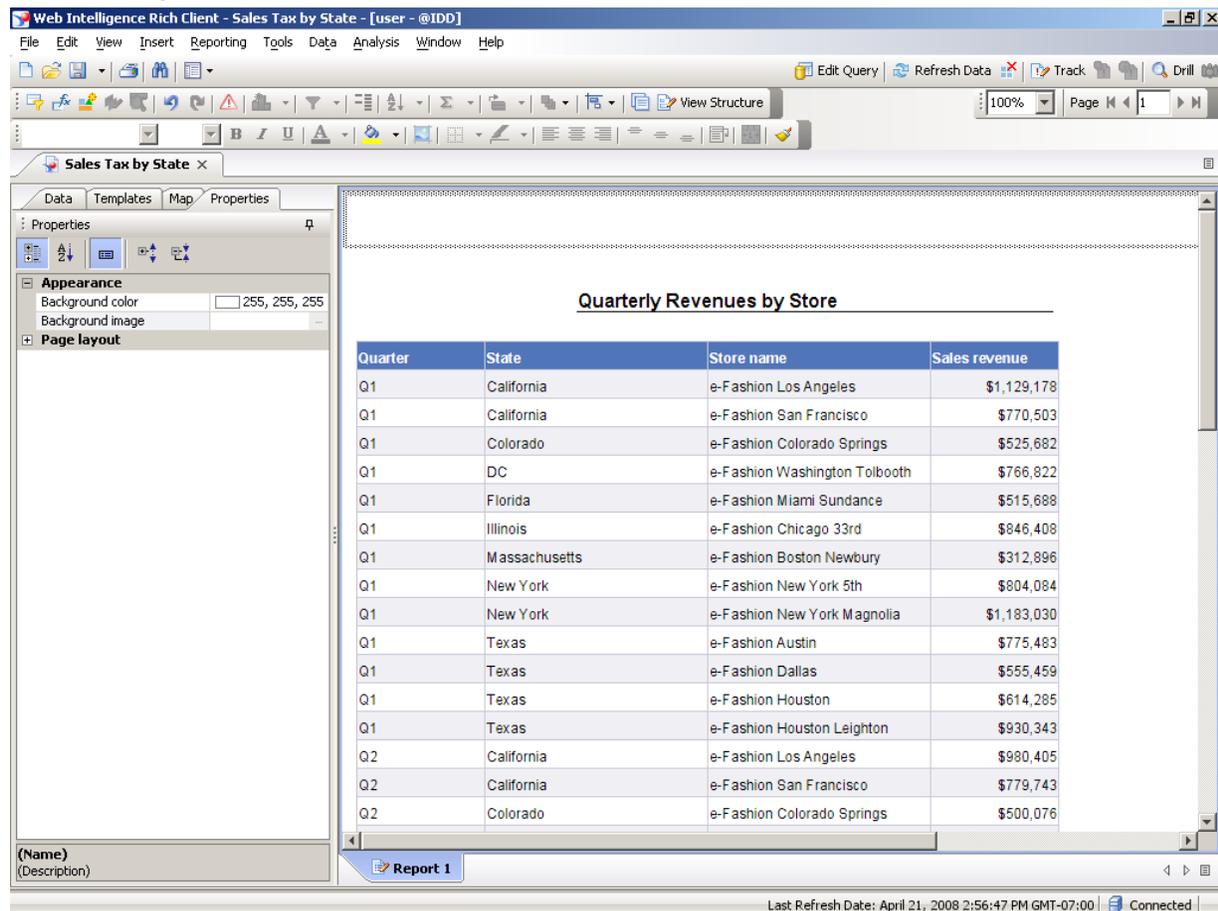


## Modifying the calculation behavior

### Procedure

1. Start the transaction using the menu path or transaction code.

### Web Intelligence Rich Client



The screenshot shows the Business Objects Web Intelligence Rich Client interface. The main window displays a report titled "Quarterly Revenues by Store". The report is a table with four columns: Quarter, State, Store name, and Sales revenue. The data is organized by quarter and state, listing various e-Fashion stores and their sales revenue for each quarter.

Quarter	State	Store name	Sales revenue
Q1	California	e-Fashion Los Angeles	\$1,129,178
Q1	California	e-Fashion San Francisco	\$770,503
Q1	Colorado	e-Fashion Colorado Springs	\$525,682
Q1	DC	e-Fashion Washington Tolbooth	\$766,822
Q1	Florida	e-Fashion Miami Sundance	\$515,688
Q1	Illinois	e-Fashion Chicago 33rd	\$846,408
Q1	Massachusetts	e-Fashion Boston Newbury	\$312,896
Q1	New York	e-Fashion New York 5th	\$804,084
Q1	New York	e-Fashion New York Magnolia	\$1,183,030
Q1	Texas	e-Fashion Austin	\$775,483
Q1	Texas	e-Fashion Dallas	\$555,459
Q1	Texas	e-Fashion Houston	\$614,285
Q1	Texas	e-Fashion Houston Leighton	\$930,343
Q2	California	e-Fashion Los Angeles	\$980,405
Q2	California	e-Fashion San Francisco	\$779,743
Q2	Colorado	e-Fashion Colorado Springs	\$500,076

The interface includes a menu bar (File, Edit, View, Insert, Reporting, Tools, Data, Analysis, Window, Help), a toolbar with various icons, and a properties panel on the left. The status bar at the bottom indicates the last refresh date as April 21, 2008 2:56:47 PM GMT-07:00 and shows a "Connected" status.

2. Click **Variable Editor** .

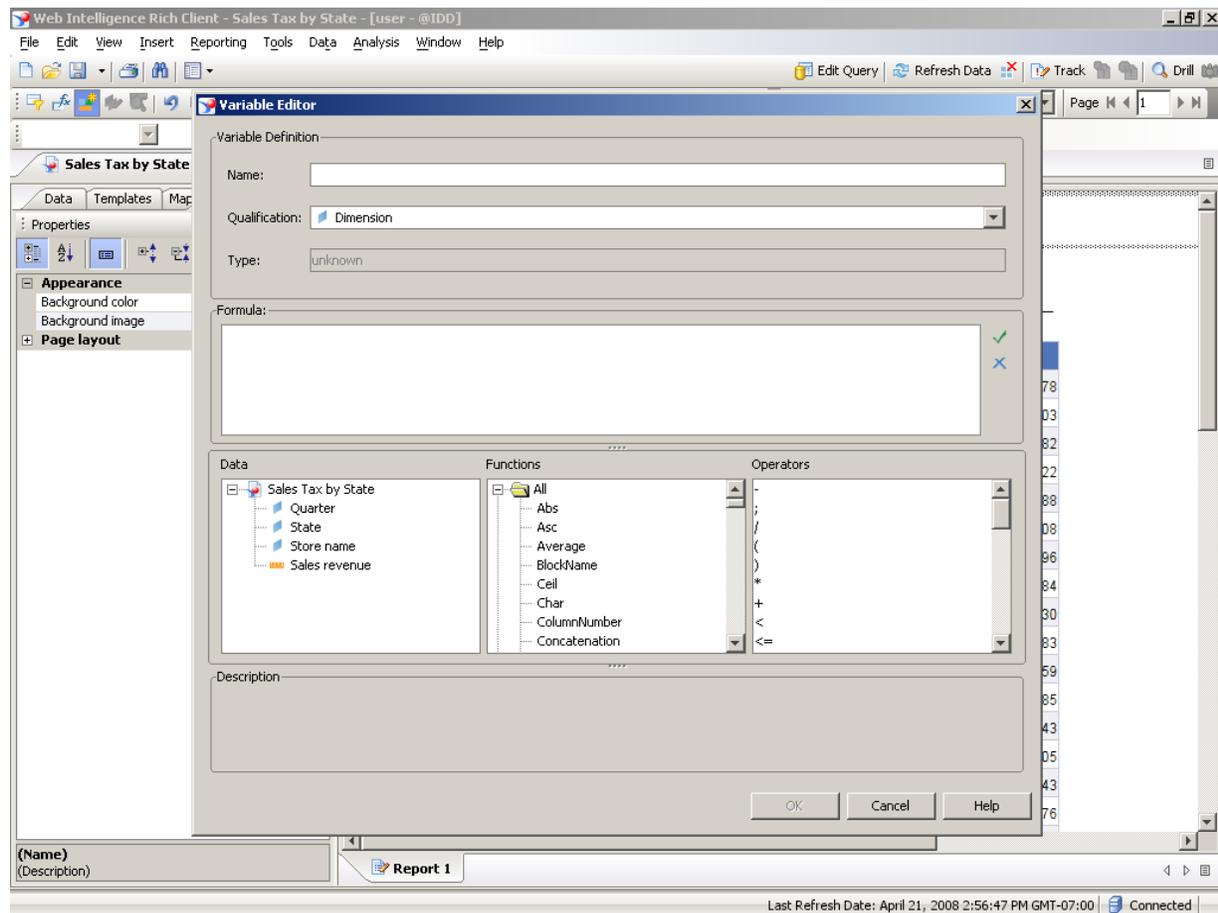
Using the eFashion universe, you want to display the sales tax paid by each store, and per quarter. You need to create a Sales Tax Paid variable that uses each store's revenue total to calculate sales tax based on the unique tax rate of the state where each store is located. It is necessary to create a variable to calculate this data

## Modifying the calculation behavior

because neither sales tax paid nor each state's sales tax rate is available as an object in the universe.

Create a variable called Sales Tax Paid.

### Variable Editor

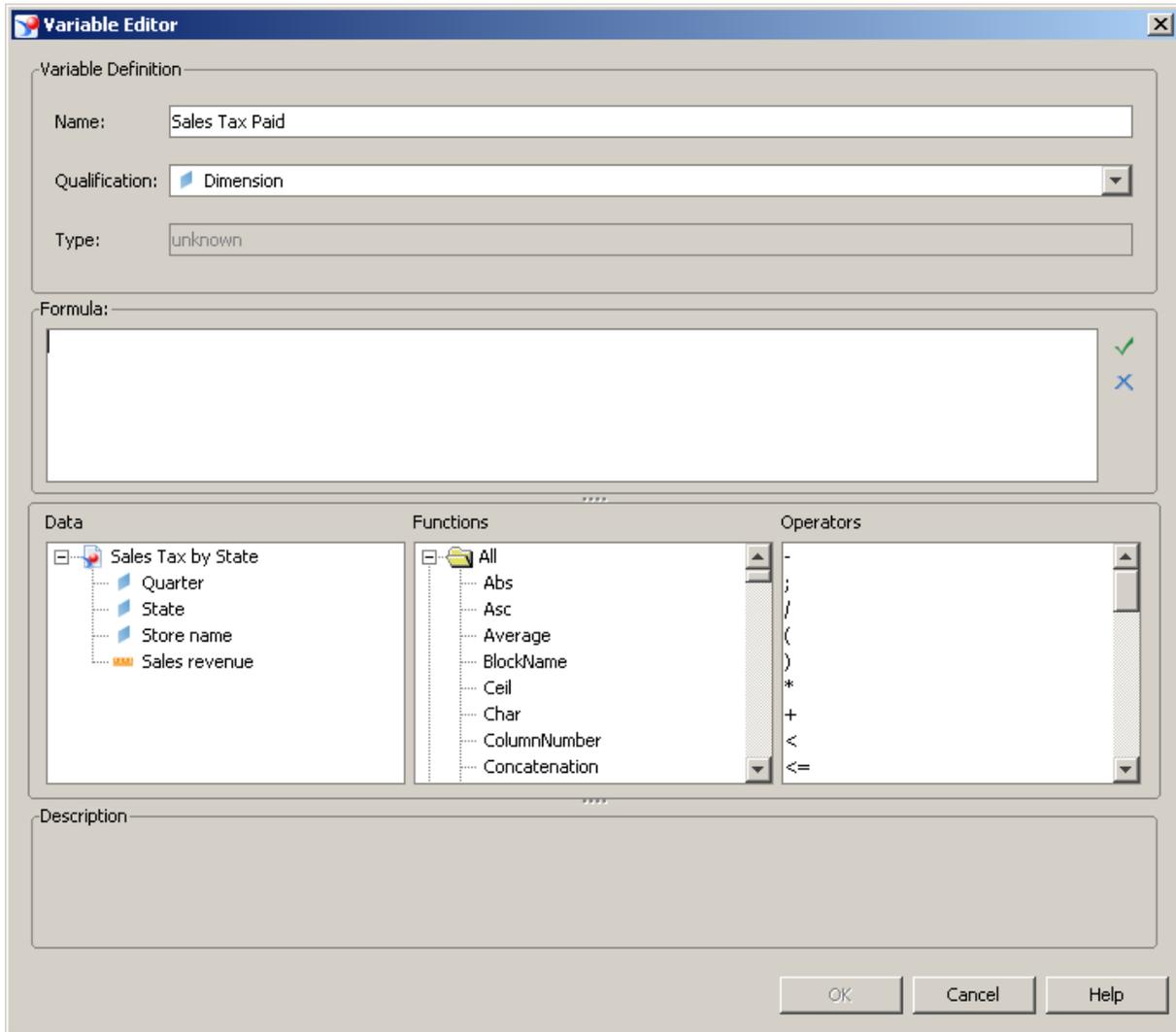


3. As required, complete/review the following fields:

Field	R/O/C	Description
	R	<b>Example:</b> Sales Tax Paid

## Modifying the calculation behavior

### Variable Editor



**Variable Editor**

Variable Definition

Name:

Qualification:

Type:

Formula:

Data

- Sales Tax by State
  - Quarter
  - State
  - Store name
  - Sales revenue

Functions

- All
- Abs
- Asc
- Average
- BlockName
- Ceil
- Char
- ColumnNumber
- Concatenation

Operators

- 
- ;
- /
- (
- )
- \*
- +
- <
- <=

Description

OK Cancel Help

- Click the **Formula:** textbox.

Use this variable formula:

```
=If([State] InList("California"; "New York"; "DC");
[Sales revenue]*0.085;
If([State] InList("Florida"; "Illinois");
```

## Modifying the calculation behavior

---

```
[Sales revenue]*0.075;  
[Sales revenue]*0.065))
```

**Note:** You will build this formula section by section.

5. Press "Return".

The purpose of the formula in this exercise is to apply the appropriate tax rate for each state. The formula begins with an If function to identify stores in California, New York or DC.

An If function includes three clauses:

- **A logical test** (which evaluates to true or false)
- **A clause to apply if the test result is true**
- **A clause to apply if the test result is false**

**=If(logical test; if true; if false)**

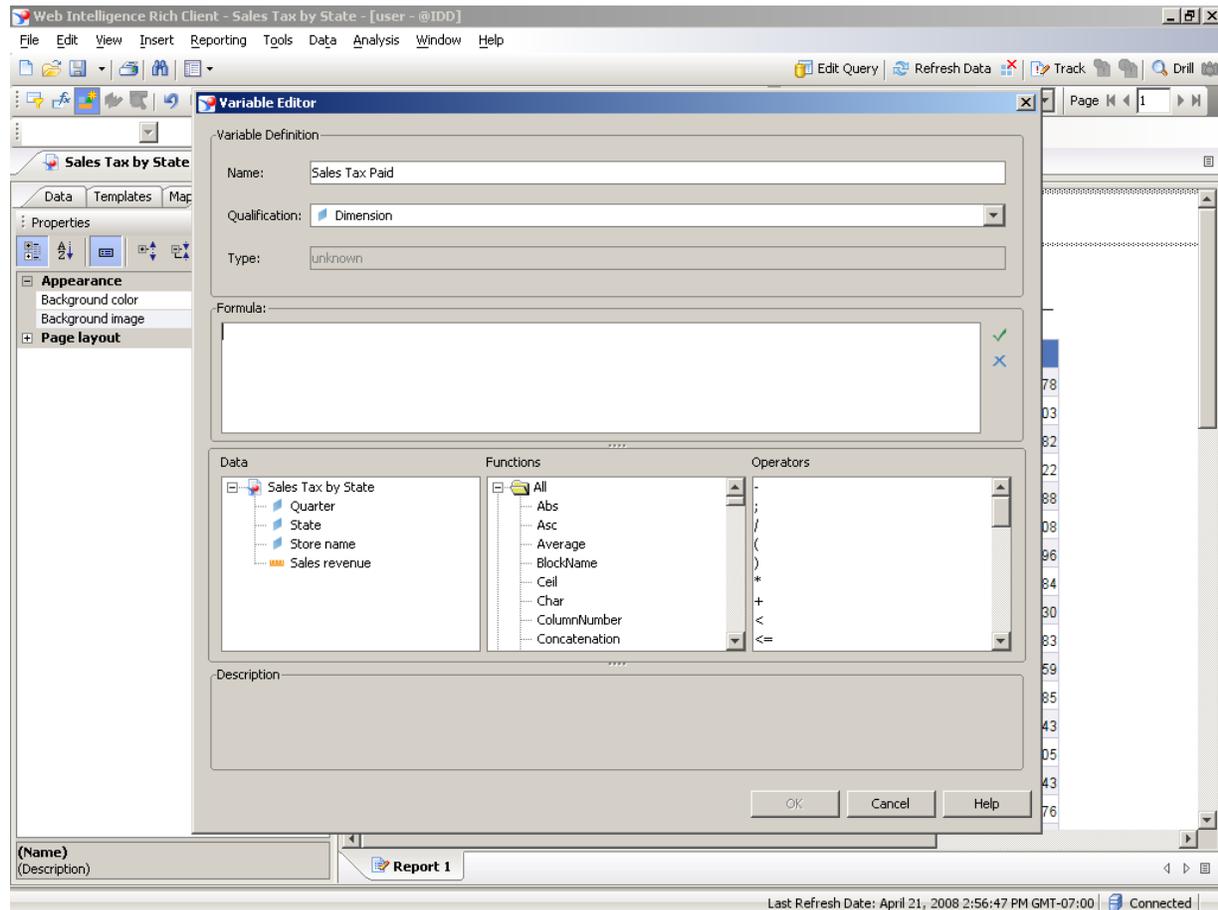
For example:

**=If([Sales revenue])>300000; "Manager Bonus"; "No Bonus")**

Press **[Enter]** to continue.

## Modifying the calculation behavior

### Variable Editor



6. As required, complete/review the following fields:

Field	R/O/C	Description
	R	<p><b>Example:</b></p> <p>=If([State] InList("California"; "New York"; "DC"));</p>

The first clause of the formula selects stores in California, New York, and DC. This is the logical test.

**Note:** In the application, you cannot press [Enter] until you have entered the

## Modifying the calculation behavior

complete formula. If you press [Enter] before you enter a complete formula you will get a formula syntax error message.

However, in this exercise, you will enter the formula one clause at a time.

Field	R/O/C	Description
	R	<b>Example:</b> [Sales revenue]*0.085;

The second clause calculates the sales tax of stores if they are in California, New York, or DC. This is the true clause.

Field	R/O/C	Description
	R	<b>Example:</b> If([State] InList("Florida"; "Illinois");

Stores outside of California, New York and DC have different tax rates: Stores in Florida and Illinois have a tax rate of 7.5% and all other states have a tax rate of 6.5%.

The third clause of the formula selects stores in Florida and Illinois. This clause of the formula is the false clause, so it is only applied if a store is not in California, New York, or DC.

The false clause in this example is a nested if formula with its own logical test, true and false clauses.

Field	R/O/C	Description
	R	<b>Example:</b> [Sales revenue]*0.075;

## Modifying the calculation behavior

The clause below is the true clause of the nested If. This clause calculates the sales tax for stores in Florida and Illinois.

Field	R/O/C	Description
	R	<p><b>Example:</b> [Sales revenue]* 0.065))</p>

The clause below is the false clause of the nested If. This clause calculates the sales tax for stores which are not in Florida and Illinois.

**Note:** Sales tax for stores in California, New York and DC have already been calculated. This (6.5%) is the default tax rate.

The formula ends with two closing brackets. One for each If statement.

11. Click the **Formula:** textbox.

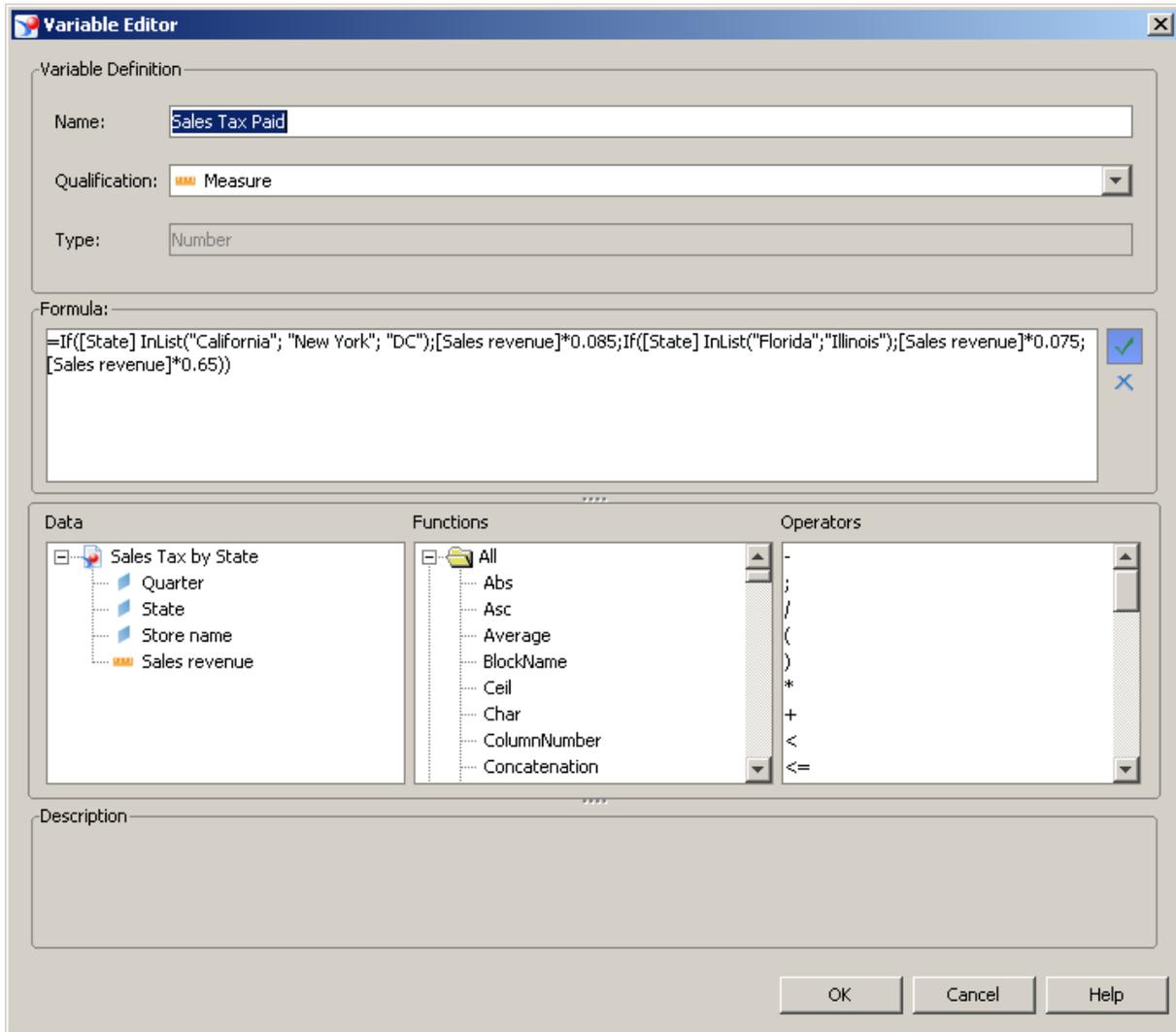
Examine the complete formula.

Ensure you can identify the different clauses of both if statements. You should be able to identify the logical tests, and the true and false clauses.

In addition, you should be able to identify the tax rates for each state.

## Modifying the calculation behavior

### Variable Editor



**Variable Editor**

Variable Definition

Name:

Qualification:

Type:

Formula:

```
=If([State] InList("California"; "New York"; "DC");[Sales revenue]*0.085;If([State] InList("Florida";"Illinois");[Sales revenue]*0.075; [Sales revenue]*0.65))
```

Data

- Sales Tax by State
  - Quarter
  - State
  - Store name
  - Sales revenue

Functions

- All
- Abs
- Asc
- Average
- BlockName
- Ceil
- Char
- ColumnNumber
- Concatenation

Operators

- 
- ;
- /
- (
- )
- \*
- +
- <
- <=

Description

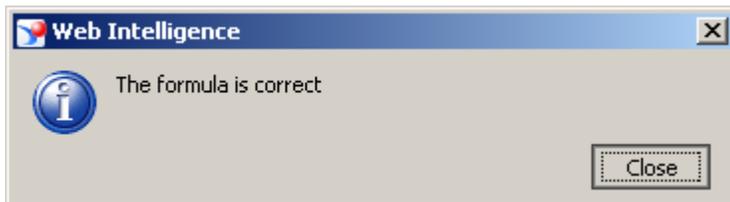
OK Cancel Help

- Click **Verify** .

**Note:** In the application the formula must be entered in a continuous line; that is, without pressing the Enter.

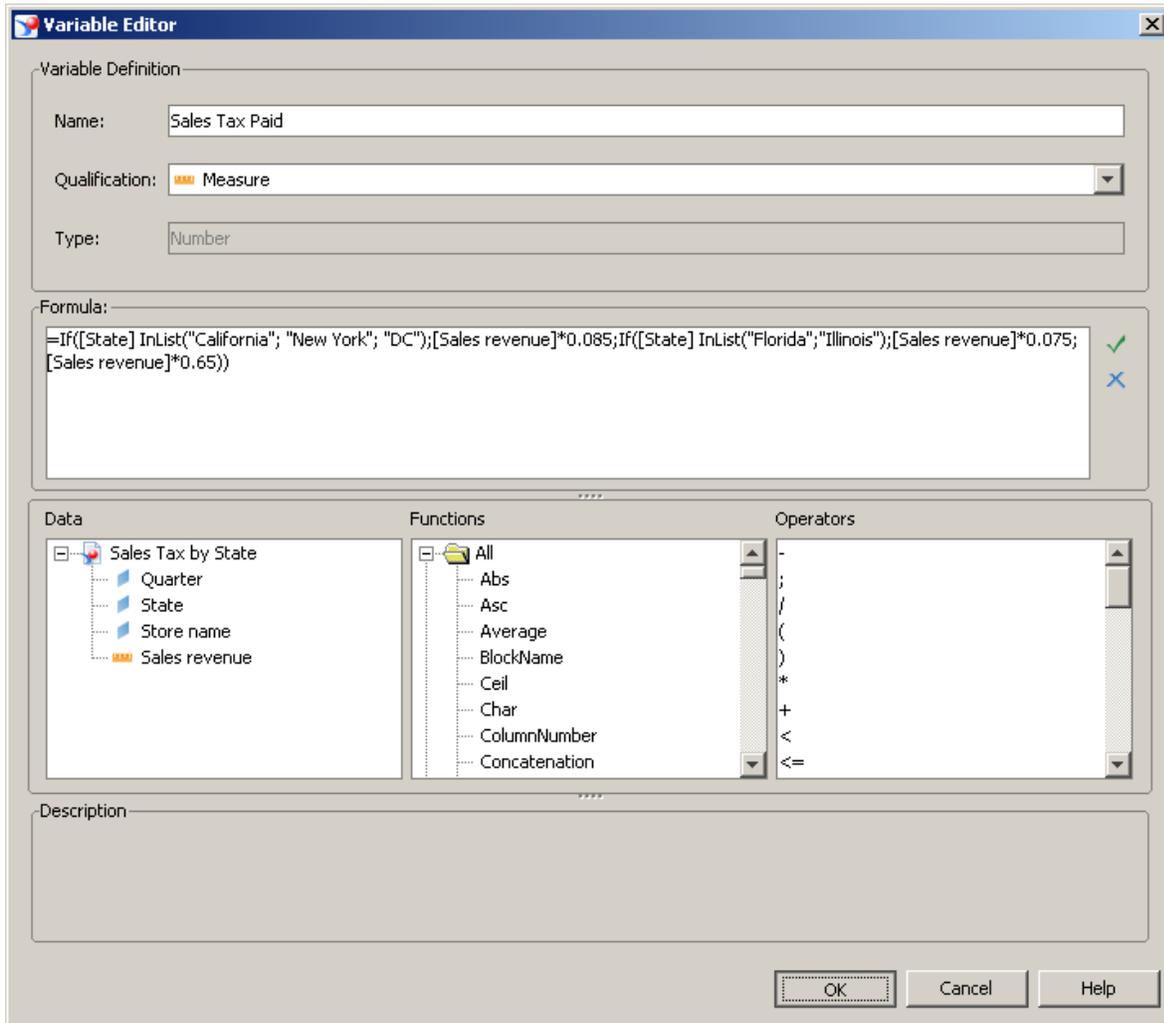
## Modifying the calculation behavior

### Web Intelligence



13. Click **Close**.

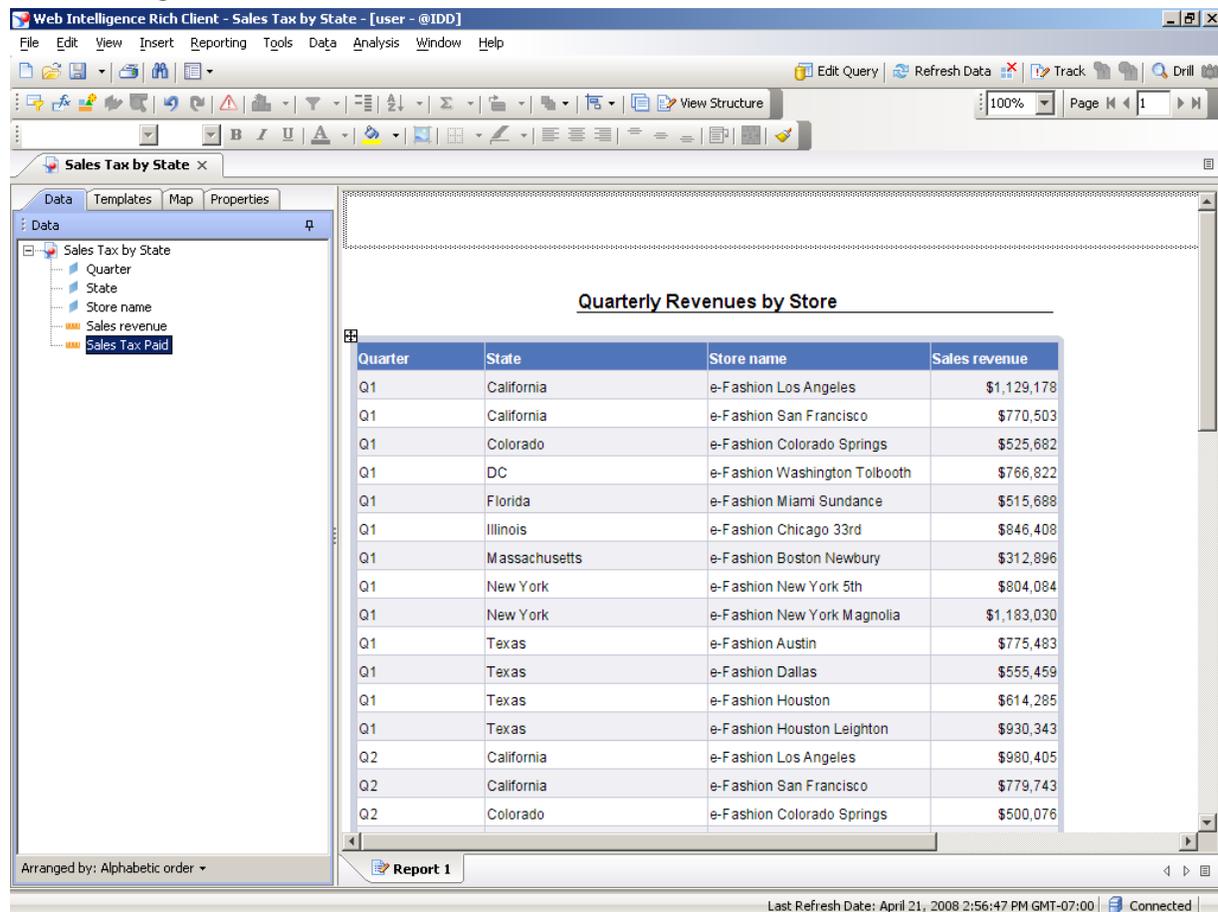
### Variable Editor



## Modifying the calculation behavior

- Click **OK**.

### Web Intelligence Rich Client



The screenshot shows the Business Objects Web Intelligence Rich Client interface. The main window displays a report titled "Quarterly Revenues by Store". The report is a table with the following data:

Quarter	State	Store name	Sales revenue
Q1	California	e-Fashion Los Angeles	\$1,129,178
Q1	California	e-Fashion San Francisco	\$770,503
Q1	Colorado	e-Fashion Colorado Springs	\$525,682
Q1	DC	e-Fashion Washington Tolbooth	\$766,822
Q1	Florida	e-Fashion Miami Sundance	\$515,688
Q1	Illinois	e-Fashion Chicago 33rd	\$846,408
Q1	Massachusetts	e-Fashion Boston Newbury	\$312,896
Q1	New York	e-Fashion New York 5th	\$804,084
Q1	New York	e-Fashion New York Magnolia	\$1,183,030
Q1	Texas	e-Fashion Austin	\$775,483
Q1	Texas	e-Fashion Dallas	\$555,459
Q1	Texas	e-Fashion Houston	\$614,285
Q1	Texas	e-Fashion Houston Leighton	\$930,343
Q2	California	e-Fashion Los Angeles	\$980,405
Q2	California	e-Fashion San Francisco	\$779,743
Q2	Colorado	e-Fashion Colorado Springs	\$500,076

The interface includes a menu bar (File, Edit, View, Insert, Reporting, Tools, Data, Analysis, Window, Help), a toolbar with various icons, and a data pane on the left showing the report structure. The status bar at the bottom indicates "Last Refresh Date: April 21, 2008 2:56:47 PM GMT-07:00" and "Connected".

- Drag the **Sales Tax Paid** measure to the right edge of the Sales revenue column header.

Insert the Sales Tax Paid variable to the right of the Sales revenue column.

- Click **an entry** in the Quarter column.

Insert a break on Quarter.

## Modifying the calculation behavior

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17. Click **Insert/Remove break** .

18. Press [Enter] to continue.

Remove the State column. In the application, you would right-click the State column. In the exercise the right mouse button has been pressed for you.  
Press **[Enter]** to continue.

19. Click **Remove Column**.

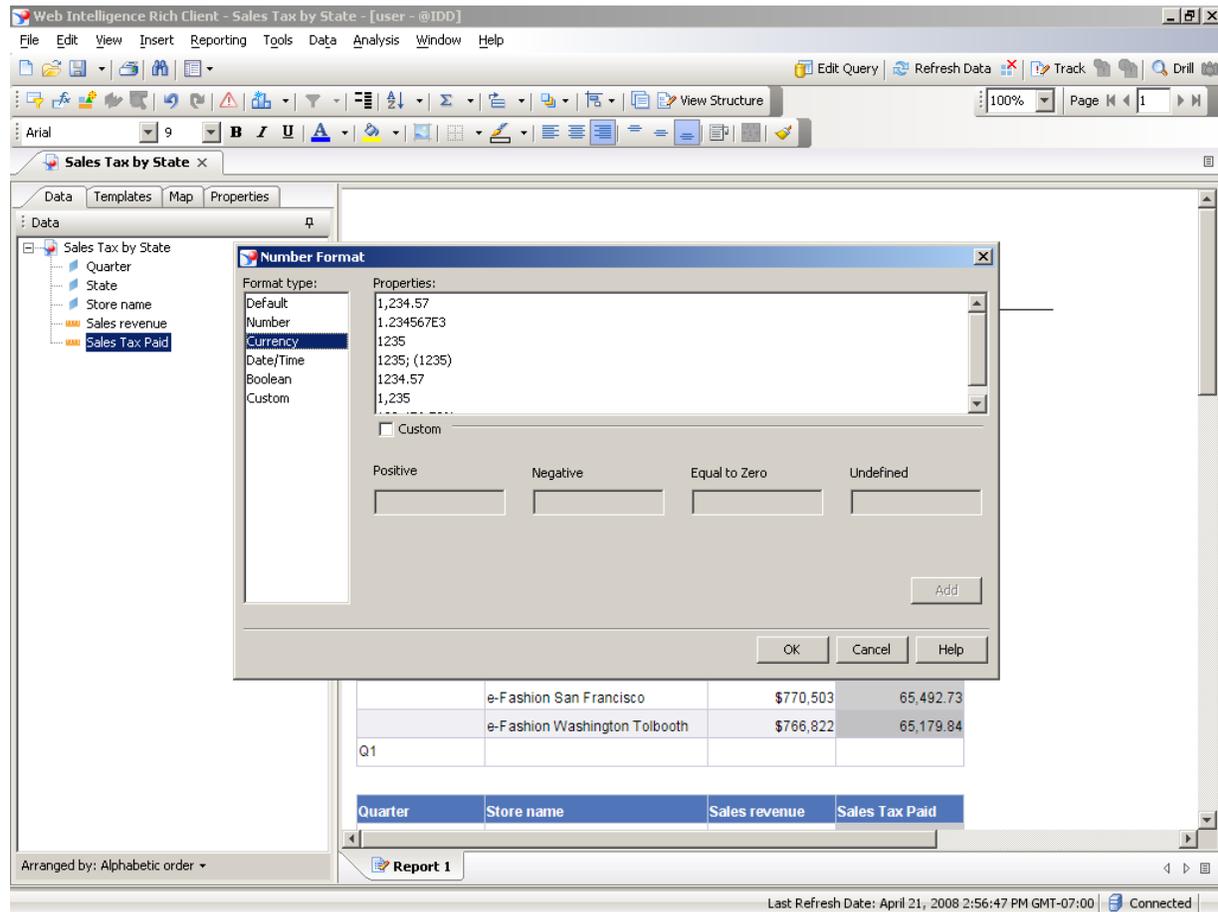
20. Press [Enter] to continue.

Format the Sales Tax Paid column as currency.  
In the application you would right-click the Sales Tax Paid column. In this exercise the right mouse button has been pressed for you.  
Press **[Enter]** to continue.

21. Click **Format Number...**

## Modifying the calculation behavior

### Number Format



The screenshot shows the Business Objects Web Intelligence Rich Client interface. A 'Number Format' dialog box is open, allowing the user to select a format type for the 'Sales Tax Paid' field. The 'Currency' format is selected. The dialog box includes a list of format types, a list of properties for the selected format, and options for handling positive, negative, and zero values.

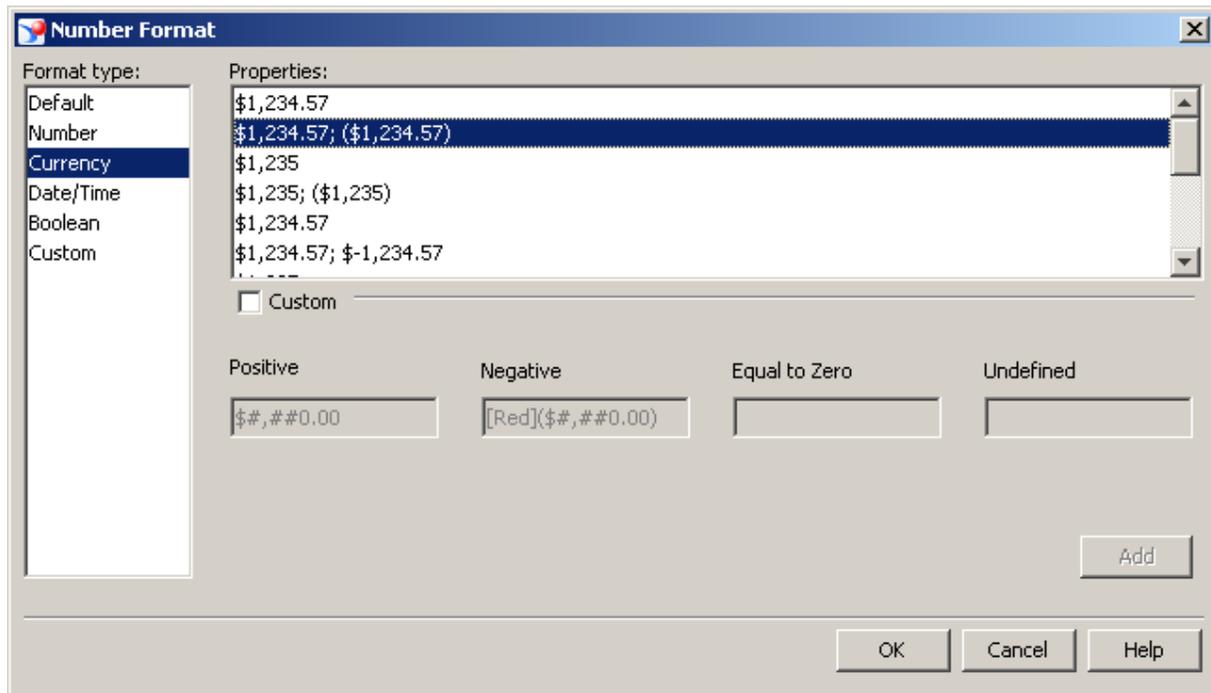
The background report table displays the following data:

Quarter	Store name	Sales revenue	Sales Tax Paid
	e-Fashion San Francisco	\$770,503	65,492.73
	e-Fashion Washington Tolbooth	\$766,822	65,179.84
Q1			

22. Click **Currency**.

## Modifying the calculation behavior

### Number Format



23. Click a currency number format.

24. Click **OK**.