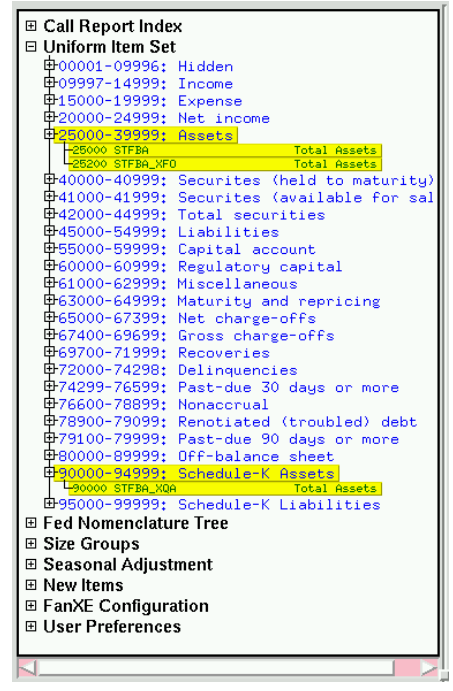
The final value of *$title* will be the label in the Tree.

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

GUI Configuration

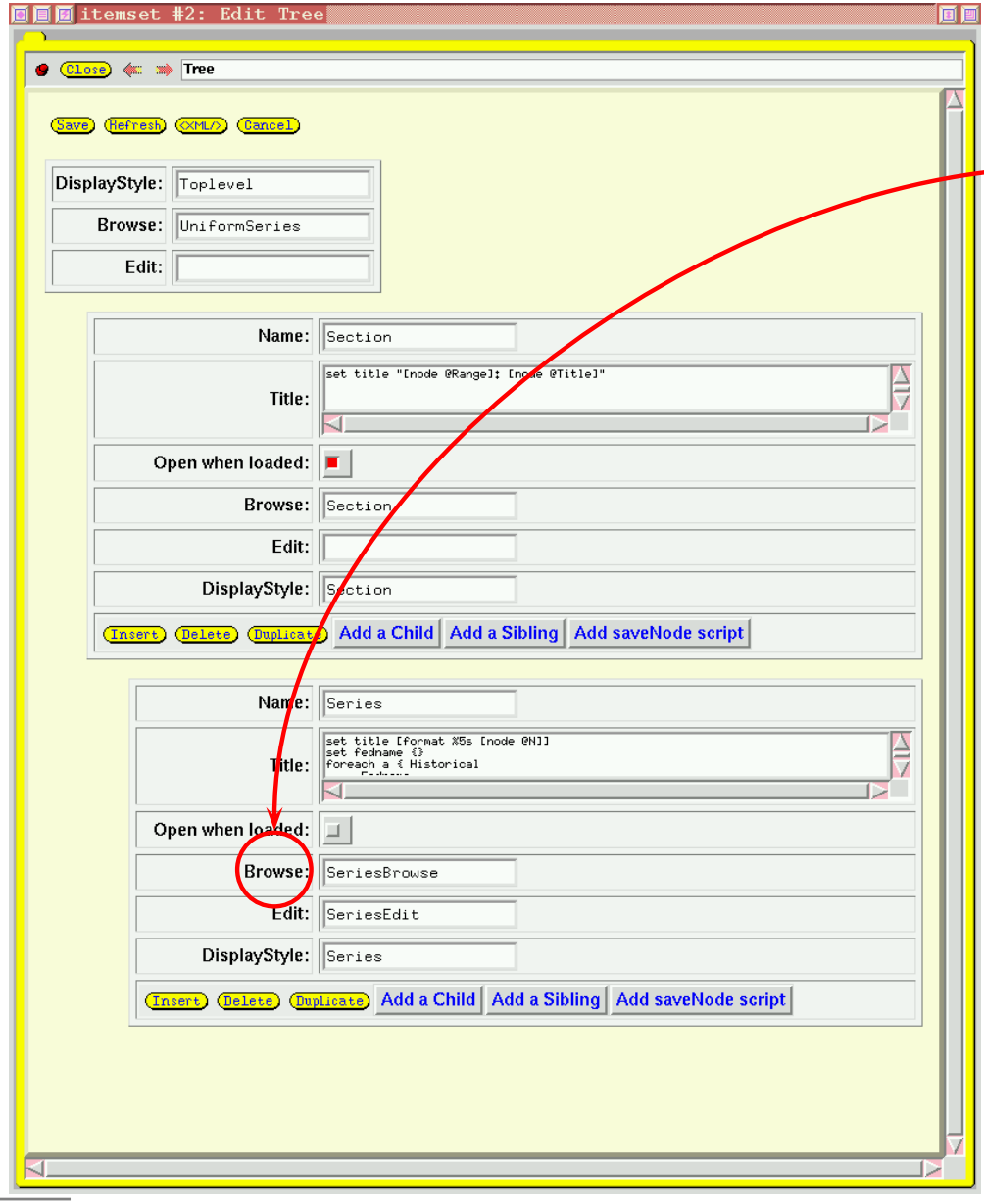


set title "[node @Range]: [node @Title]"

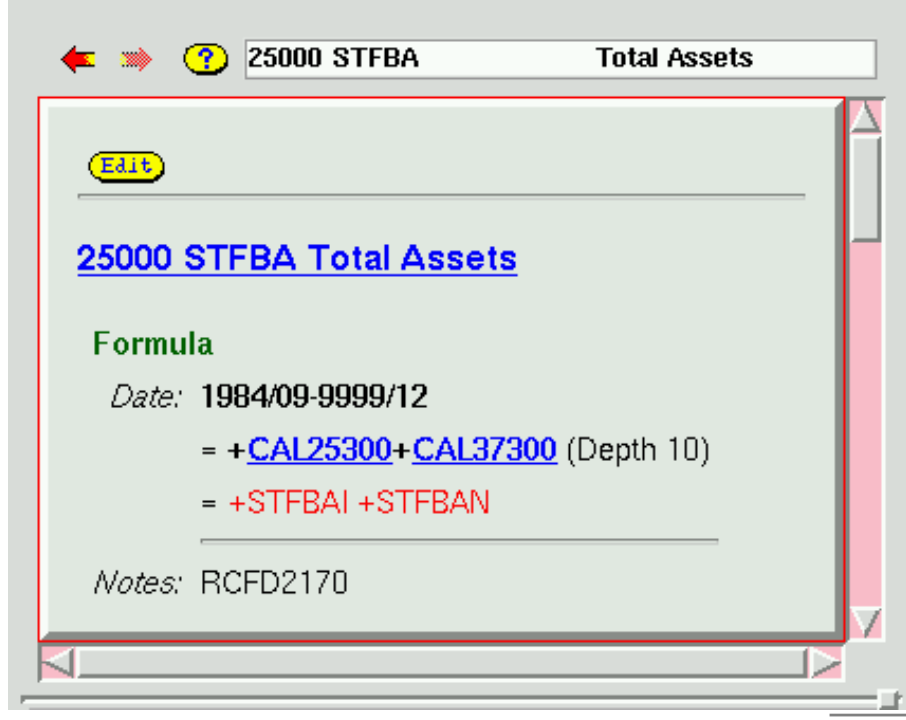



```
<Section Range="25000-39999" Title="Assets">
  <Series N="25000" Fedname="STFBA">Total Assets
    <Item Type="Formula" BeginDate="19840930" EndDate="99991231">
      <Formula Depth="10">
        <CAL f="+">25300</CAL>
        <CAL f="+">37300</CAL>
        <Alias> +STFBAI +STFBAN</Alias>
      </Formula>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

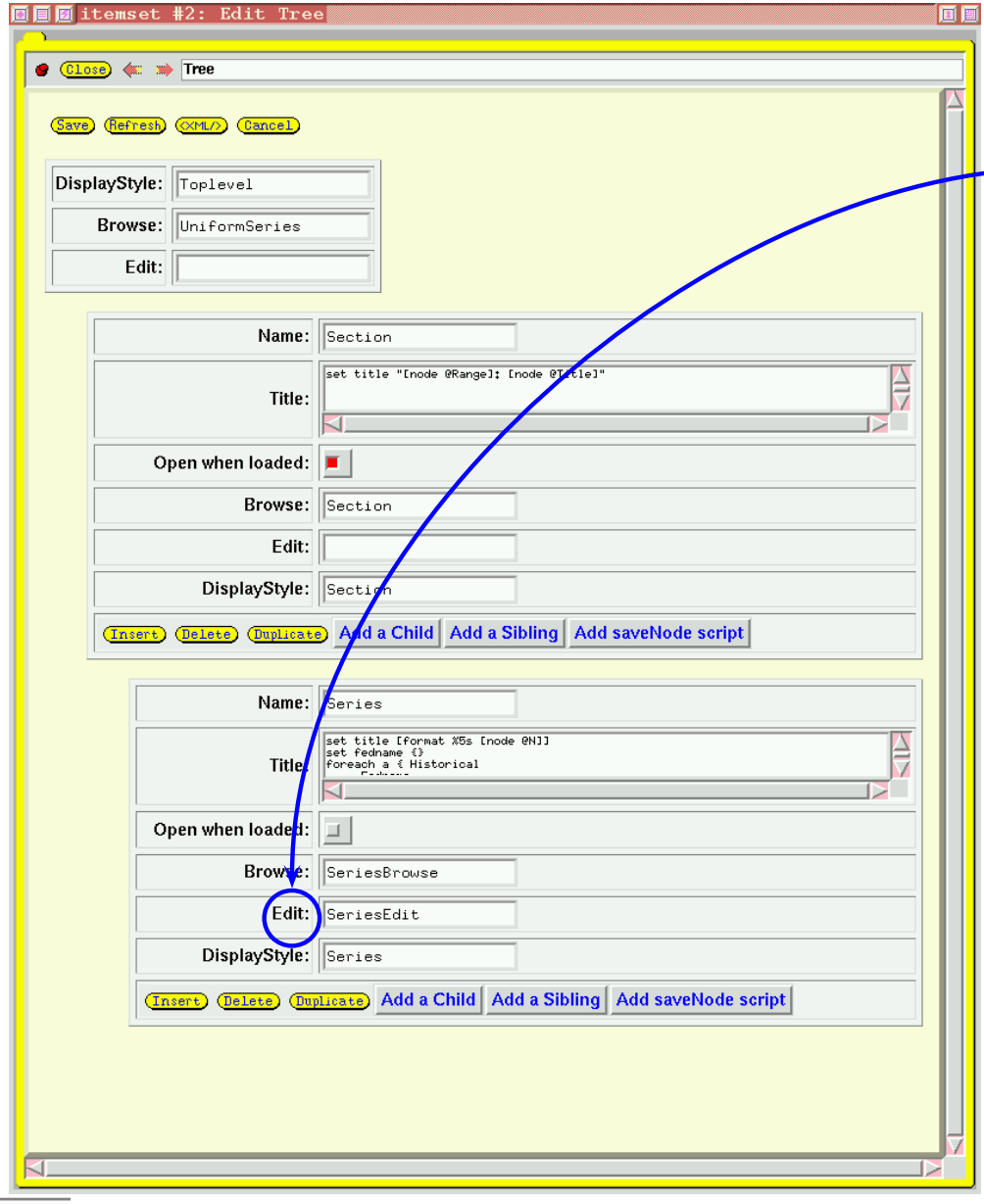
GUI Configuration



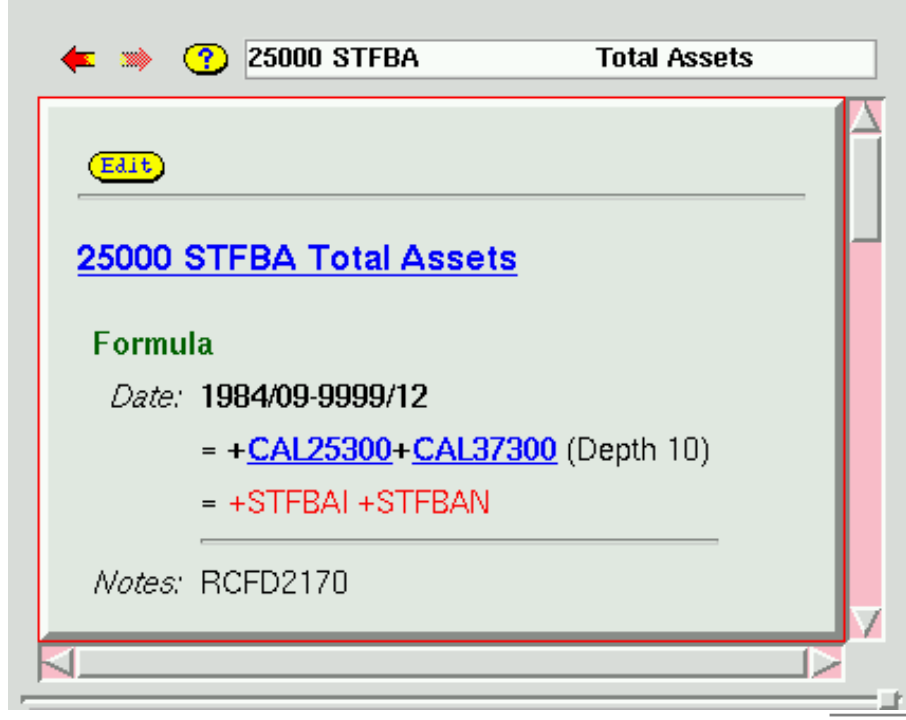
"Browse" contains the name of a style sheet that is applied when selecting a node in the Tree.



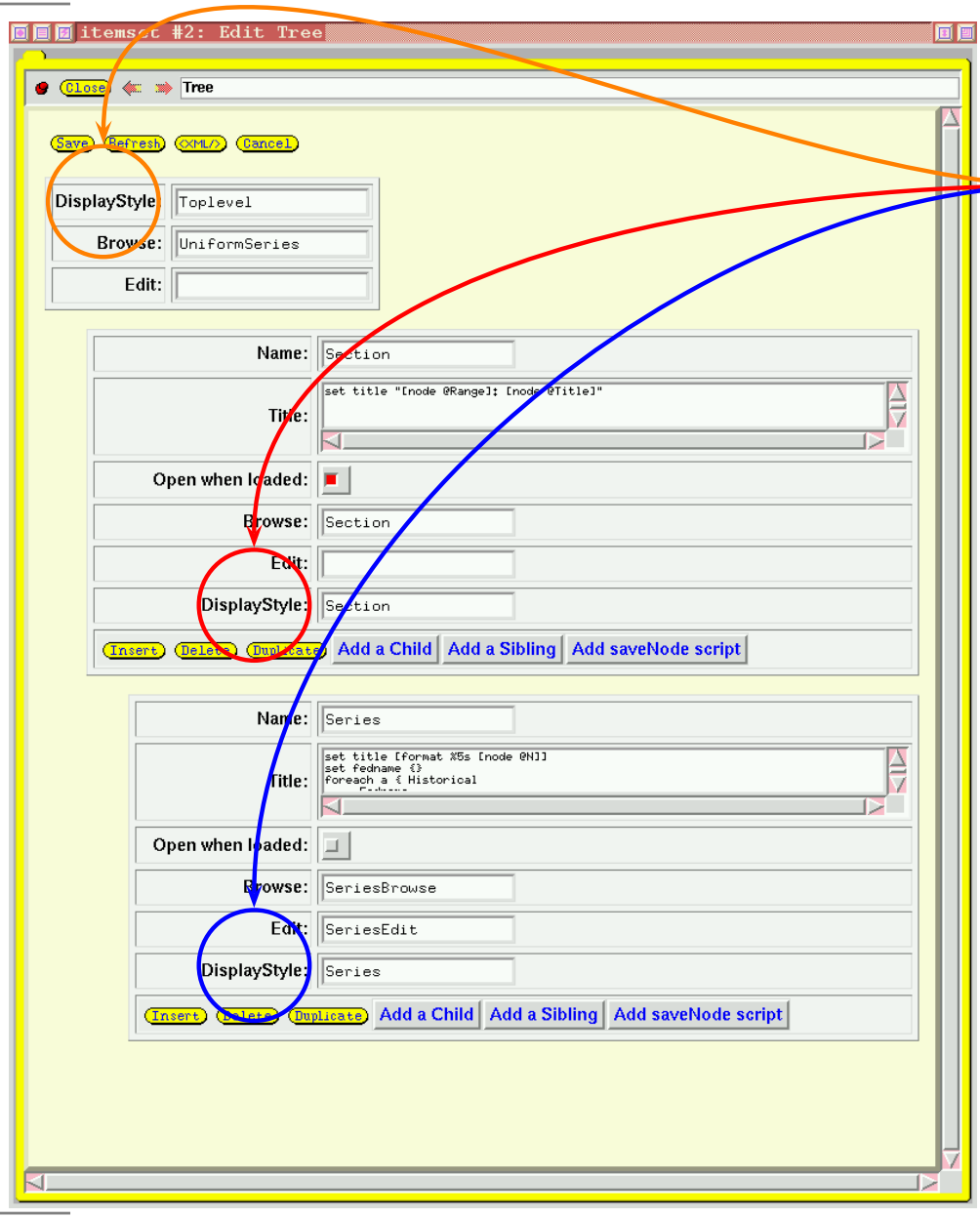
GUI Configuration



"Edit" contains the name of a style sheet that is applied when the Edit button is pressed.

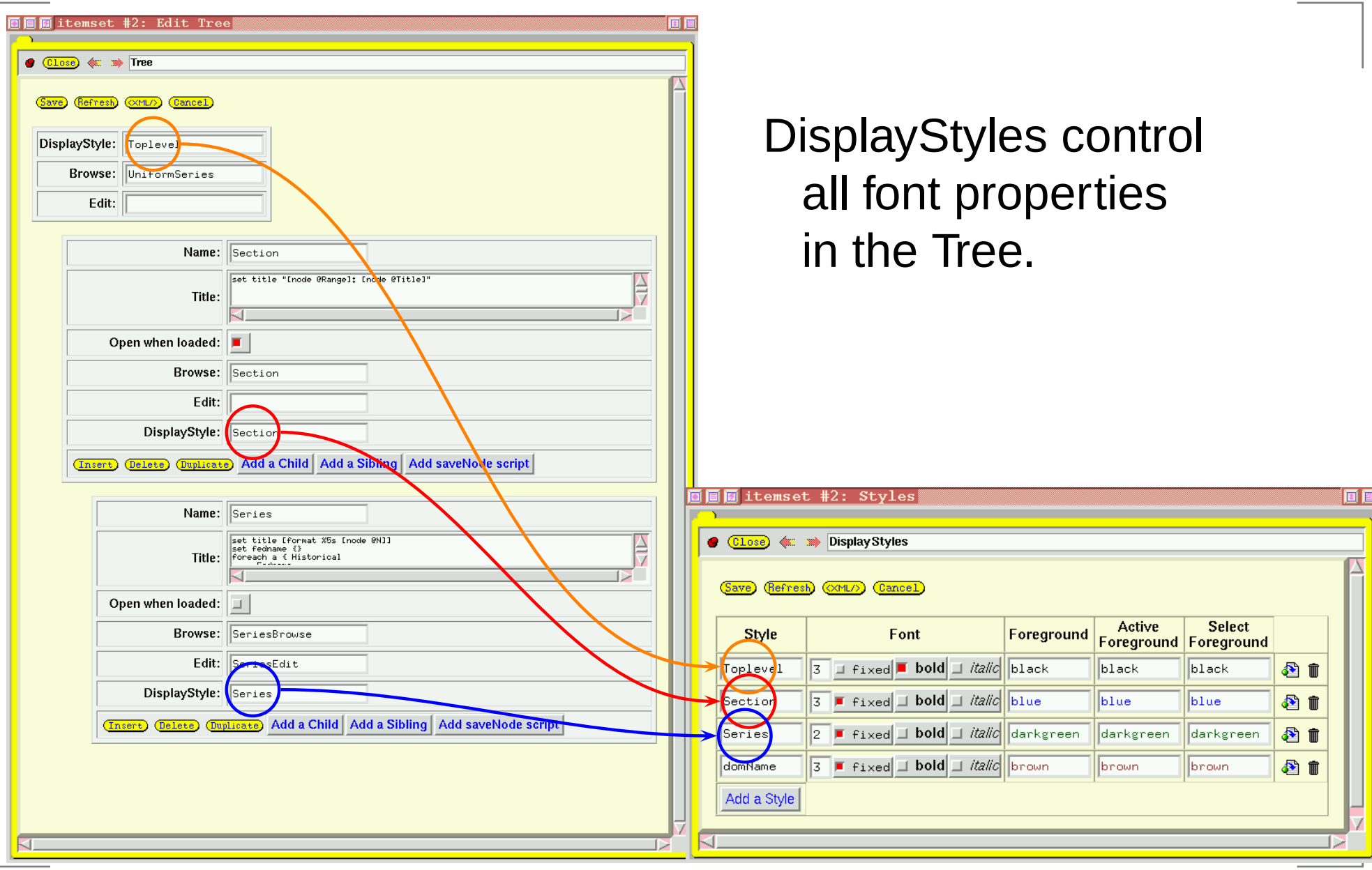


GUI Configuration



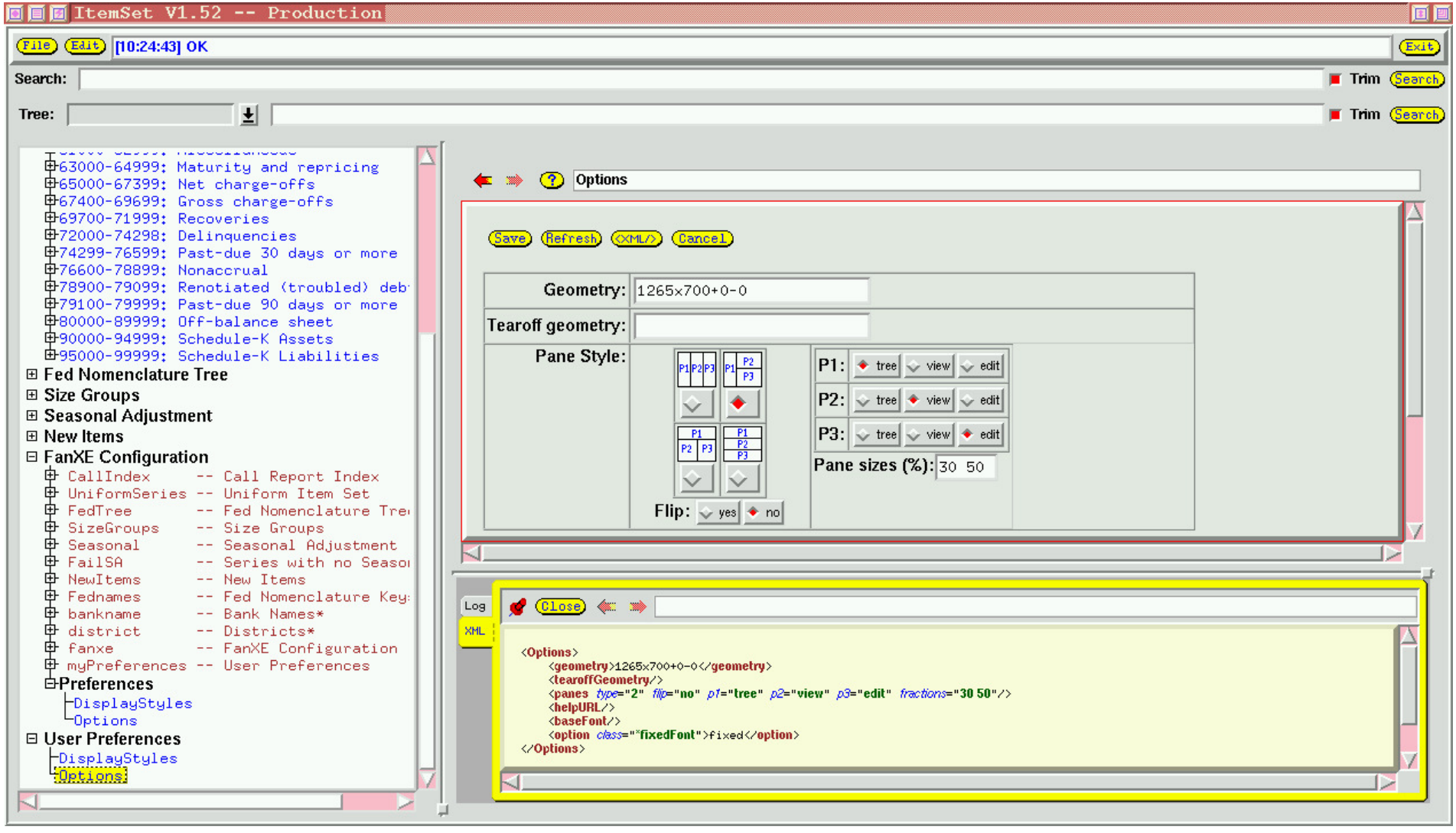
"DisplayStyle" contains the name of a **Tix** DisplayStyle object.

GUI Configuration



DisplayStyles control all font properties in the Tree.

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
74299-76599: Past-due 30 days or more
76600-78899: Nonaccrual
78900-79099: Renotiated (troubled) deb
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
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Seasonal -- Seasonal Adjustment
FailSA -- Series with no Seaso
NewItems -- New Items
Fednames -- Fed Nomenclature Key
bankname -- Bank Names*
district -- Districts*
fanxe -- FanXE Configuration
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Options
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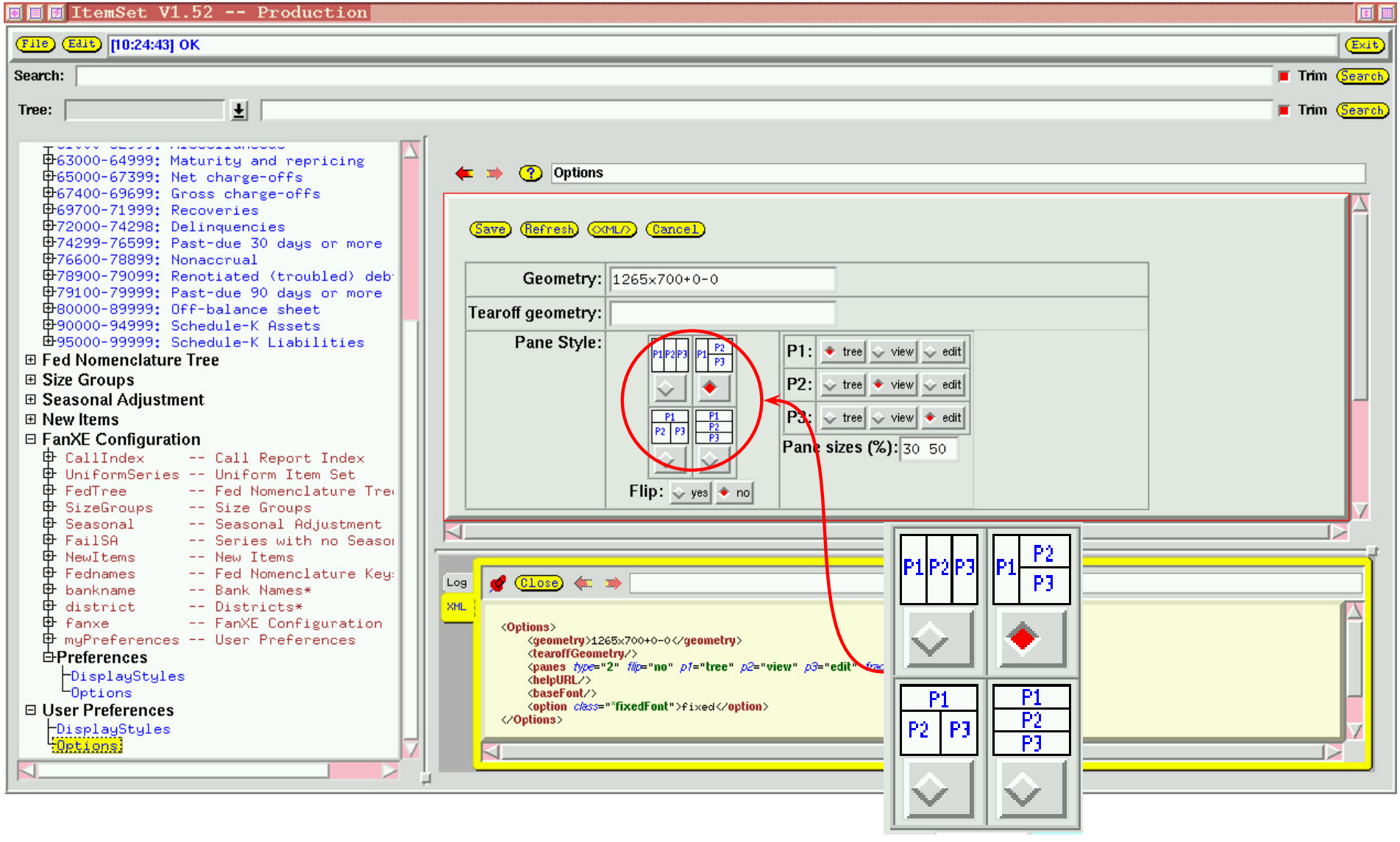
Options
Save
Refresh
<XML/>
Cancel
Geometry:
1265x700+0-0
Tearoff geometry:
Pane Style:
Flip:
yes
no
P1:
tree
view
edit
P2:
tree
view
edit
P3:
tree
view
edit
Pane sizes (%):
30 50
Log
XML
Close
<Options>
<geometry>1265x700+0-0</geometry>
<tearoffGeometry/>
<panes type="2" flip="no" p1="tree" p2="view" p3="edit" fractions="30 50"/>
<helpURL/>
<baseFont/>
<option class="fixedFont">fixed</option>
</Options>

Pane Layout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Pane sizes (%):
30 50
Flip:
yes
no
Log
XML
Close
<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

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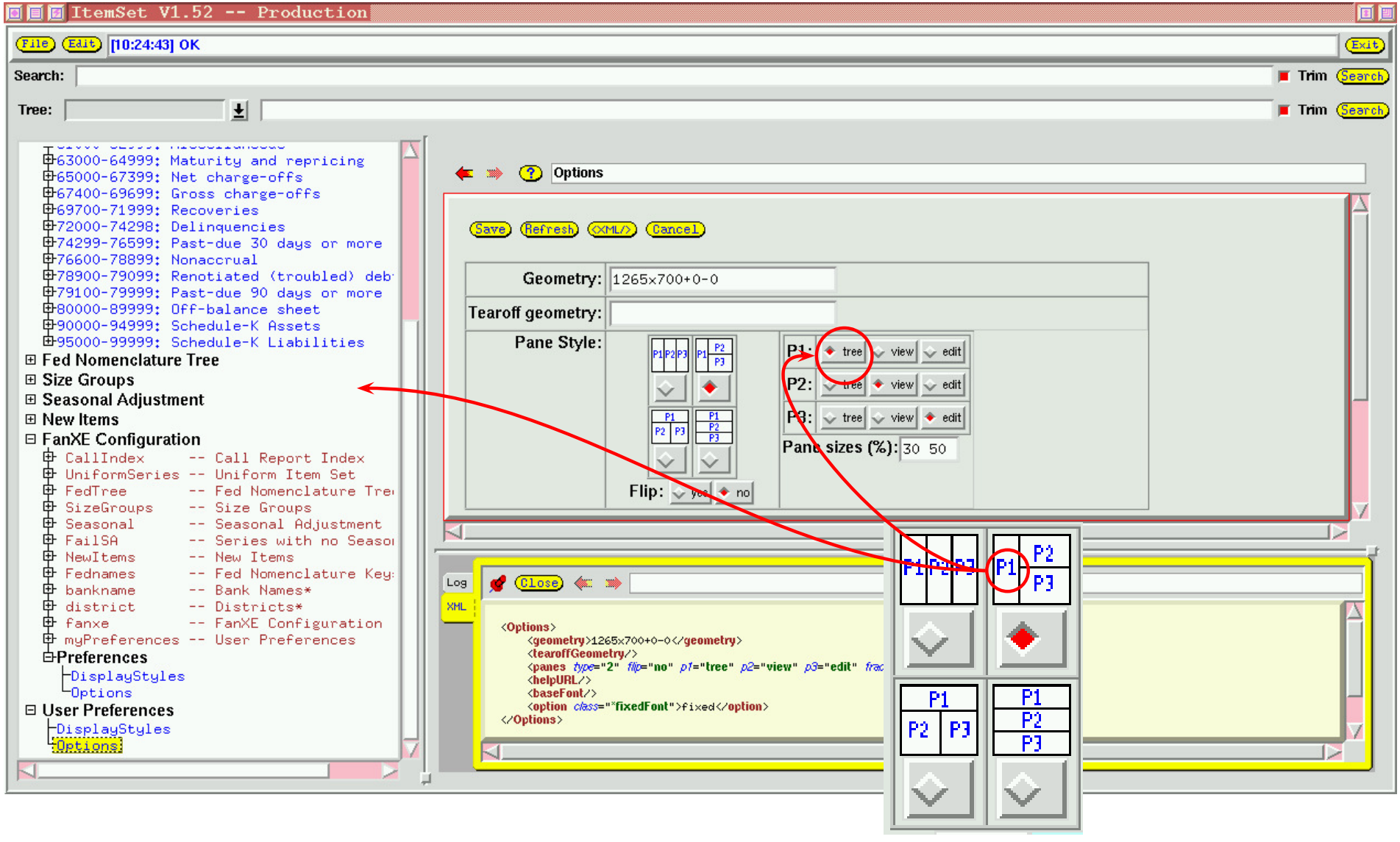
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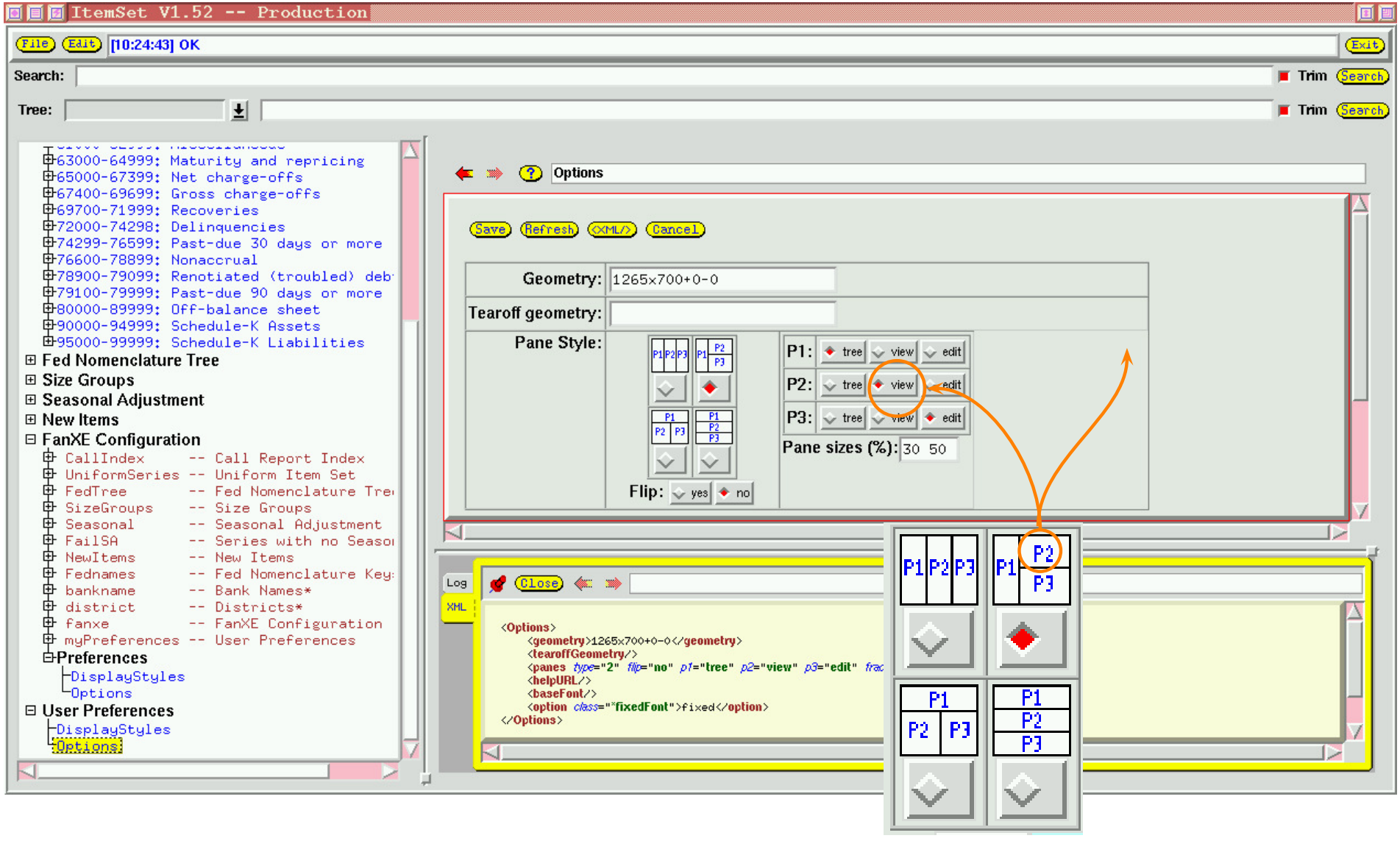
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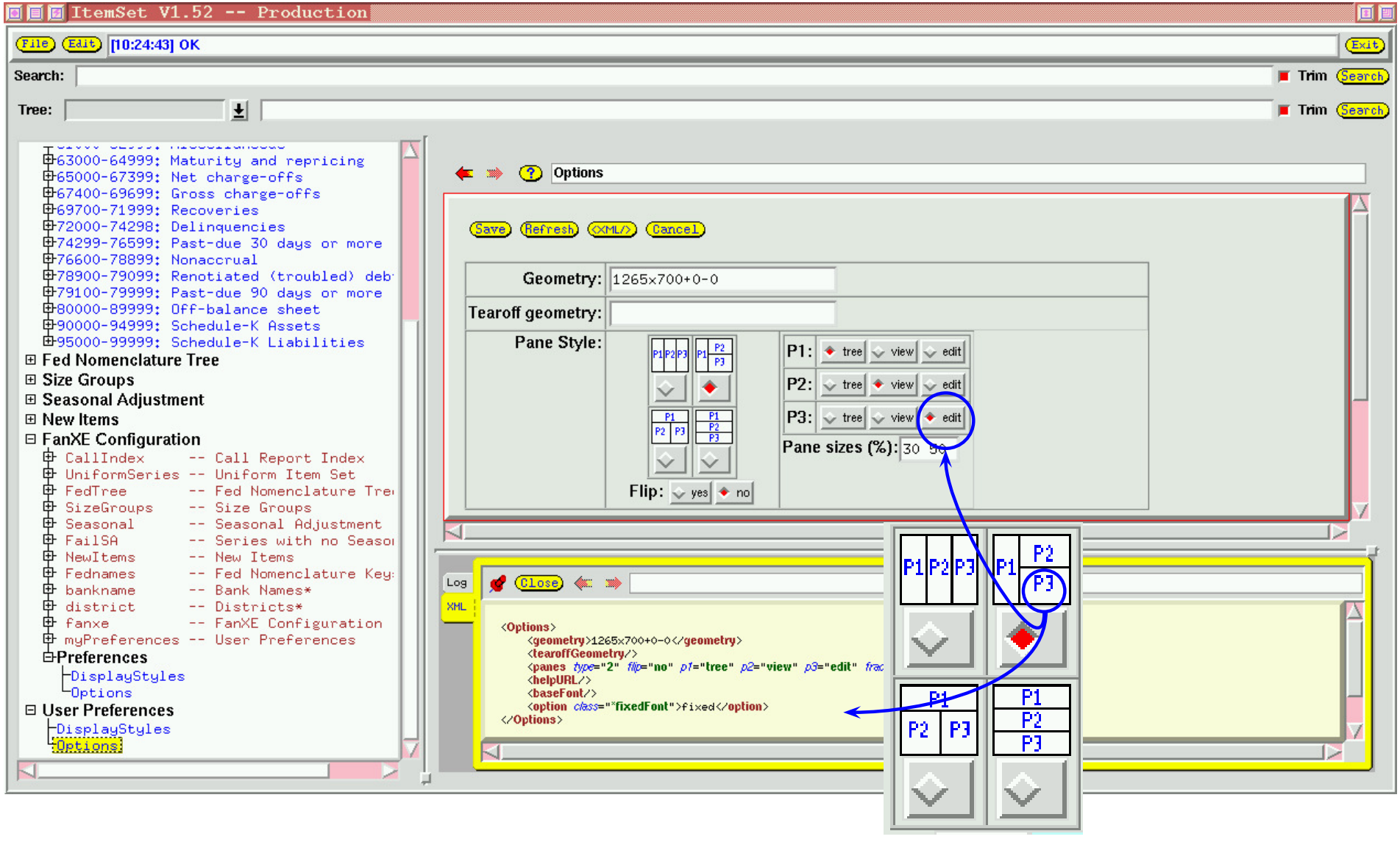
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<helpURL/>
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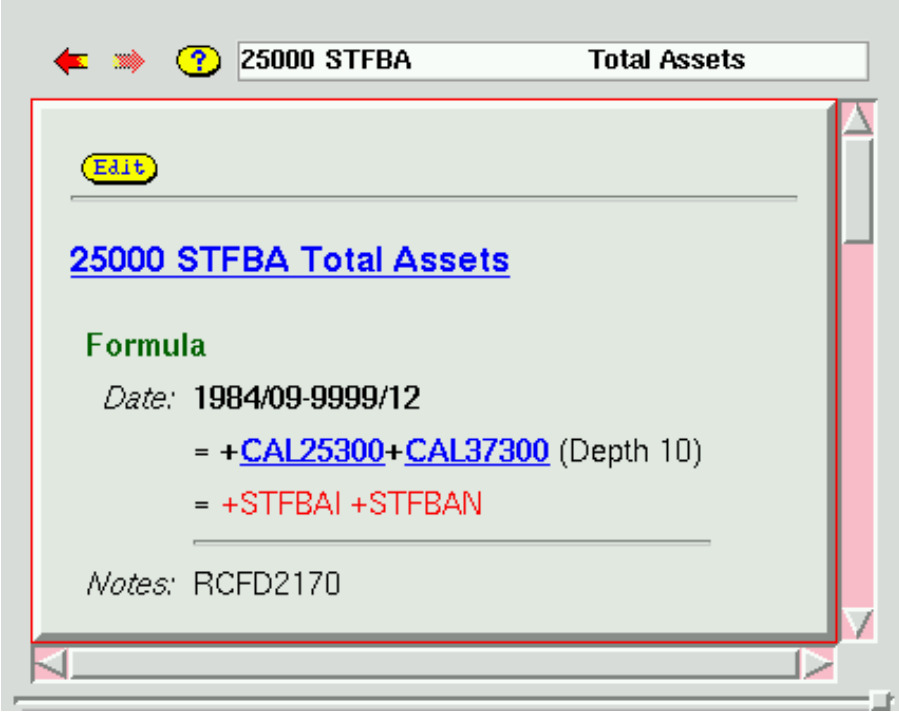
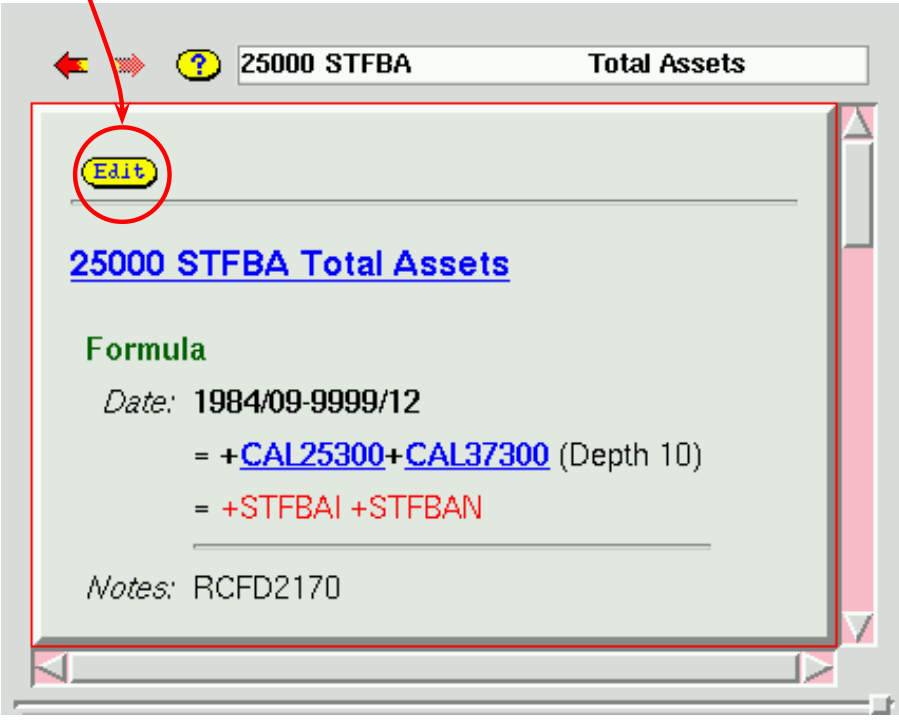
Special Links



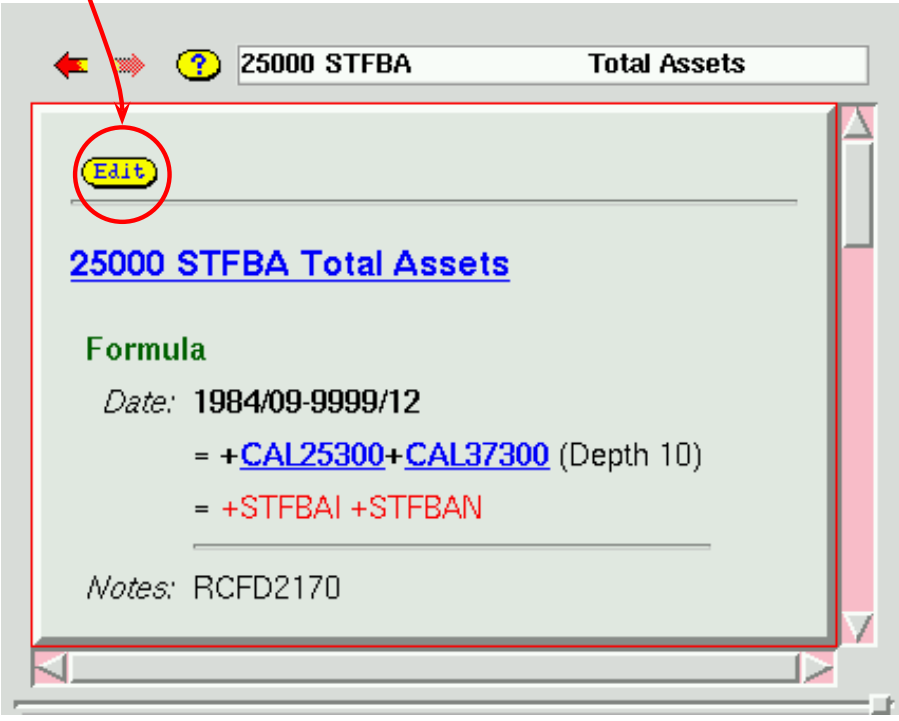
Special Links

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



Special Links

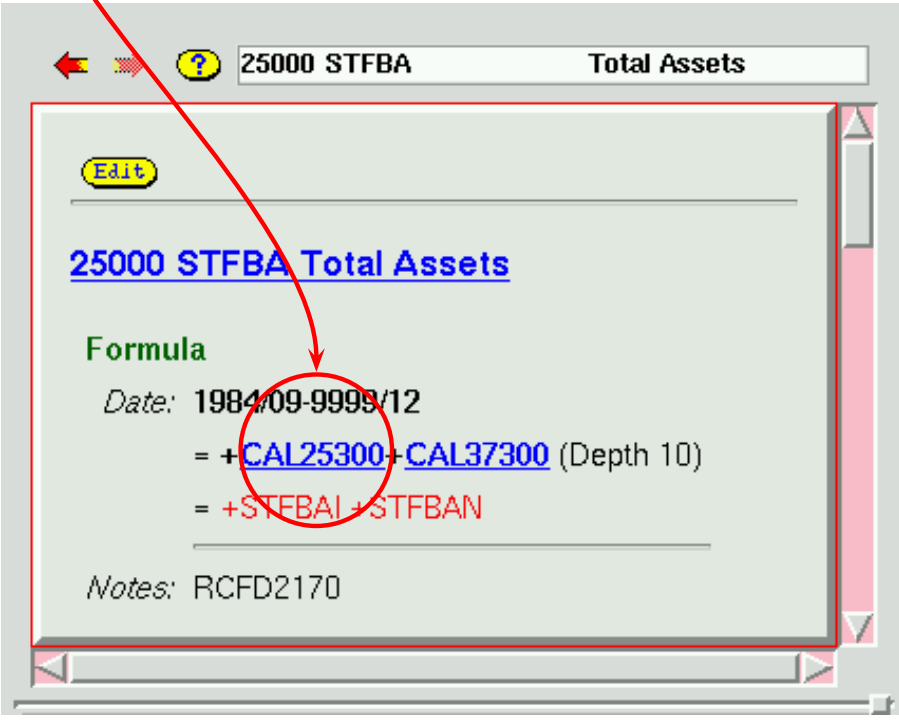
<input type="image" name="edit" src="http://FanXE/Edit" value="Edit">



The FanXE hostname links to internal images.

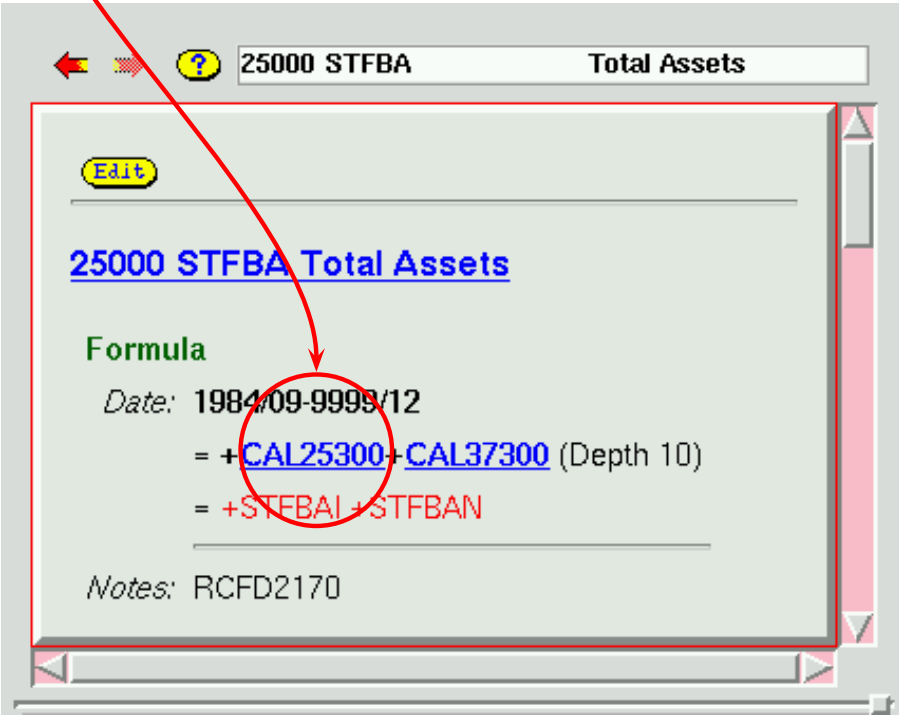
Special Links

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



Special Links

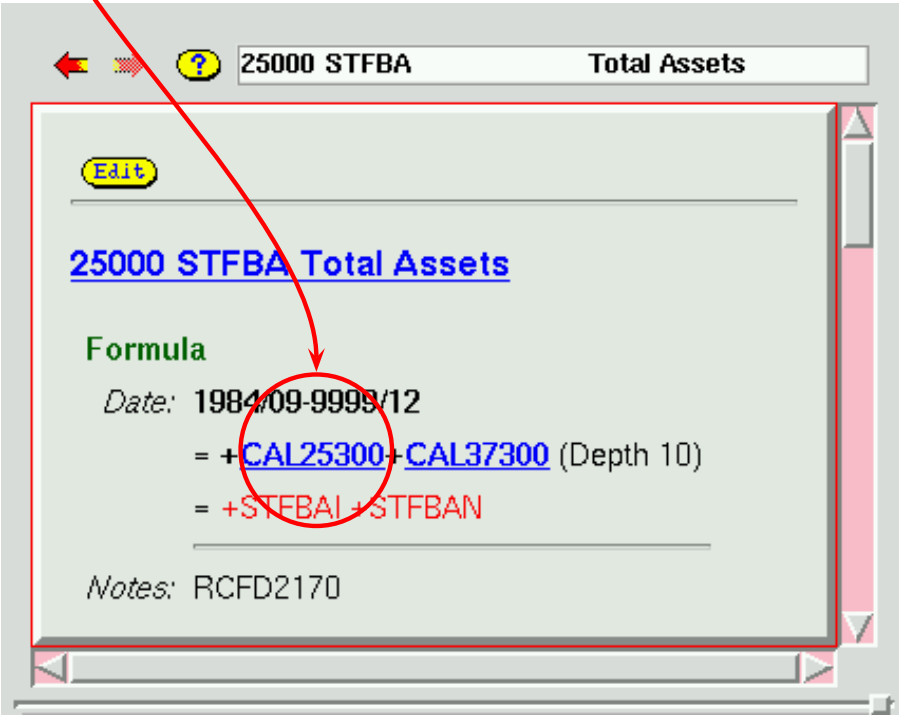
<a href="fanxe://UniformSeries//Series[@N='25300']">



The fanxe URI scheme links to XPath expressions.

Special Links

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

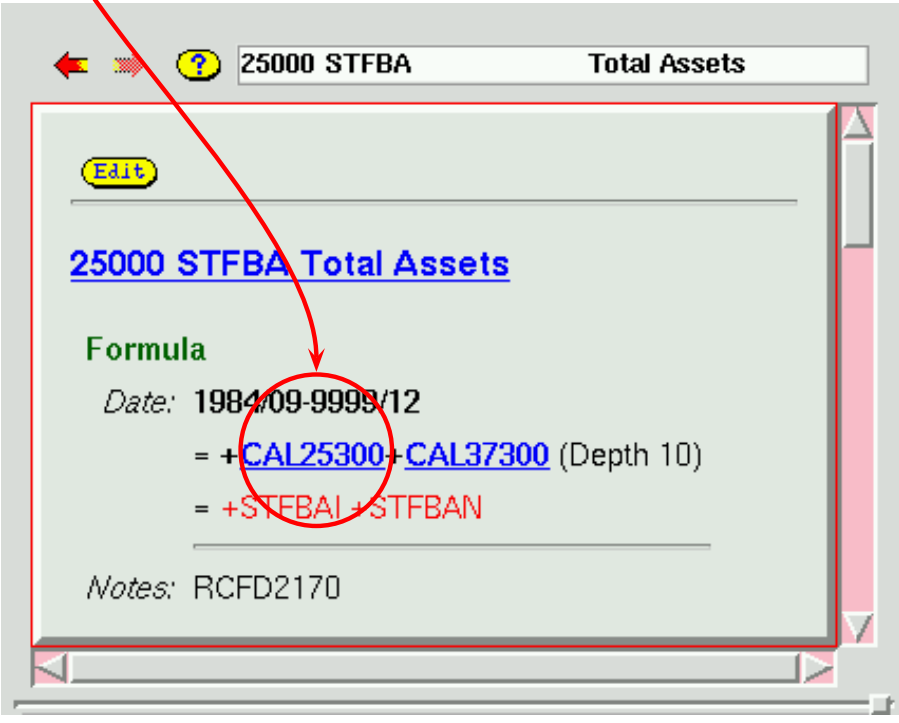


The fanxe URI scheme links to XPath expressions.

UniformSeries is the DOM name.

Special Links

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



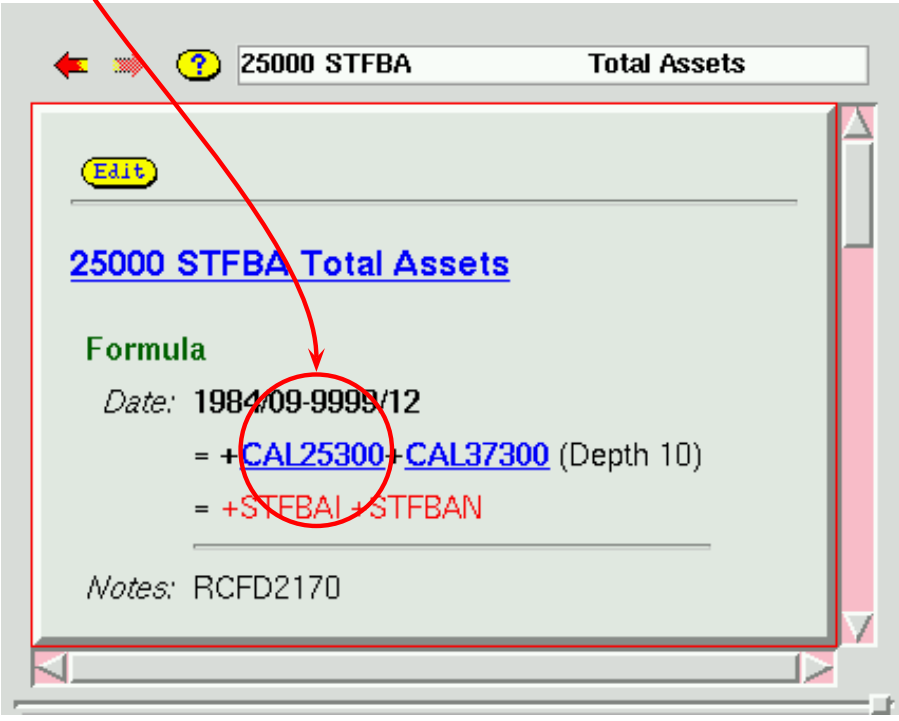
The fanxe URI scheme links to XPath expressions.

UniformSeries is the DOM name.

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

Special Links

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



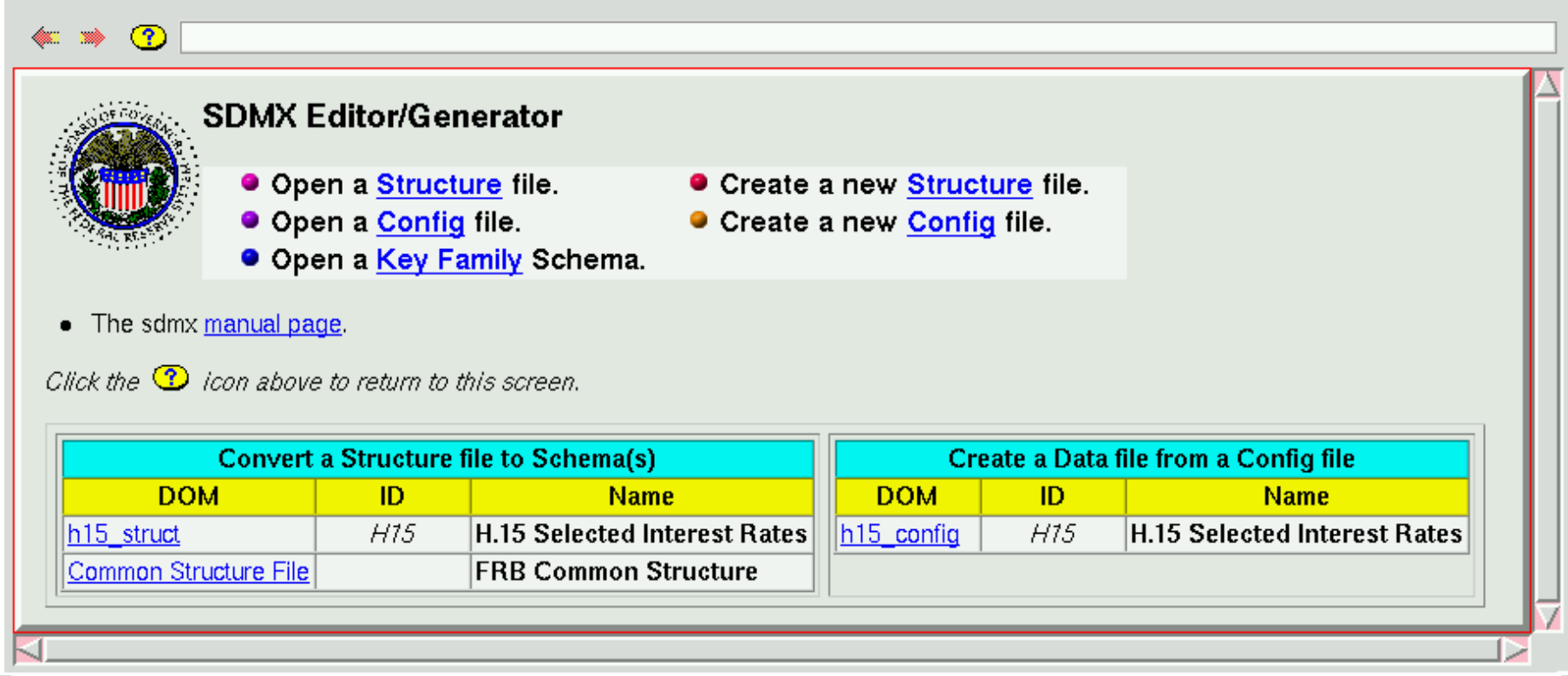
The fanxe URI scheme links to XPath expressions.

UniformSeries is the DOM name.

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

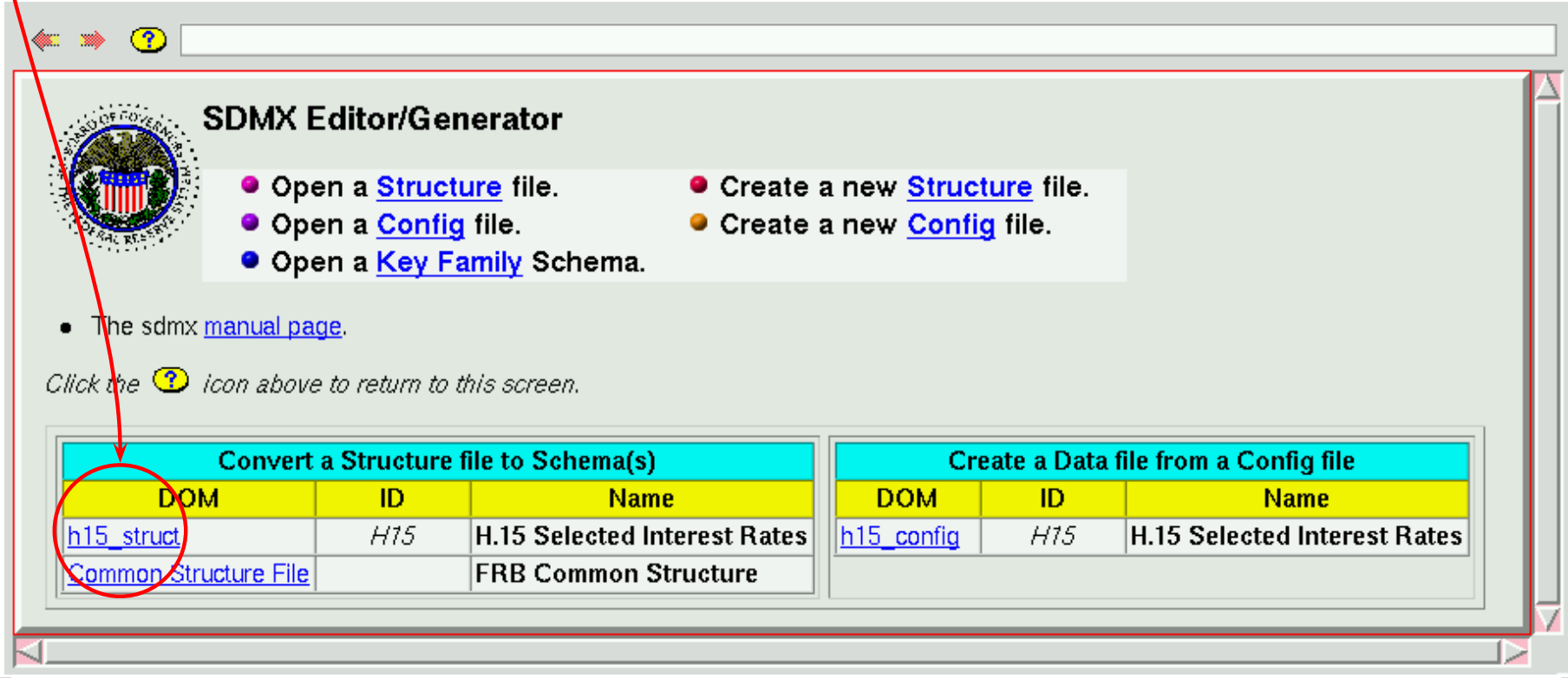
If multiple nodes match the XPath, the first one is opened and others are highlighted. Middle-clicking opens the first 10 matches in new tabs.

Special Links



Special Links

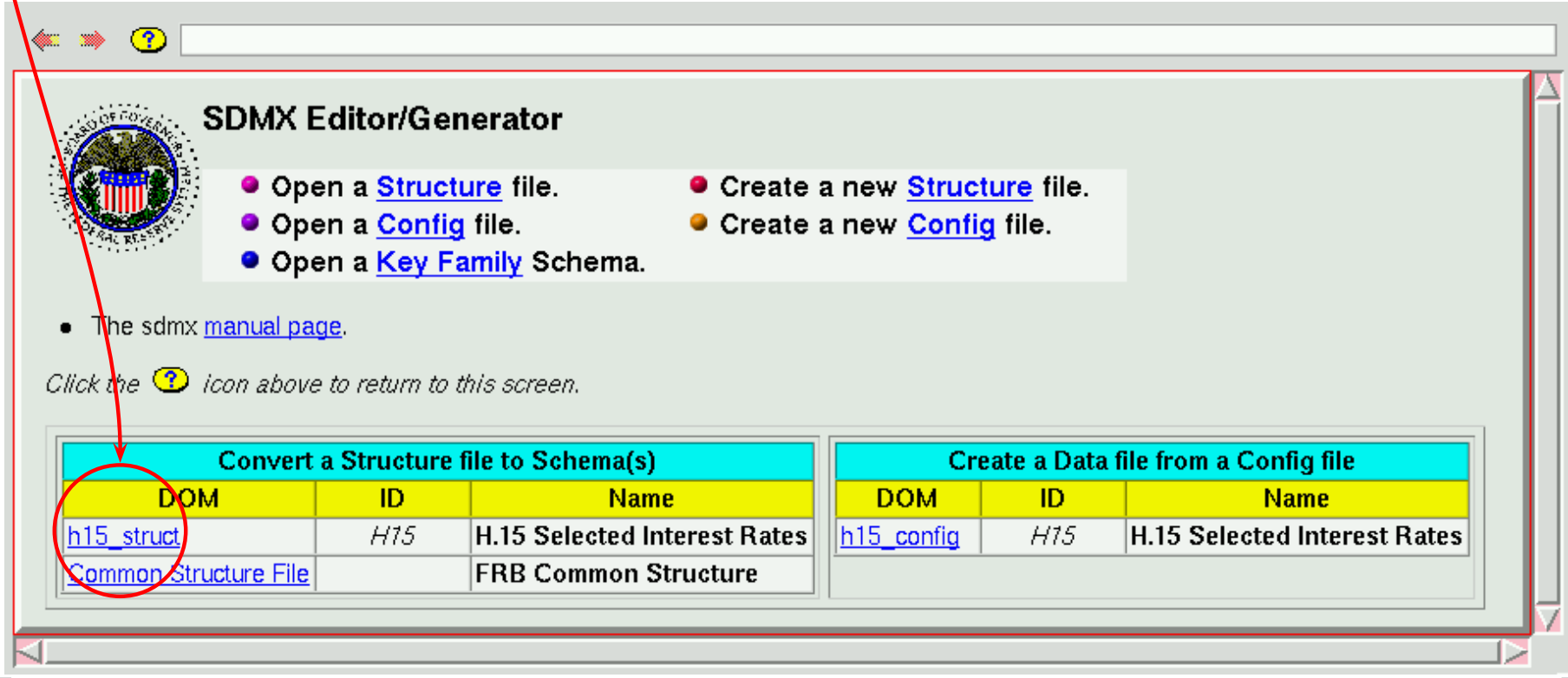
<a href="http://FanXE/build?struct&h15_struct.xml">



Special Links

<a href="http://FanXE/build?struct&h15_struct.xml">

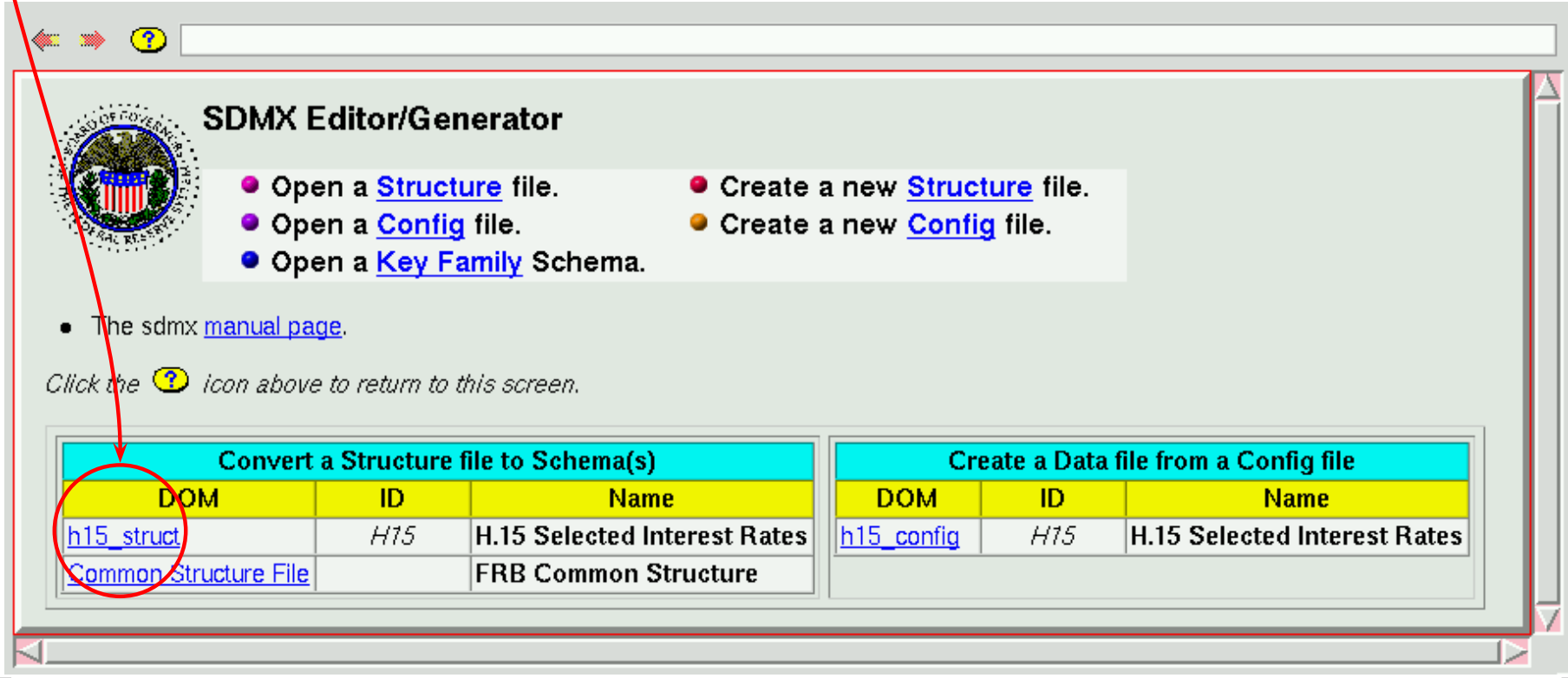
The FanXE hostname
links to public methods.



Special Links

<a href="http://FanXE/build?struct&h15_struct.xml">

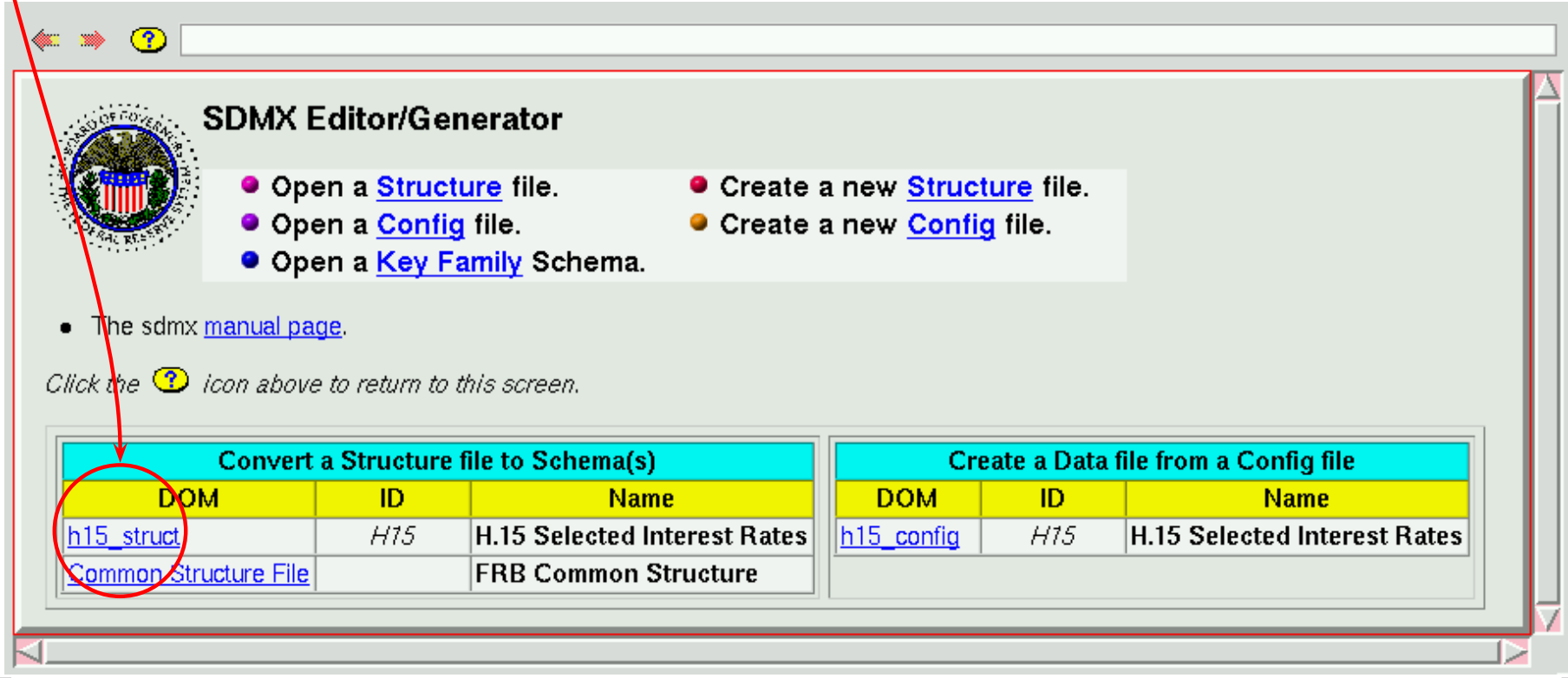
build is the method name.



Special Links

<a href="http://FanXE/build?struct&h15_struct.xml">

struct and h15_struct.xml are the arguments to the method.



Command Line Interface

- Shell script to instantiate object and execute a method.

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  - Usage:
    `fanxe [`*`CLASS OPTIONS --`*`] [method [`*`ARGS`*`]]`

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  - Usage:
    `fanxe [`*`CLASS OPTIONS --`*`] [method [`*`ARGS`*`]]`
  - Example:

```
fanxe -useRCS 0 -- \
  transform myfile.xml stylesheet.xsl \
  -parameters 'param1 v1 param2 v2'
```

Command Line Interface

- Shell script to instantiate object and execute a method.
  - Usage:
    `fanxe [`*`CLASS OPTIONS`* `--] [method [`*`ARGS`*`]]`
  - Example:

```
fanxe -useRCS 0 -- \
  transform myfile.xml stylesheet.xsl \
  -parameters 'param1 v1 param2 v2'
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  - Default method, if X is available, is GUI.

transform method

- Runs an XSLT transformation.

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- Runs an XSLT transformation.
- Uses **tdom**'s XSLT engine.
- Adds `xsl:document` support (writes to multiple files from a single transformation).
- Includes **FanXE** extended XSLT functions.
  - `fanxe:tcl` will execute a string in a safe interpreter.

transform method

- Runs an XSLT transformation.
- Uses **tdom**'s XSLT engine.
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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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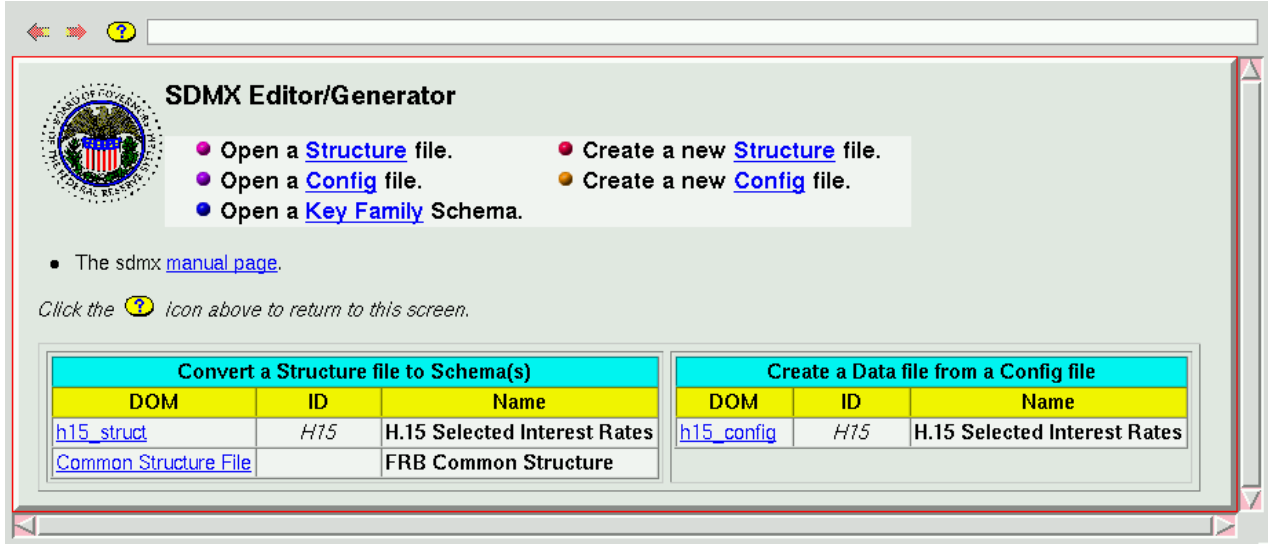
- GUI listens for `tableUpdated` and changes are applied immediately.

Application Examples

SDMX: Time Series XML Data



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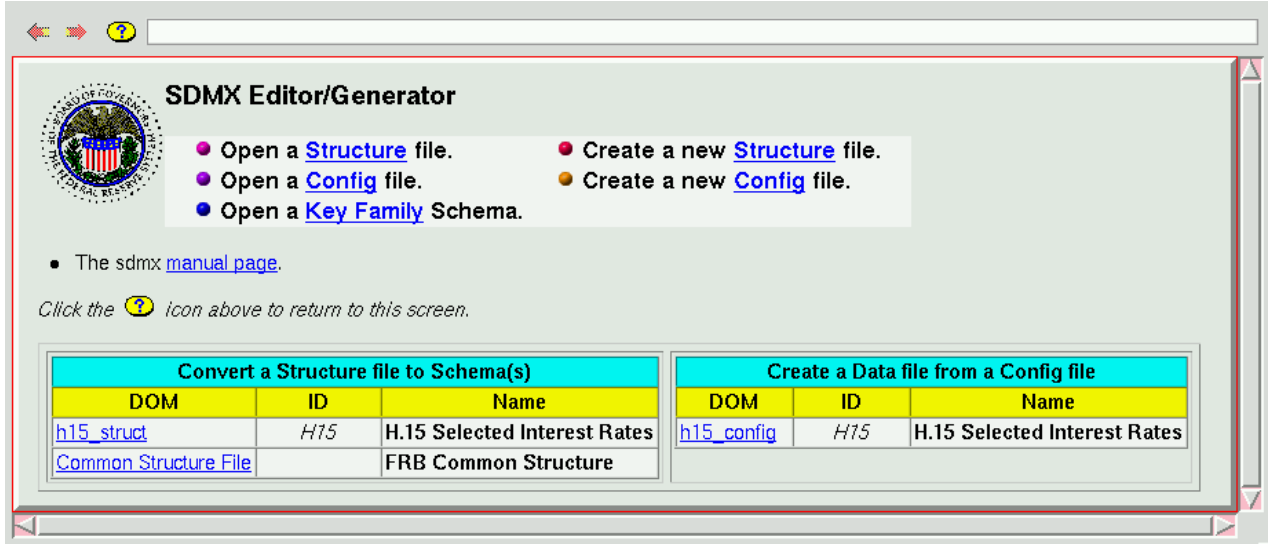

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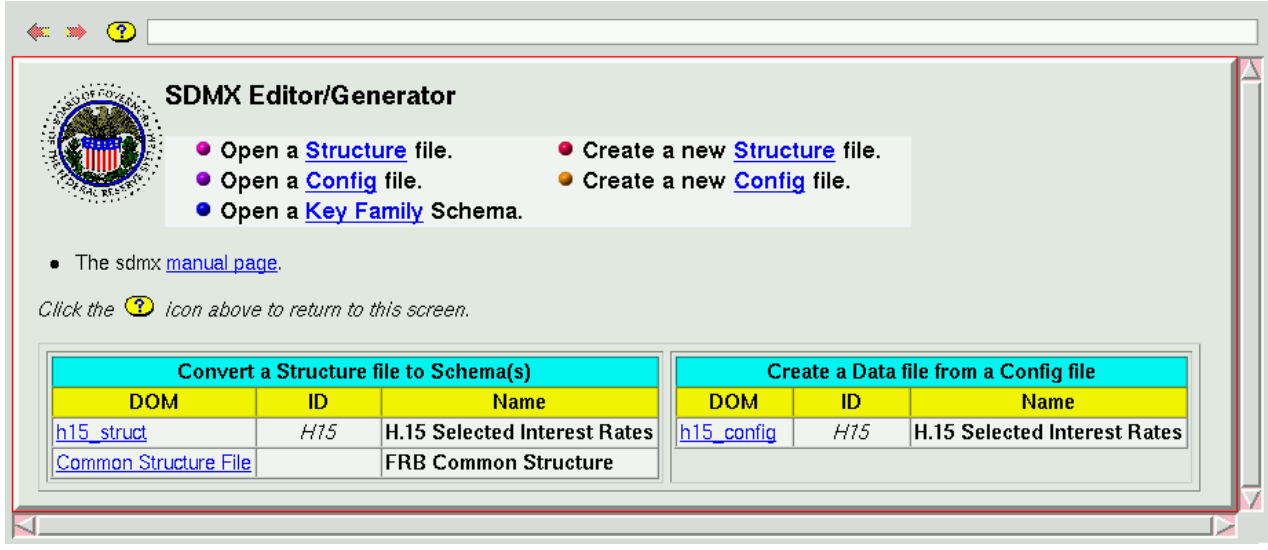

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- Files can be opened by cloning the structure of other XML documents defined in the configuration file.

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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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