

# Working with Filters

## Stratum.Viewer 6



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## **Definitions**

- [Axis Filter](#)
- [Display Column](#)
- [View Filter](#)

## Getting Started


### Access to Filtering

Your user profile level controls what you can do in terms of filtering levels, attribute relationships, measure items, and totals in views.

User Profile Level	Apply New Filters	Edit Existing Filters
Casual		x*
Advanced	x	x
View Administrator	x	x
Security Administrator	x	x


**\*Note:** Casual users can click an existing filter icon to change a filter. They will not see a Filter option when they right-click in the grid to access the grid pop-up menu.

### Introduction to Filtering

Filtering is a way of selecting the data that is most important to you. Filters can be associated with levels, measure items, totals, the overall view, and rows and columns. You can combine filters with sorts to achieve a view of data that best suits your business needs. A filter cue  displays when a filter has been applied. Click on that filter cue to review, edit, or remove the applied filter.

#### Level Filter

You can filter levels using members, user lists, named sets, and expressions. For example, you have a view listing RepBrokers and you want to only see three. You apply the member filter shown below.

View Filter		Actual Sales	Sales Amount	Budget Budget Amount Working	Budget Budget Amount Frozen
 RepBroker	RepBr Long Description				
300	Nicole Toscano		\$4,977,057,972	\$5,078,516,759	\$5,427,126,882
303	Michelle Knapp		\$383,687,140	\$391,842,595	\$418,143,748
315	Mary Lopez		\$474,781,894	\$479,040,355	\$509,894,987
<b>Grand Total</b>			<b>\$5,835,527,007</b>	<b>\$5,949,399,708</b>	<b>\$6,355,165,617</b>

## Measure Item Filter

You can filter individual measure items by selecting a filter operator and value. For example, you may have a Daily Sales Amount measure item but only want to include amounts greater than or equal to \$250,000. You would select the Daily Sales Amount measure and apply a filter of  $\geq 250000$ .

UPC Global Number	UPC Long Description	Daily Sales Amount Current Yr/Current Month	Daily Sales Units Current Yr/Current Month
<a href="#">0 - 02749 - 25408 - 6</a>	Asparagus	\$324,089	5,113
<a href="#">0 - 02749 - 99267 - 6</a>	Cherries, Bing	\$333,999	5,524
<a href="#">0 - 06403 - 92736 - 2</a>	Orange Juice Conc.	\$294,338	5,105
<a href="#">0 - 13800 - 30321 - 9</a>	Frozen Lasagna Dinner	\$592,291	7,641
<a href="#">0 - 13800 - 78934 - 9</a>	Meatloaf, Frozen	\$576,907	7,787
<a href="#">0 - 24000 - 12491 - 4</a>	Peach		
<a href="#">0 - 24000 - 12591 - 4</a>	Peach		
<a href="#">0 - 39484 - 92630 - 1</a>	Nave		
<a href="#">0 - 70606 - 02232 - 8</a>	Pork		
<a href="#">0 - 79453 - 09722 - 7</a>	Swee		

**MEASURE ITEM FILTER: DAILY SALES AMOUNT CURRENT YR/CURRENT MONTH** X

Operator:  Value:

OK Cancel

## Axis Filter

You can filter the row or column axis. Use this type of filter when you want to filter by multiple measure items or both measure items and attribute relationships. The below example has a filter applied to the rows. The only product data displayed meets the following filter criteria: sales less than \$2,000 and Product ABC Classification equal to B.

Ship-To Region	Product	Prod ABC Classification	Sales Amount Jan 2014 to Sep 2014	Sales Return Amount Jan 2014 to Sep 2014	Sales after Returns
<a href="#">50</a>	<a href="#">Cherry Filling 12 oz BR* 0A</a>	B	\$185	(\$419)	-\$234
<a href="#">50</a>	<a href="#">Pear Hlys LS 106 oz BR* 0A</a>	B	\$1,545	(\$978)	\$567
<a href="#">50</a>	<a href="#">Prunes Pitted 106 oz BR* 0A</a>	B	\$1,360	(\$647)	\$713
<a href="#">50</a>	<a href="#">Cherry Filling 12 oz BR* 0B</a>	B	\$370	(\$837)	-\$468
<a href="#">50</a>	<a href="#">Cherry Filling 12 oz BR* 0C</a>	B	\$203	(\$461)	-\$257
<a href="#">50</a>	<a href="#">Pear Hlys LS 106 oz BR* 0C</a>	B	\$1,699	(\$1,076)	\$623

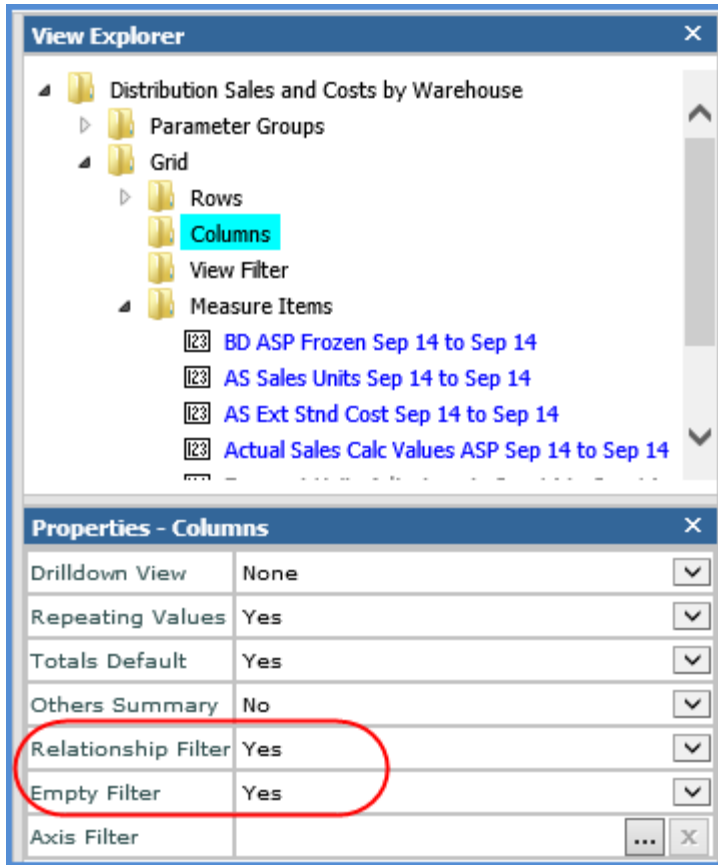
**EXPRESSION - ROWS** X

View Items and Functions: Hierarchies > Ship-To Region > Product > Product > Attribute Relationships > Prod Long Description, Prod ABC Classification

Expression: `[Measures].[Data17 (Sales Amount Jan 2014 to Sep 2014)] <2000 AND [Product].[Product].Properties("Prod ABC Classification") = "B"`

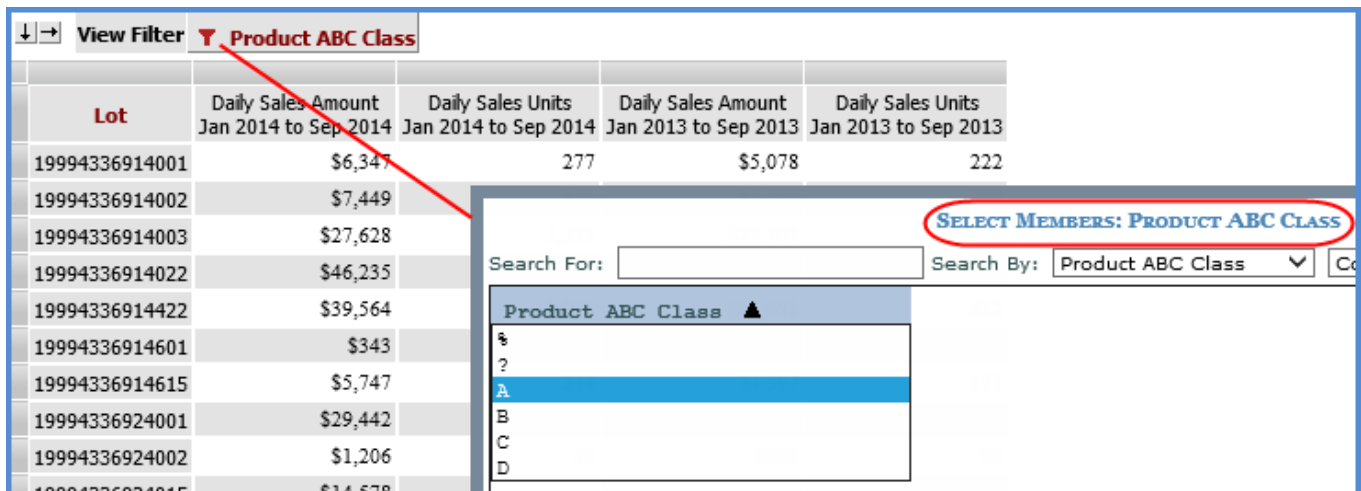
## Relationship and Empty Filter

You can filter rows and columns through their Relationship and Empty Filter properties. That type of filtering takes into consideration the existence of data or lack of data in the database given the levels and measure items for the view.





## View Filter


You can filter an overall view in relation to members of a particular level through the View Filter section. The data returned in the rest of the view will be just the data relevant to members specified by the View Filter. For example, you have a view listing Lot data, but you want to filter to include only Lot data pertaining to A products. You add the Product ABC Class level to the View Filter section and filter it by A products.



### Apply a Filter to Levels

1. Right-click the level in the grid and select Filter then Edit.
2. The [Select Filter Method window](#) displays and you can proceed in two ways:
  - Perform a quick filter by selecting Member List then using the field at the bottom of the window to specify the level members. Separate by semicolons. Refer to members by what's used for the level display text. For example, enter member values if the level display text is set to Value or enter member attribute relationships if the level display text is set to one of its attribute relationships.
  - Use filter windows to set up a filter. Select the filter type then click OK to access a relevant window:
    - **Member List** - the [Select](#) or [Advanced Select Members window](#) displays. Search for and select members then click OK.
    - **User List** - the [Select User List Filter window](#) displays. Use the search or filter  tools as aids in finding a list. Optionally click Show Details  after selecting a list to see more information about it before applying it as a filter. Click OK to apply the selected list as a filter.
    - **Named Set** - the [Select Named Set Filter window](#) displays. Select a named set and click OK.
    - **Expression** - the [Expression window](#) displays. Set up the filter expression and click OK.

OR

1. Double-click the level in view explorer to open its [Properties window](#).
2. Click the Browse button  next to the Filter field.
3. See Step 2 in the previous set of instructions.

### Apply a Filter to Measure Items

1. Right-click the measure item in the grid and select Filter then Edit.
2. Select the filter operator and enter a filter value in the [Measure Item Filter window](#).
3. Click OK.

OR

1. Double-click the measure item in view explorer to open its [Properties window](#).
2. Select the filter operator from the Filter drop-down list and enter a filter value in the field next to the list.

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**Note:** Use the first option if there are levels on the same axis as measure items.

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## Apply a Filter to Totals

1. Right-click the caption of a measure item in a Grand Total row or column, and select Filter then Edit.
2. Select the filter operator and enter a filter value in the [Measure Item Filter window](#).
3. Click OK.

## Apply a Relationship or Empty Filter

1. Double-click the Rows or Columns folder in view explorer. The [Rows](#) or [Columns](#) Properties window displays.
2. Adjust the Yes and No settings for the filter that you want to set up.

---

**Note:** In order for the Empty Filter property to be set to Yes, the Relationship Filter property must be set to Yes.

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## Apply a View Filter

Setting up a View Filter requires a level to be in the View Filter section and then applying a filter to that level. Skip to Step 2 if the level you want to use is already in the View Filter section.



1. Drag or drop the desired level(s) into the View Filter section of the grid or into the View Filter folder of view explorer.

---

**Note:** If the level already has a filter applied to it, the view will be filtered by it and you can skip Step 2.

---

OR



1. Right-click the View Filter section in the grid and select Edit then View Filter (or right-click the View Filter folder in view explorer and select Edit). Use the Edit window to select one or more hierarchies. Its level(s) will be added to the View Filter section.
2. Filter each level in the View Filter the same way you would filter a level in rows or columns. Right-click a level and select Filter then Edit. The [Select Filter Method window](#) displays and you can proceed in two ways:
  - Perform a quick filter by selecting Member List then using the field at the bottom of the window to specify the level members. Separate by semicolons. Refer to members by what's used for the level display text. For example, enter member values if the level display text is set to Value or enter member attribute relationships if the level display text is set to one of its attribute relationships.
  - Use filter windows to set up a filter. Select the filter type then click OK to access a relevant window:
    - **Member List** - the [Select](#) or [Advanced Select Members window](#) displays. Search for and select members then click OK.
    - **User List** - the [Select User List Filter window](#) displays. Use the search or filter  tools as aids in finding a list. Optionally click Show Details  after selecting a list to see more information about it before applying it as a filter. Click OK to apply the selected list as a filter.
    - **Named Set** - the [Select Named Set Filter window](#) displays. Select a named set and click OK.
    - **Expression** - the [Expression window](#) displays. Set up the filter expression and click OK.

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**Note:** Another way to access the Select Filter Method window is to double-click the level in view explorer. In the Properties window that displays, click the Browse button  next to the Filter field.

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## Apply an Axis Filter

1. Right-click the Rows  or Columns axis  icon (whichever axis you want to filter), and select Filter then Edit.
2. Use the [Expression window](#) that displays to set up the expression for the filter, and then click OK.

**OR**

1. Double-click the Rows or Columns folder in view explorer (whichever axis you want to filter). The Rows or Columns Properties window displays.
2. Click the Browse button  next to the Axis Filter field.
3. Use the Expression window that displays to set up the expression for the filter, and then click OK.

See also: [Example Expressions for Filtering an Axis](#) and [Axis Filter Behavior When Levels are on Opposite Axis](#).


## Tasks - Editing

### Edit Existing Filters

#### Axis Filters

1. Click the filter icon  next to the axis icon, either  for rows or  for columns.


**OR**

1. Double-click the Rows or Columns folder in view explorer, and click the Browse button  next to the Axis Filter field in the Rows or Columns Properties window.
2. Use the [Expression window](#) to edit the filter expression.

#### Level Filters

1. Click the filter icon  next to the level.

**OR**

1. Double-click the level in view explorer, and click the Browse button  next to the Filter field in its Properties window.



2. Use a quick filter or other options in the [Select Filter Method window](#) to edit the filter.
  - A quick filter can be performed by selecting Member List then using the field at the bottom of the window to specify the level members. Separate by semicolons. Refer to members by what's used for the level display text.
  - Adjustments can be made using specific filter windows by selecting an option and clicking OK to access the window.
    - **Member List** - adjust the members in the [Select](#) or [Advanced Select Members window](#), then click OK.
    - **User List** - select a list from the [Select User List Filter window](#), then click OK.
    - **Named Set** - select a named set from the [Select Named Set Filter window](#), then click OK.
    - **Expression** - adjust the filter expression in the Expression window, then click OK.

### **Measure Item Filters**

1. Click the filter icon  next to the measure item.
2. Use the [Measure Item Filter window](#) to edit the filter.

**OR**

1. Double-click the measure item in view explorer to open its Properties window.
2. Use the Filter properties to edit the filter operator and value.

### **Relationship or Empty Filters**


1. Double-click the Rows or Columns folder in view explorer. The Rows or Columns Properties window displays.
2. Adjust the Yes and No settings for the filter that you need to edit.

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**Note:** In order for the Empty Filter property to be Yes, the Relationship Filter property must be Yes.

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### **Total Filters**

1. Click the filter icon  next to the caption of the measure item in the Grand Total row or column.
2. Use the [Measure Item Filter window](#) to edit the filter.

### **Remove Filters**

#### **Remove Individual Filter**

Right-click the filtered object in the grid and select Filter then Remove.

**OR**

Double-click the object in view explorer to open its Properties window. For levels, select None from the Filter drop-down list. For measure items, select the blank option from the Filter drop-down list. For a row or columns axis, click the "X" button next to the Axis Filter field.

#### **Remove All Filters**

Right-click any filtered object in the grid (measure item, level, axis), and select Filter then Remove All.

# Examples

## Expressions for Rolling "N" Period Based Views

These examples show how to create period based views that display rolling "N" periods. This is done by creating a level filter on a time hierarchy. The time range property for the view in both examples was set to No.

The first view is a rolling 12 weeks. It has rows comprised of the two levels from the Year Weeks time hierarchy. The Weeks level has a Rolling "12" filter on it that calculates the current week and prior 11 weeks. The filter returns Week 38 back through Week 27 in this example.

View Name: <i>Rolling 12 Weeks for Sales</i>									
View Filter									
	<b>Company &gt;&gt;</b>	<b>100</b>							
	<b>Co Long Description</b>	Fresh to Market Foods, Inc							
	<b>RepBroker &gt;&gt;</b>	300		301		302			
	<b>RepBr Long Description</b>	Nicole Toscano		Patrick Hurley		Mark Fiedler		Mich	
▼ Year	▼ Weeks	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units
2014	Week 38	\$37,500,634	786,436	\$2,456,915	42,399	\$6,981,694	121,890	\$	
	Week 37	\$46,125,781	1,769,482	\$3,022,006	95,398	\$8,587,484	274,252	\$	
	Week 36	\$65,854,480	1,391,916	\$4,083,679	73,901	\$11,657,521	203,782	\$	
	Week 35	\$25,234,922	605,479	\$1,447,819	31,502	\$4,161,486	81,892	\$	
	Week 34	\$28,554,418	1,362,328	\$1,639,609	70,881	\$4,708,660	184,257	\$	
	Week 33	\$28,353,845	1,453,150	\$1,626,763	75,606	\$4,675,827	196,541	\$	
	Week 32	\$28,836,934	605,479	\$1,653,469	31,502	\$4,747,902	81,892	\$	
	Week 31	\$57,479,261	1,226,362	\$4,026,631	67,511	\$10,257,370	178,545	\$	
	Week 30	\$29,125,416	620,883	\$2,399,867	36,009	\$5,581,544	96,653	\$	
	Week 29	\$20,096,537	1,490,120	\$1,655,909	86,420	\$3,851,265	231,966	\$	
	Week 28	\$29,125,416	620,883	\$2,399,867	36,009	\$5,581,544	96,653	\$	
	Week 27	\$54,362,560	1,145,877	\$4,122,783	63,670	\$10,683,421	184,963	\$	
	<b>2014 Total</b>	<b>\$450,650,203</b>	<b>13,078,395</b>	<b>\$30,535,318</b>	<b>710,808</b>	<b>\$81,475,717</b>	<b>1,933,285</b>	<b>\$</b>	<b>\$</b>
<b>Grand Total</b>		<b>\$450,650,203</b>	<b>13,078,395</b>	<b>\$30,535,318</b>	<b>710,808</b>	<b>\$81,475,717</b>	<b>1,933,285</b>	<b>\$</b>	<b>\$</b>

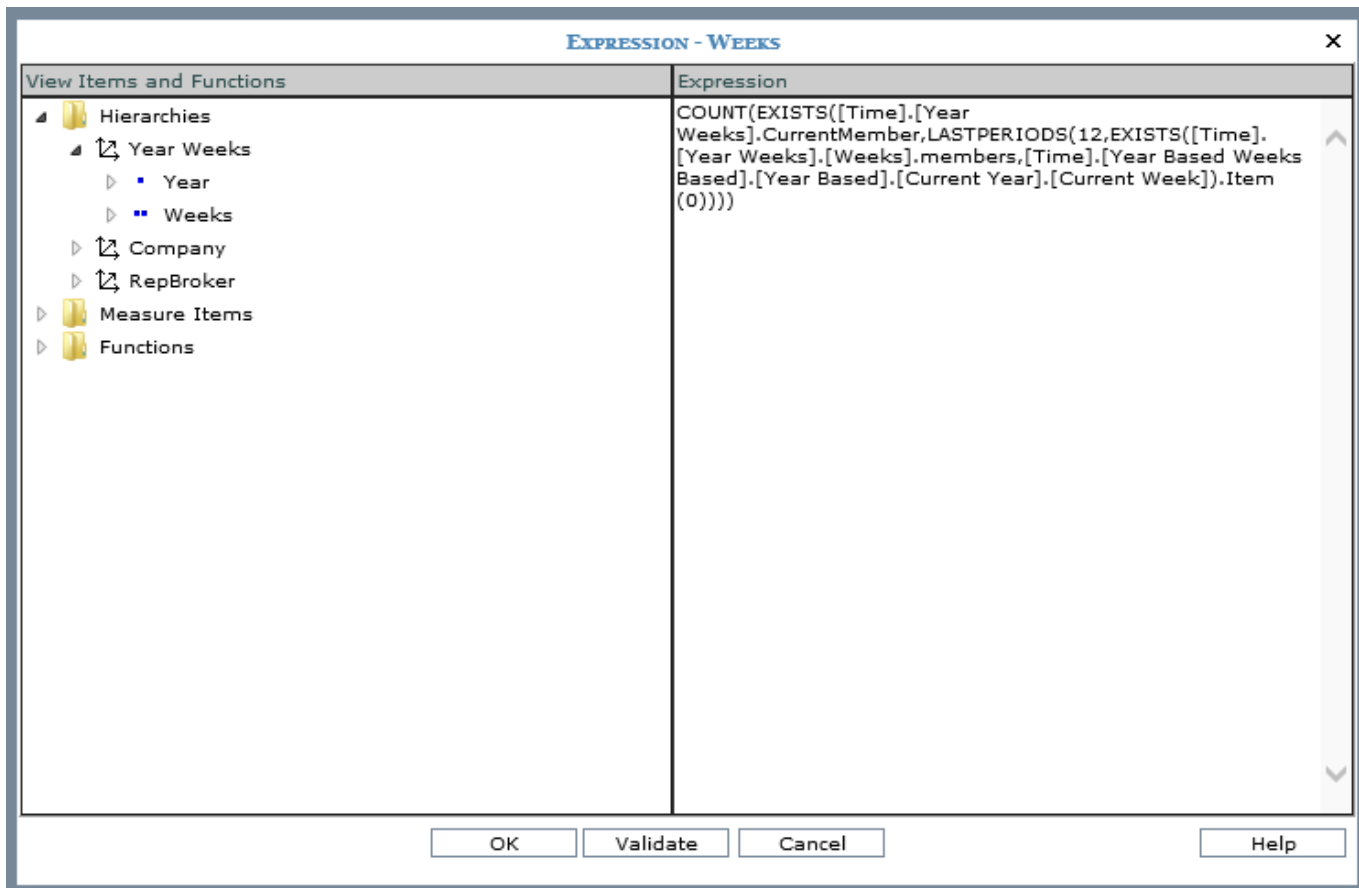
**View Explorer**

- Rolling 12 Weeks for Sales
  - Parameter Groups
  - Grid
    - Rows
      - Year Weeks
        - Year
        - Weeks
- Columns
  - Company
  - RepBroker
- View Filter
- Measure Items
  - Actual Sales Sales Amount
  - Actual Sales Sales Units
- Presentation
- Charts

The expression for the level filter is:

```
COUNT(EXISTS([Time].[Year Weeks].CurrentMember, LASTPERIODS(12, EXISTS([Time].[Year Weeks].[Weeks].members, [Time].[Year Based Weeks Based].[Year Based].[Current Year].[Current Week]).Item(0))))
```

This expression uses the Year Based Weeks Based hierarchy to determine the Current Week, Current Year.



A simple change to the expression changes the view to a rolling 52 weeks. Change the 12 in the expression to 52. It will calculate the current week and prior 51 weeks.

COUNT(EXISTS([Time].[Year Weeks].CurrentMember, LASTPERIODS(52, EXISTS([Time].[Year Weeks].[Weeks].members, [Time].[Year Based Weeks Based].[Year Based].[Current Year].[Current Week]).Item(0))))

Here is the refreshed view after making that change. The filter returns Week 38 of 2014 through Week 39 of 2013.

Company >>		100						
Co Long Description		Fresh to Market Foods, Inc						
RepBroker >>		300		301		302		303
RepBr Long Description		Nicole Toscano		Patrick Hurley		Mark Fiedler		Michelle Kn
▼ Year	▼ ↑ Weeks	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount
<a href="#">2014</a>	Week 38	\$37,500,634	786,436	\$2,456,915	42,399	\$6,981,694	121,890	\$3,009,...
	Week 37	\$46,125,781	1,769,482	\$3,022,006	95,398	\$8,587,484	274,252	\$3,701,...
	Week 36	\$65,854,480	1,391,916	\$4,083,679	73,901	\$11,657,521	203,782	\$5,436,...
	Week 35	\$25,234,922	605,479	\$1,447,819	31,502	\$4,161,486	81,892	\$2,159,...
	Week 34	\$28,554,418	1,362,328	\$1,639,609	70,881	\$4,708,660	184,257	\$2,442,...
	Week 33	\$28,353,845	1,453,150	\$1,736,763	75,606	\$4,675,827	196,541	\$2,426,...
	Week 6	\$22,877,223	479,674	\$2,331,556	22,556	\$4,189,877	76,470	\$1,411,...
	Week 5	\$48,783,399	1,008,329	\$2,751,111	50,302	\$8,322,154	151,923	\$3,010,...
	Week 4	\$25,906,067	528,655	\$1,494,091	27,466	\$4,132,277	75,453	\$1,591,...
	Week 3	\$25,906,067	528,655	\$1,494,091	27,466	\$4,132,277	75,453	\$1,591,...
	Week 2	\$25,906,067	528,655	\$1,494,091	27,466	\$4,132,277	75,453	\$1,591,...
	Week 1	\$39,534,325	801,316	\$2,394,257	41,991	\$7,370,596	126,292	\$2,688,...
	<b>2014 Total</b>	<b>\$1,174,876,032</b>	<b>30,041,048</b>	<b>\$76,265,834</b>	<b>1,619,405</b>	<b>\$207,724,492</b>	<b>4,500,057</b>	<b>\$88,943,0...</b>
<a href="#">2013</a>	Week 52	\$13,628,258	272,662	\$900,166	14,525	\$3,238,319	50,839	\$1,096,...
	Week 51	\$13,628,258	272,662	\$900,166	14,525	\$3,238,319	50,839	\$1,096,...
	Week 50	\$13,628,258	272,662	\$900,166	14,525	\$3,238,319	50,839	\$1,096,...
	Week 49	\$13,628,258	272,662	\$900,166	14,525	\$3,238,319	50,839	\$1,096,...
	Week 48	\$23,706,682	471,237	\$1,916,347	33,655	\$4,924,612	79,136	\$1,773,...
	Week 47	\$23,706,682	471,237	\$1,916,347	33,655	\$4,924,612	79,136	\$1,773,...
	Week 46	\$23,706,682	471,237	\$1,916,347	33,655	\$4,924,612	79,136	\$1,773,...
	Week 45	\$23,706,682	471,237	\$1,916,347	33,655	\$4,924,612	79,136	\$1,773,...
	Week 44	\$48,523,380	961,223	\$4,342,602	68,863	\$10,599,859	170,432	\$4,258,...
	Week 43	\$24,816,698	489,986	\$2,426,255	35,209	\$5,675,247	91,297	\$2,485,...
	Week 42	\$24,816,698	489,986	\$2,426,255	35,209	\$5,675,247	91,297	\$2,485,...
	Week 41	\$24,816,698	489,986	\$2,426,255	35,209	\$5,675,247	91,297	\$2,485,...
	Week 40	\$68,146,075	1,395,716	\$6,152,394	96,903	\$13,375,194	231,045	\$5,918,...
	Week 39	\$43,329,377	905,730	\$3,726,139	61,695	\$7,699,948	139,748	\$3,433,...
	<b>2013 Total</b>	<b>\$383,788,684</b>	<b>7,708,222</b>	<b>\$32,765,950</b>	<b>525,807</b>	<b>\$81,352,467</b>	<b>1,335,014</b>	<b>\$32,548,...</b>
<b>Grand Total</b>		<b>\$1,558,664,716</b>	<b>37,749,270</b>	<b>\$109,031,784</b>	<b>2,145,212</b>	<b>\$289,076,959</b>	<b>5,835,071</b>	<b>\$121,491,...</b>

If you want to see rolling periods in the future, use a negative number for the LASTPERIODS part of the expression. Here is the expression when the 52 is changed to -52. It will calculate the current week and next 51 weeks.

```
COUNT(EXISTS([Time].[Year Weeks].CurrentMember,LASTPERIODS(-52,EXISTS([Time].[Year Weeks].[Weeks].members,[Time].[Year Based Weeks Based].[Year Based].[Current Year].[Current Week]).Item(0))))
```

Here is the refreshed view after making that change. The filter returns Week 37 of 2015 through Week 38 of 2014. The future weeks for actual sales do not have data yet, so those cells are empty in the view. This type of filter would be useful in views that contain measures that have anticipated future data, such as budget or forecast measures.

<b>Company &gt;&gt;</b>		<b>100</b>							
<b>Co Long Description</b>		Fresh to Market Foods, Inc							
<b>RepBroker &gt;&gt;</b>		<b>300</b>		<b>301</b>		<b>302</b>		<b>303</b>	
<b>RepBr Long Description</b>		Nicole Toscano		Patrick Hurley		Mark Fiedler		Michelle Knapp	
<b>▼ Year</b>	<b>▼ Weeks</b>	Actual Sales	Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount
<b>2015</b>	Week 37								
	Week 36								
	Week 35								
	Week 34								
	Week 33								
	Week 32								
	Week 5								
	Week 4								
	Week 3								
	Week 2								
	Week 1								
	<b>2015 Total</b>								
<b>2014</b>	Week 52								
	Week 51								
	Week 50								
	Week 49								
	Week 48								
	Week 47								
	Week 46								
	Week 45								
	Week 44								
	Week 43								
	Week 42								
	Week 41								
	Week 40	\$37,500,634	786,436	\$2,456,915	42,399	\$6,981,694	121,890	\$3,009,195	4
	Week 39	\$37,500,634	786,436	\$2,456,915	42,399	\$6,981,694	121,890	\$3,009,195	4
	Week 38	\$37,500,634	786,436	\$2,456,915	42,399	\$6,981,694	121,890	\$3,009,195	4
	<b>2014 Total</b>	<b>\$112,501,903</b>	<b>2,359,309</b>	<b>\$7,370,746</b>	<b>127,197</b>	<b>\$20,945,082</b>	<b>365,669</b>	<b>\$9,027,586</b>	<b>13</b>
<b>Grand Total</b>		<b>\$112,501,903</b>	<b>2,359,309</b>	<b>\$7,370,746</b>	<b>127,197</b>	<b>\$20,945,082</b>	<b>365,669</b>	<b>\$9,027,586</b>	<b>13</b>

## Expressions for Filtering Levels

Expression filters that reference member values and attribute relationships were used to filter levels in the following examples. The levels referenced in the filters need to be visible in the view in order for the filters to impact the view.

- [Single Member in Expression](#)
- [Multiple Members in Expression](#)
- [Attribute Relationships in Expression](#)

---

**Note:** These same types of expressions can be used when creating dynamic user lists.

---

### Single Member in Expression

This expression returns Customer Sold-To members with values greater than 150280. You can adjust the filter quickly to return different results by changing out the > symbol in the expression for other symbols (such as <) or by changing the "150280" in the expression to a different value.

[Customer Sold-To].[Customer Sold-To].CurrentMember.Name > "150280"

View Name: <i>Expression Filter with Member</i>							
View Filter							
	<b>Product Brand &gt;&gt;</b>	<a href="#">001</a>					<a href="#">002</a>
	<b>PBrnd Long Description</b>	Tip Top					Dew Dr
<b>Customer Sold-To</b>	<b>SldTo Long Description</b>	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Amount Jan 2014 to Sep 2014	YTD % of Total	Actual Sales Sales Units Sep 2014 to Sep 2014	Actual Sales Sales Amount Sep 2014 to Sep 2014	Actual S Sales U Jan 2014 to Sep 2014
<a href="#">150290</a>	Montelissi Distribution	43,082	\$2,462,797	10%	5,130	\$319,989	43,082
<a href="#">150300</a>	Auburn Providers	43,387	\$2,658,087	10%			69,469
<a href="#">150310</a>	Maple Tree Foods	36,752	\$2,266,995	9%	12,409	\$797,832	69,469
<a href="#">150320</a>	Quebec Foods	30,795	\$1,653,760	6%	5,846	\$383,155	44,614
<a href="#">150330</a>	Canadian Imports	37,630	\$2,453,227	9%	5,697	\$382,779	87,103
<a href="#">150340</a>	Alberta Foods	41,301	\$2,415,657	9%			69,469
<a href="#">150350</a>	Chicago's Finest	54,234	\$3,468,513	13%	11,812	\$782,800	34,652
<a href="#">150360</a>	St. Louis Distributors	41,581	\$2,296,830	9%	6,085	\$374,624	41,581
<a href="#">150370</a>	Southwest Foods	34,992	\$2,080,132	8%	17,718	\$1,141,874	44,710
<a href="#">150380</a>	Packingham Foods	50,805	\$2,910,259	11%	5,816	\$384,567	72,581
<a href="#">150390</a>	Pacific Providers	23,249	\$1,205,925	5%			15,223
<b>Grand Total</b>		<b>437,809</b>	<b>\$25,872,183</b>	<b>100%</b>	<b>70,514</b>	<b>\$4,567,621</b>	<b>594,844</b>

### Multiple Members in Expression

This expression filter returns Customer Sold-To members in a range that is greater than or equal to 150280 and less than or equal to 150350.

[Customer Sold-To].[Customer Sold-To].CurrentMember.Name >= "150280" AND [Customer Sold-To].[Customer Sold-To].CurrentMember.Name <= "150350"

View Name: Expression Filter with Member							
View Filter							
Product Brand >>	001						002
PBrnd Long Description	Tip Top						Dew Drc
Customer Sold-To	SldTo Long Description	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Amount Jan 2014 to Sep 2014	YTD % of Total	Actual Sales Sales Units Sep 2014 to Sep 2014	Actual Sales Sales Amount Sep 2014 to Sep 2014	Actual Sa Sales Un Jan 2014 Sep 201
<a href="#">150280</a>	New York Foods	32,484	\$2,075,524	11%	6,085	\$358,317	48
<a href="#">150290</a>	Montelissi Distribution	43,082	\$2,462,797	13%	5,130	\$319,989	45
<a href="#">150300</a>	Auburn Providers	43,387	\$2,658,087	14%			69
<a href="#">150310</a>	Maple Tree Foods	36,752	\$2,266,995	12%	12,409	\$797,832	65
<a href="#">150320</a>	Quebec Foods	30,795	\$1,653,760	9%	5,846	\$383,155	46
<a href="#">150330</a>	Canadian Imports	37,630	\$2,453,227	13%	5,697	\$382,779	81
<a href="#">150340</a>	Alberta Foods	41,301	\$2,415,657	12%			64
<a href="#">150350</a>	Chicago's Finest	54,234	\$3,468,513	18%	11,812	\$782,800	34
<b>Grand Total</b>		<b>319,666</b>	<b>\$19,454,561</b>	<b>100%</b>	<b>46,979</b>	<b>\$3,024,872</b>	<b>456</b>

### Attribute Relationships in Expression

This filter returns Product Category members that have the text 'fruit' in their PCat Long Description attribute relationship.

(INSTR(1, [Product Category].[Product Category].CurrentMember.Properties("PCat Long Description"), "Fruit") <> 0)

View Name: Expression Filter with AR							
View Filter							
Product Category	PCat Long Description	Actual Sales Sales Amount Wk 1 2014 to Wk 38 2014	% of Total	Actual Sales Sales Units Wk 1 2014 to Wk 38 2014	% of Total	Actual Sales Sales Amount Wk 38 2014 to Wk 38 2014	Actual Sales Sales Units Wk 38 2014 to Wk 38 2014
<a href="#">201</a>	Canned Fruit	\$1,979,809,747	83.39%	45,351,254	83.38%	\$58,950,296	1,123,590
<a href="#">204</a>	Fresh Fruit	\$294,627,014	12.41%	7,243,387	13.32%	\$11,084,764	223,802
<a href="#">207</a>	Frozen Fruit Products	\$99,856,357	4.21%	1,794,107	3.30%	\$3,193,268	45,582
<b>Grand Total</b>		<b>\$2,374,293,118</b>	<b>100.00%</b>	<b>54,388,749</b>	<b>100.00%</b>	<b>\$73,228,327</b>	<b>1,392,973</b>

## Expressions for Filtering an Axis

The following examples show an axis filter that uses just measure items and an axis filter that uses a measure item and attribute relationship. A table containing more example expressions follows these two examples.

Note that expressions that reference attribute relationships should use an IIF statement to check whether or not the level for the attribute relationship is visible. The second example that follows shows the impact of using an IIF statement.

- [Example 1 - Two Measure Items in Axis Filter](#)
- [Example 2- Measure Item and Attribute Relationship in Axis Filter](#)
- [More Example Expressions](#)

### Example 1 - Two Measure Items in Axis Filter

This axis filter on columns returns columns where Avg Selling Price is greater than or equal to \$75.00 and Profit is greater than \$50,000.

[Measures].[Data6 (Avg Selling Price)]>=75 AND [Measures].[Data8 (Profit)]>50000

Product >>	FrtCktail 6oz LnchPk BR* 0A	Pear 6oz LnchPk LS 0B	Peach 6oz LnchPk BR* 0B	FrtCktail 6oz LnchPk BR* 0B	FrtCktail 6oz LnchPk BR*
Sales Amount	\$216,087	\$249,990	\$240,896	\$432,175	\$237,6
Sales Return Amount	(\$23,795)	(\$22,981)	(\$19,987)	(\$47,591)	(\$26,1
Sales After Returns	\$192,292	\$227,009	\$220,909	\$384,584	\$211,5
Sales Units	2,545	2,840	2,738	5,089	2,7
Sales Return Units	(331)	(268)	(233)	(590)	(3
Avg Selling Price	\$84.92	\$88.02	\$87.98	\$84.92	\$84
Actual Cost	\$138,142	\$173,177	\$154,078	\$276,284	\$151,9
Profit	\$54,150	\$53,832	\$66,831	\$108,299	\$59,5

Here is the Expression window for the filter.

The screenshot shows the 'EXPRESSION - COLUMNS' window. On the left, under 'View Items and Functions', there is a tree view of 'Measure Items' with the following items listed: Data1 (Sales Amount), Data2 (Sales Return Amount), Data7 (Sales After Returns), Data4 (Sales Units), Data3 (Sales Return Units), Data6 (Avg Selling Price), Data5 (Actual Cost), and Data8 (Profit). On the right, the 'Expression' field contains the text: [Measures].[Data6 (Avg Selling Price)]>=75 AND [Measures].[Data8 (Profit)]>50000.



## Example 2 - Measure Item and Attribute Relationship in Axis Filter

This axis filter on rows returns rows where the Product sales for the current period of the current year are greater than \$150,000 and the Prod ABC Classification for the Product is A. The first part of the expression contains the sales measure item criteria, and the second part contains the attribute relationship criteria.

The IIF statement in the second part checks that the level for the attribute relationship referenced in the expression is visible in rows. In this case, the level is visible so Stratum.Viewer considers that filter condition when executing the filter. If the level had not been visible, the condition would have been ignored while executing the filter.

```
[Measures].[Data2 (Current Period This Year)]>150000 and
IIF([Product].[Product].CurrentMember.Level.Name="Product",[Product].[Product].Properties("Prod ABC
Classification")="A",1)
```

---

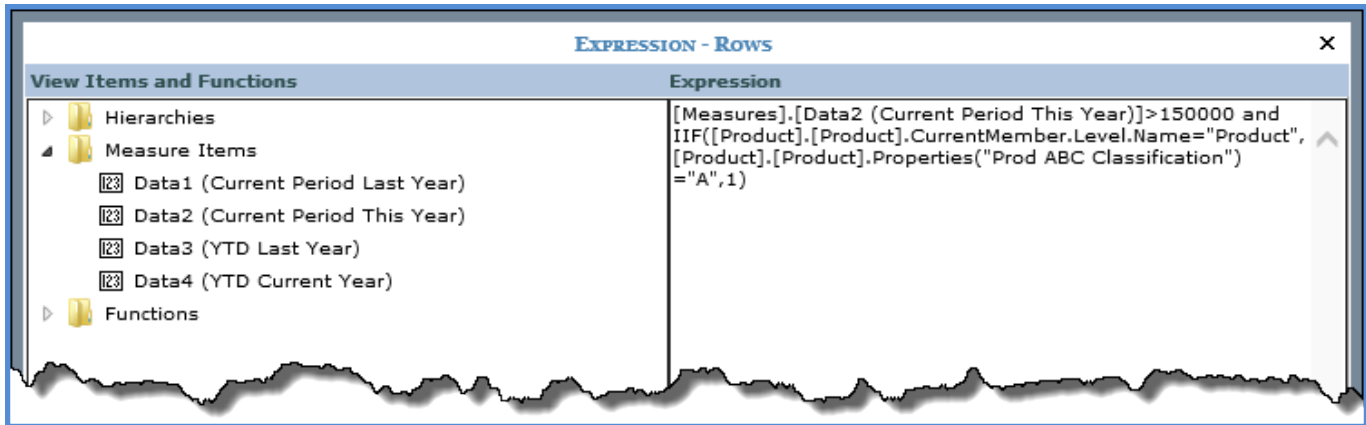
**Note:** The portion of the above MDX that checks for the level visibility references the name of the dimension and hierarchy for the level -- in this case [Product].[Product]. The hierarchy name is needed in cases where there are multiple hierarchies within the same dimension.

---

[Measures].[Data2 (Current Period This Year)]>150000 and  
 IIF([Product].[Product].CurrentMember.Level.Name="Product",  
 [Product].[Product].Properties("Prod ABC Classification")="A",1)

RepBroker	Product	Prod ABC Classification	Current Period Last Year	Current Period This Year	YTD Last Year	YTD Current Year
300	<a href="#">Pear 6oz LnchPk LS 5B</a>	A	\$321,653	\$255,774	\$13,178,521	\$7,500,585
	<a href="#">Pnappl Slcs 12oz PL* 5B</a>	A	\$208,384	\$168,596	\$9,366,632	\$5,309,002
	<a href="#">Pear 6oz LnchPk LS 5D</a>	A	\$192,992	\$153,464	\$7,907,113	\$4,500,351
	<a href="#">Pear 6oz LnchPk LS 5E</a>	A	\$209,074	\$166,253	\$8,566,039	\$4,875,381
	<a href="#">Pear 6oz LnchPk LS 5F</a>	A	\$225,157	\$179,042	\$9,224,965	\$5,250,410
	<a href="#">Pear 6oz LnchPk LS 5G</a>	A	\$241,240	\$191,831	\$9,883,891	\$5,625,439
	<a href="#">Pear 6oz LnchPk LS 5H</a>	A	\$257,322	\$204,619	\$10,542,817	\$6,000,468
	<a href="#">Pear 6oz LnchPk LS 5I</a>	A	\$273,405	\$217,408	\$11,201,743	\$6,375,498
	<a href="#">Pear 6oz LnchPk LS 5J</a>	A	\$289,487	\$230,197	\$11,860,669	\$6,750,527
	<a href="#">Pnappl Slcs 12oz PL* 5I</a>	A	\$187,545	\$151,736	\$8,429,969	\$4,778,101

This is the Expression window for the filter.



Here's what the view would look like if you were to drill up to RepBroker. Only the [Measures].[Current Period This Year]>150000 part of the axis filter expression is executed since Product is no longer visible.

**+ View Name: Axis Filter on Rows**

**View Filter**

<a href="#">RepBroker</a>	Current Period Last Year	Current Period This Year	YTD Last Year	YTD Current Year
<a href="#">300</a>	\$43,329,377	\$37,500,634	\$2,034,499,253	\$1,161,247,774
<a href="#">301</a>	\$3,726,139	\$2,456,915	\$132,397,108	\$75,365,668
<a href="#">302</a>	\$7,699,948	\$6,981,694	\$352,265,971	\$204,486,173
<a href="#">303</a>	\$3,433,655	\$3,009,195	\$153,524,572	\$87,846,078
<a href="#">304</a>	\$2,283,987	\$2,626,736	\$155,507,823	\$89,707,395
<a href="#">305</a>	\$17,916,802	\$15,022,164	\$877,750,849	\$510,513,452
<a href="#">306</a>	\$5,058,991	\$4,504,960	\$196,770,700	\$114,729,358
<a href="#">307</a>	\$1,409,623	\$1,117,367	\$57,488,785	\$33,992,154
<a href="#">308</a>	\$4,269,497	\$3,347,914	\$158,242,107	\$89,149,261
<a href="#">309</a>	\$2,573,712	\$2,815,224	\$127,422,712	\$72,776,501
<a href="#">312</a>	\$11,923,874	\$10,408,297	\$548,158,596	\$315,109,984
<a href="#">313</a>	\$16,772,903	\$14,197,829	\$735,352,351	\$418,232,088
<a href="#">315</a>	\$4,062,845	\$3,499,178	\$180,284,697	\$105,410,011
<a href="#">318</a>	\$950,798	\$1,471,982	\$69,800,032	\$40,668,788
<b>Grand Total</b>	<b>\$125,412,150</b>	<b>\$108,960,090</b>	<b>\$5,779,465,556</b>	<b>\$3,319,234,685</b>

### More Example Expressions

Desired Results...	Example Axis Filter
For all levels, Average Selling Price is >= 75 and Profit > 50,000.	[Measures].[Data6 (Avg Selling Price)]>=75 And [Measures].[Data8 (Profit)]>50000
When at Product level, will return rows where Prod ABC Classification = "A" AND Actual Sales Sales Units Jan 2014 to Sep 2014 is > 150,000. When at any other level - Actual Sales Sales Units Jan 2014 to Sep 2014 is > 150,000.	[Measures].[Data1 (Actual Sales Sales Units Jan 2014 to Sep 2014)]>150000 and IIF([Product].[Product].CurrentMember.Level.Name="Product", [Product].[Product].Properties("Prod ABC Classification")="A", 1)

Only for the Product level, return rows where Prod ABC Classification = "A" AND Actual Sales Sales Units Jan 2014 to Sep 2014 is > 150,000. When at any other level – No filter applied.	IIF([Product].[Product].CurrentMember.Level.Name="Product" , IIF ([Product].[Product].Properties("Prod ABC Classification")="A" AND [Measures].[Data1 (Actual Sales Sales Units Jan 2014 to Sep 2014)]>150000, 1,0) , 1)
When at Product level, will return rows where Actual Sales Sales Units Jan 2014 to Sep 2014 is > 150,000. When at any other level - Actual Sales Sales Units Jan 2014 to Sep 2014 is > 10,000,000.	IIF([Product].[Product].CurrentMember.Level.Name="Product" , IIF ([Measures].[Data1 (Actual Sales Sales Units Jan 2014 to Sep 2014)]>150000, 1,0) , [Measures].[Data1 (Actual Sales Sales Units Jan 2014 to Sep 2014)] > 10000000)
When at Product level, will return rows where Prod ABC Classification = "A" AND Actual Sales Sales Units Jan 2014 to Sep 2014 is > 150,000. When at any other level - Actual Sales Sales Units Jan 2014 to Sep 2014 is > 10,000,000.	IIF([Product].[Product].CurrentMember.Level.Name="Product" , IIF ([Product].[Product].Properties("Prod ABC Classification")="A" AND [Measures].[Data1 (Actual Sales Sales Units Jan 2014 to Sep 2014)]>150000, 1,0) , [Measures].[Data1 (Actual Sales Sales Units Jan 2014 to Sep 2014)] > 10000000)

### Examples of Sorts and Filters on Totals

This view displays year to date (YTD) sales data by Sales Director and UPC Global Number. A filter has been applied to the total column for the current year YTD sales. The result is a view where the only detail sales data on display for each Sales Director is that of Products that make up the top 20 percent of total YTD sales.

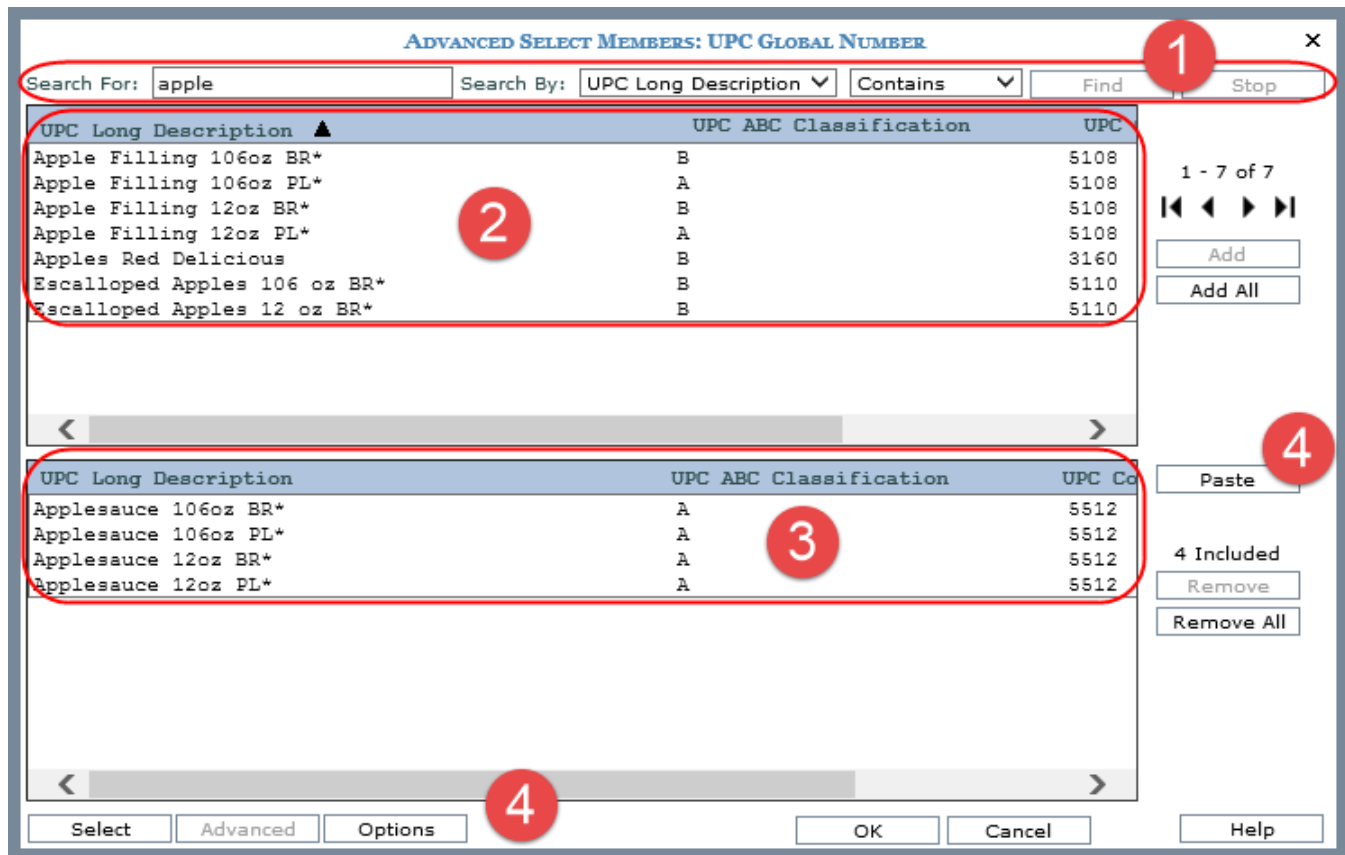
The screenshot shows a data table with the following structure:

Sales Dir >>		Helen Briggs		Steve Mentas		Total	
UPC Global Number	UPC Long Description	Actual Sales YTD 2014	Actual Sales YTD 2013	Actual Sales YTD 2014	Actual Sales YTD 2013	Actual Sales YTD 2014	Actual Sales YTD 2013
0 - 13800 - 30321 - 9	Frozen Lasagna Dinner	\$67,474,884	\$114,640,211	\$52,791,395	\$91,799,773	\$120,266,278	\$205,439,985
0 - 13800 - 78934 - 9	Meatloaf, Frozen	\$62,969,705	\$109,019,253	\$53,046,268	\$88,655,860	\$116,015,974	\$197,675,113
0 - 24000 - 12431 - 4	Applesauce 106oz PL*	\$61,198,544	\$102,926,472	\$39,810,495	\$66,757,441	\$101,009,039	\$169,683,913
0 - 02749 - 25408 - 6	Asparagus	\$54,327,537	\$90,241,412	\$36,101,356	\$61,306,990	\$90,428,893	\$151,548,403
0 - 06403 - 92736 - 2	Orange Juice Conc.	\$50,270,451	\$84,207,881	\$33,523,552	\$56,420,498	\$83,794,003	\$140,628,378
0 - 02749 - 99267 - 6	Cherries, Bing	\$42,383,321	\$73,262,012	\$31,376,355	\$52,936,770	\$73,759,676	\$126,198,782
<b>Grand Total</b>		<b>\$338,624,442</b>	<b>\$574,297,241</b>	<b>\$246,649,422</b>	<b>\$416,877,332</b>	<b>\$585,273,863</b>	<b>\$991,174,573</b>

In this example, quarterly sales data is displayed by Distribution Center Warehouse and Customer Ship-To. A filter has been applied to the total column for the current year, current quarter sales. The result is a view where the detail data on display is Customer Ship-To's with total sales greater than \$2,000,000. Also, a sort was applied to the same total column to organize the Customer Ship-To's in descending order.

<span>1 to 50 of 79</span>   <span>1 to 6 of 6</span> <span style="float: right;">Viewer ▾</span>						
<span>View Name: <i>Ship-To Analysis by Warehouse</i></span>						
<span>View Filter</span>						
<a href="#">Distribution Center Warehouse &gt;&gt;</a>	19		21		<span>&gt;= 2000000</span> Total	
<a href="#">Customer Ship-To</a>	Actual Sales Amount Q3 2014	Actual Sales Amount Q3 2013	Actual Sales Amount Q3 2014	Actual Sales Amount Q3 2013	<span>▼</span> Actual Sales Amount Q3 2014	Actual Sales Amount Q3 2013
<a href="#">Wilder Foods -- St Louis MO WOB</a>	\$3,784,881	\$3,784,881	\$4,611,329	\$4,611,829	\$8,396,209	\$8,396,209
<a href="#">Wilder Foods -- St Louis MO WOJ</a>	\$3,406,393	\$3,406,393	\$4,150,196	\$4,150,196	\$7,556,588	\$7,556,588
<a href="#">Wilder Foods -- St Louis MO WOI</a>	\$3,217,149	\$3,217,149	\$3,919,629	\$3,919,629	\$7,136,778	\$7,136,778
<a href="#">Wilder Foods -- St Louis MO</a>	\$3,045,002	\$3,045,002	\$3,701,887	\$3,701,887	\$6,746,889	\$6,746,889
<a href="#">Wilder Foods -- St Louis MO WOH</a>	\$3,027,905	\$3,027,905	\$3,689,063	\$3,689,063	\$6,716,967	\$6,716,967
<a href="#">Wilder Foods -- St Louis MO WOG</a>	\$2,838,660	\$2,838,660	\$3,458,496	\$3,458,496	\$6,297,157	\$6,297,157
<a href="#">Wilder Foods -- St Louis MO WOF</a>	\$2,649,416	\$2,649,416	\$3,227,930	\$3,227,930	\$5,877,347	\$5,877,347
<a href="#">Wilder Foods -- St Louis MO WOE</a>	\$2,460,172	\$2,460,172	\$2,997,364	\$2,997,364	\$5,457,536	\$5,457,536
<a href="#">Wilder Foods -- Buffalo NY WOB</a>	\$2,537,763	\$2,537,763	\$2,548,447	\$2,548,447	\$5,086,210	\$5,086,210
<a href="#">Wilder Foods -- St Louis MO WOD</a>	\$2,270,928	\$2,270,928	\$2,766,797	\$2,766,797	\$5,037,726	\$5,037,726
<a href="#">Wilder Foods -- St Louis MO WOC</a>	\$2,081,684	\$2,081,684	\$2,536,231	\$2,536,231	\$4,617,915	\$4,617,915
<a href="#">Wilder Foods -- Buffalo NY WOJ</a>	\$2,283,987	\$2,283,987	\$2,293,602	\$2,293,602	\$4,577,589	\$4,577,589
<a href="#">Wilder Foods -- Buffalo NY WOI</a>	\$2,157,098	\$2,157,098	\$2,166,180	\$2,166,180	\$4,323,278	\$4,323,278

## Advanced Select Members Window



1

Use the search properties to specify the criteria and the parameters by which to search for members to be used in the member list. That list can be used as a level filter, to create a user list, or to help build an expression.

**Note:** The window also is used when administrators set up roles.

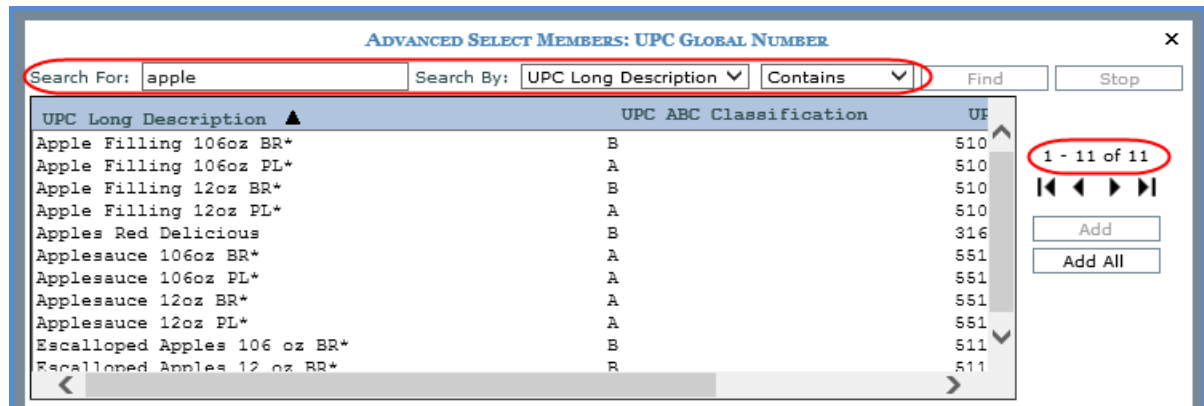
**Search For:** - Enter a value in the Search For field. Multiple searches can be entered by separating them with a semicolon. If the Search For field is left blank, the available list displays all members for the active level.

**Search By:** - Use this drop-down list to select the attribute relationship to perform the search on.

**Contains, Does not contain, Starts With, Equal to, Not Equal to, Greater than, Less than** - Select whether you want your search to contain, not contain, start with, be equal to, not equal to, greater than, or less than the value(s) specified in the search.

**Find** - Click this button to execute the search. The list of available members is refreshed based on the search.

In the following example, we searched for UPC long descriptions containing “apple” and 11 items were retrieved.



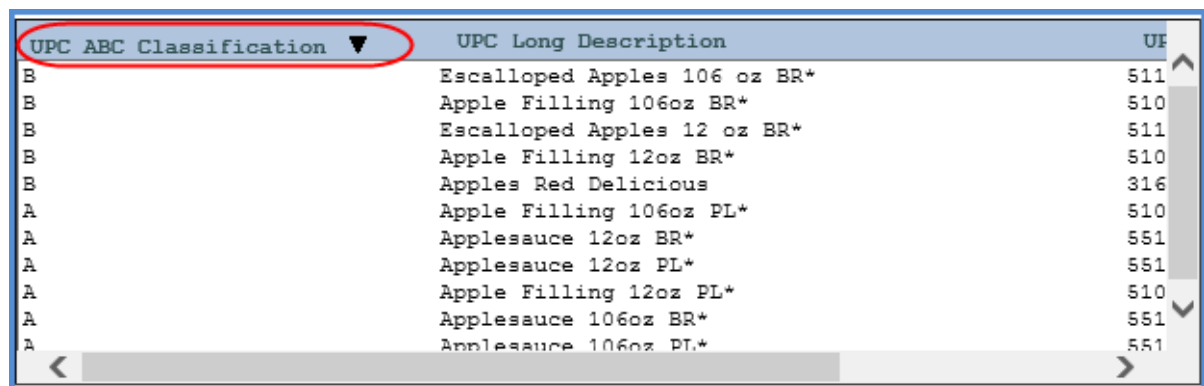
2

**Available Selection list** – The list area displays the names of the members returned by your search. Use this list to select the members to include in the member list.

Use one of the following methods to select the desired members from the available selection list in the top portion of the window and move them to the selected list displayed in the bottom portion of the window.

- Select the desired member(s) from the available selection list and click Add. You can use Ctrl+Click and Shift+Click when selecting more than one member.
- Double-click a member in the list.
- Click Add All to add all of the available members, from all pages, to the end of the selection list.

Columns in this area are sort and drag/drop enabled. In the following example, we clicked the UPC ABC Classification column and dragged it to the first position. We also clicked the Sort icon and changed the sort from ascending to descending.



3

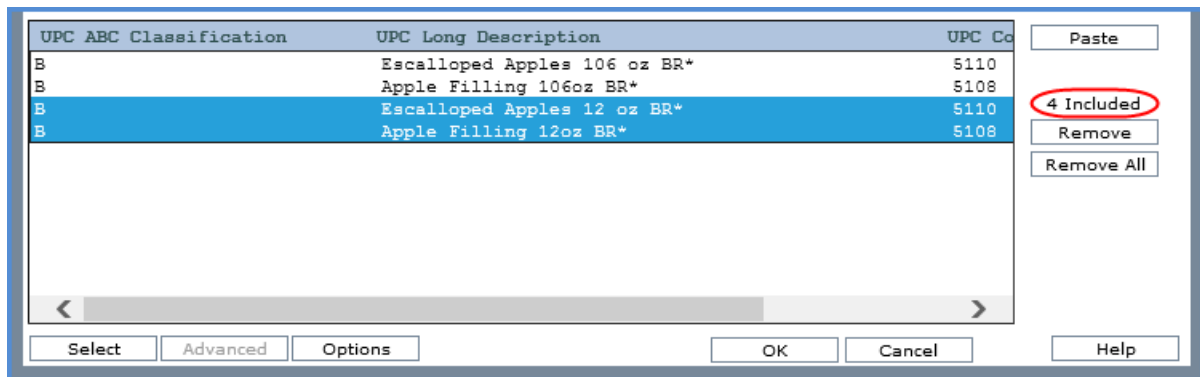
**Selected list** - displays the members selected for the member list. These members are not available for re-selection in the top portion of the window.

Use one of the following methods to remove members:

- Select the desired member(s) and click Remove. You can use Ctrl+Click and Shift+Click when selecting more than one member.
- All selected items are removed from the selected list. Removed items no longer display in the selected portion but are available for selection in the top portion of the window. When removed from the selected list, the item is added to the end of the available list section.

- Double-click a member in the list.
- Click Remove All to remove all of the members, from all pages of the selected list.

In the following example, there are four items in the filter and two have been selected with the intention of removing them. After the Remove button is clicked, the filter will contain only two items.



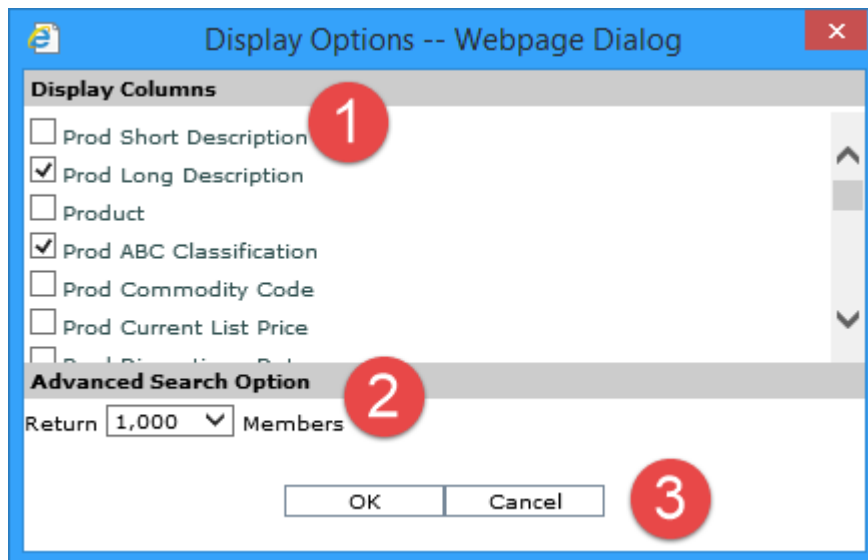
4

**Select** – Click to access the Select Members window. This button may not display depending on administrative settings for the level. Administrators determine which version(s) of the window are available by dimension.

**Paste** – Click to access the Paste Members window, which lets you copy a list of members into the member list that you are building.

**Options** – Use to change the paging control and display columns in this window.

## Display Options Window for Select and Advanced Select Members Windows



1

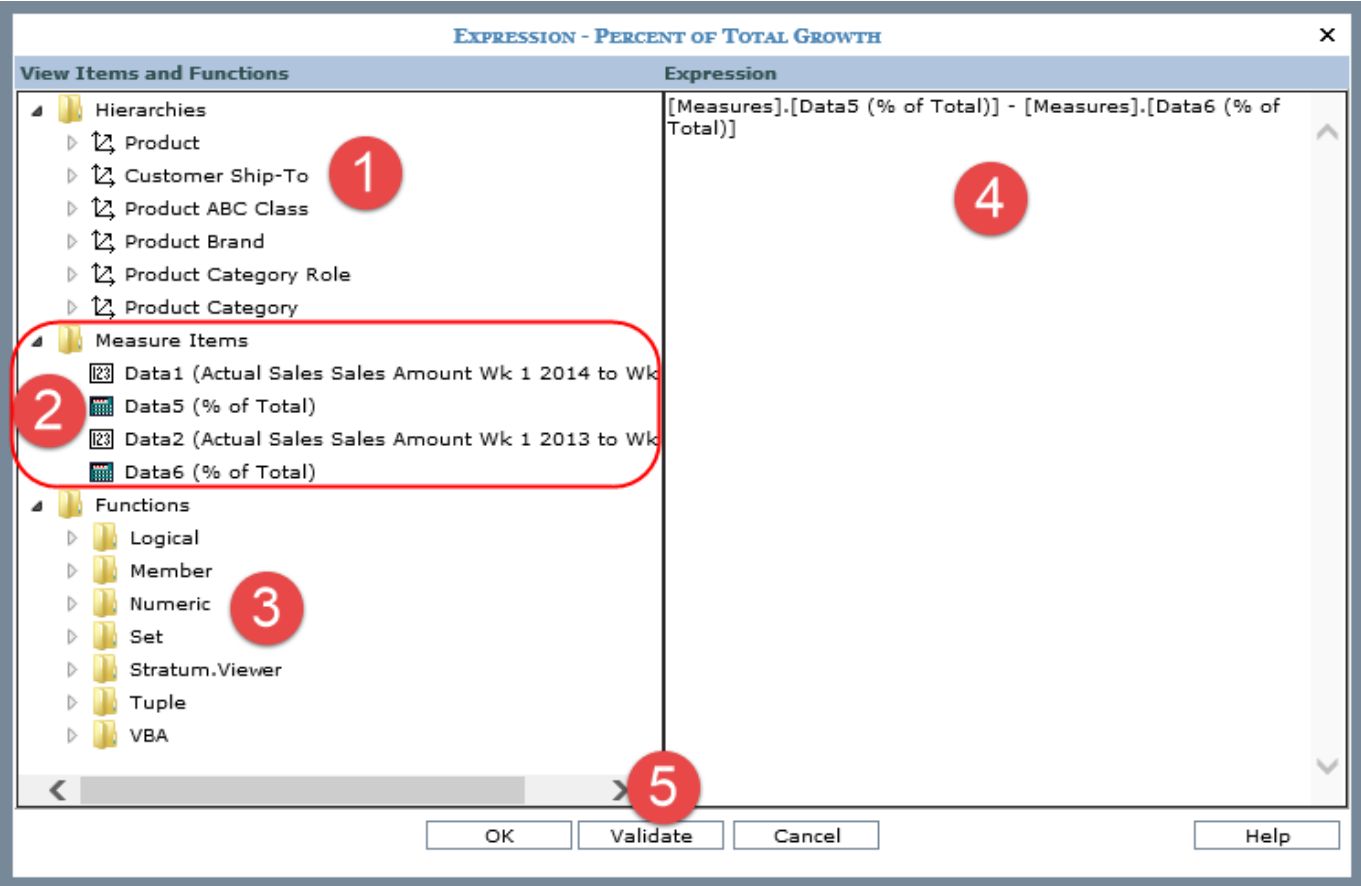
**Display Columns** - Select or deselect columns to control the information that displays on the [Select Members](#) and [Advanced Select Members windows](#). The columns that display by default depend on where you accessed the window from within Stratum.Viewer. If accessed from views, the default columns are what's displayed in the grid. If accessed from windows such as User List Maintenance, the default columns are determined by administrator settings in the Select Members Options window.

2

**Advanced Search Option** - Controls how many members display per page in the search results section of the Advanced Select Members window.

**3** **OK** - Clicking OK applies the changes for the current session only in the Select and Advanced Select Members windows. When you toggle back and forth between the two windows, the changes will be reflected in both windows. Once you exit the windows, display options return to their defaults.

**Expression Window for Views**



**1** **Hierarchies** – Hierarchies, levels, and attribute relationships that are part of the view definition will appear in the View Items and Function portion of the Expression window. They appear in the same order as in the view explorer and regardless of whether or not they are visible or actively showing in the grid.

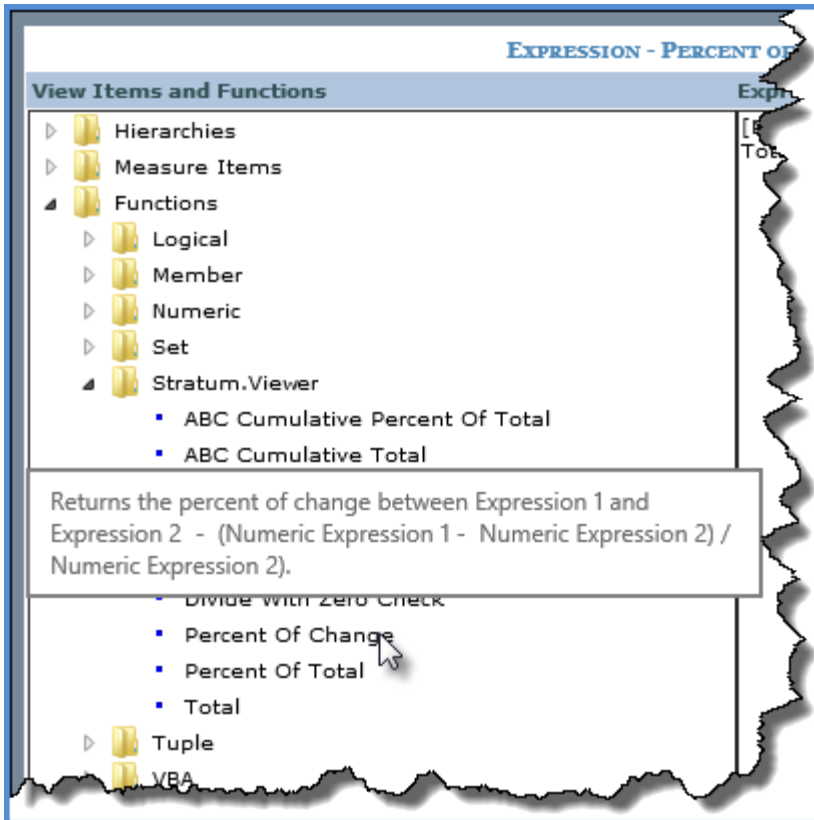
Levels can be expanded to see the Attribute Relationships and Members folders. If attribute relationships were selected for the level, they will display when the Attribute Relationships folder is expanded.



	<ul style="list-style-type: none"> <li>• <b>Levels and Attribute Relationships</b> - Click a level or attribute relationship to add it to the expression. Objects can also be drag and dropped into the Expression portion of the window.</li> <li>• <b>Members</b> - Another tool for building the expression is the Members folder. Click it to access the <a href="#">Select Filter Method window</a>. From there, you can access the <a href="#">Select</a> or <a href="#">Advanced Select Members</a> window. This allows you to select specific members for the expression. Or, you can access the <a href="#">Named Set window</a> and select a named set for the expression in cases when you are working with a single level time dimension.</li> </ul> <p>When you add objects in this manner to the Expression, they are added in MDX format. That format includes a reference to the object dimension and hierarchy. The standard MDX format for objects commonly used in expressions follows.</p> <ul style="list-style-type: none"> <li>• <b>Level</b> - [Dimension name].[Hierarchy name].[Level name].members</li> <li>• <b>Attribute Relationship</b> - [Dimension name].[Hierarchy name].Properties("Attribute Relationship name")</li> <li>• <b>Member</b> - [Dimension name].[Hierarchy name].[Level name].[Member value]</li> </ul> <p>You can also add objects to the expression by typing directly in the Expression portion of the window.</p>
<p>2</p>	<p><b>Measure Items</b> – The Measure Items section lists all the measure items associated with the view. Each measure item displays as Name (Caption). The name is the unique identifier associated with the measure item, which can be seen in the <a href="#">Properties window for the measure item</a>. The caption makes it user friendly. They appear in the same order as in the view explorer.</p> <p>You can include measure items as part of the expression using any of the following methods:</p> <ul style="list-style-type: none"> <li>• Select measure items by clicking or drag and drop.</li> <li>• Key in measure item names directly in the Expression portion of the window in proper MDX format:  [Measures].[Name(Caption)] or [Measures].[Name]  where Name is the unique identifier that you can see for the measure item displayed in the measure item folder of the expression window.</li> </ul> <p>You can also key in any measure that is part of the cube associated with the view. The format to use for measures is [Measures].[Name] where Name is the full name for the measure (for example, Actual Sales Sales Units or Budget Budget Amount Frozen).</p>
<p>3</p>	<p><b>Functions</b> – A Functions folder provides you with logical, member, numeric, set, Stratum.Viewer-specific, tuple, and VBA functions that can be used for building the calculated or distinct calculated measure item expression. You can select a function by clicking, double clicking, or drag and drop. You can also key in a function directly in the Expression portion of the window.</p> <p>If you select a function for your expression, then the formula for it will display in the Expression section and each parameter will be enclosed in double arrows (&lt;&lt; &gt;&gt;). Function parameters enclosed in double arrows, such as «PARAMETER», are required. Parameters enclosed in brackets and double arrows, such as [«PARAMETER»], are optional. You can highlight each parameter and type over it directly in the Expression section. Or you can click the needed element from the tree structure in the window and it will be inserted into that section of the function.</p> <p>The Stratum.Viewer folder includes custom functions, such as cumulative and percent of total functions. If you use them in an expression, they will be preceded by a pound sign (#) to distinguish them from standard MDX functions. The Stratum.Viewer specific functions are:</p> <ul style="list-style-type: none"> <li>• ABC Cumulative Percent of Total</li> <li>• ABC Cumulative Total</li> <li>• Achievement Percent</li> <li>• Cumulative Percent of Total</li> </ul>

- Cumulative Total
- Divide With Zero Check
- Percent of Change
- Percent of Total
- Total

There are pop-up labels for all functions, and they give you a brief description of the functions.



4

**Expression** – MDX expression associated with the measure item.

**Note:** Objects not visible in a view or not part of a view definition can be used in an expression by manually entering them into the Expression portion of the window. You must refer to them by their valid MDX format and they must exist in the cube associated with the view.

5

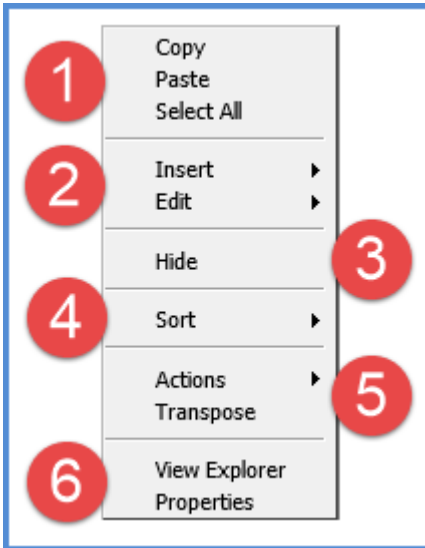
**Validate** – Click the Validate button at any point while you are building the expression. Stratum.Viewer will verify whether or not the format of your expression is valid. If you do not click the Validate button while building the expression, then validation will be performed once you click the OK button.

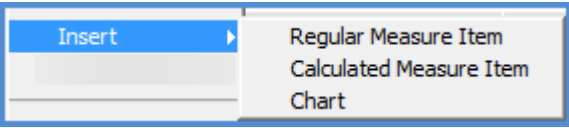
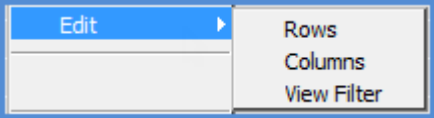
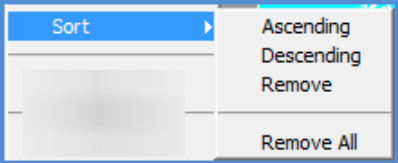
## Grid Pop-up Menus

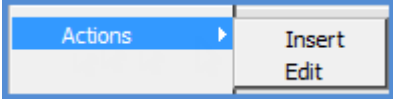
Right-click objects in views to display actions that you can take such as inserting measure items, transposing the grid, filtering objects in the grid, and so forth. Many of the functions can also be controlled through view explorer and the Properties window, giving you several ways to make changes. Options on pop-up menus vary by user. Your user profile level determines which options are available to you. The menus in these examples are for a user with an advanced level of access. Menus are displayed in alphabetical order.

## Attribute Relationships Pop-up Menu

Right-click an attribute relationship to display actions that you can take related to that object or axis.

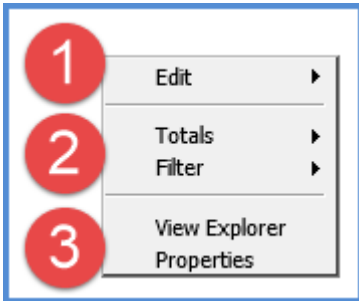


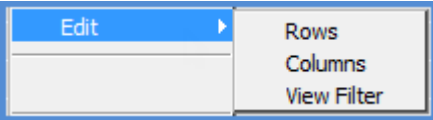
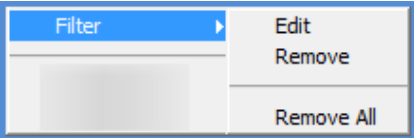
<p>1</p>	<p><b>Copy</b> - This option allows you to copy sections of a view that you have selected.</p> <p><b>Paste</b> - Allows you to paste data into update enabled cells. This option only shows in planning enabled views.</p> <p><b>Select All</b> - Use this option to select the entire grid.</p>
<p>2</p>	<p><b>Insert</b> - The sub menu has options for Regular Measure Item, Calculated Measure Item, and Chart. The Insert Measure Item window will automatically refresh the grid when it is closed. The Charting Data Wizard will display when inserting a new chart.</p>  <p><b>Edit</b> - Edit the hierarchies on the rows, columns, or view filter.</p> 
<p>3</p>	<p><b>Hide</b> - When an attribute relationship is right-clicked and Hide is selected, the selected object is hidden from the grid. The Visible property for the attribute relationship changes to No. From view explorer, you can drag an attribute relationship back in the grid if needed, or you can change the Visible property to Yes.</p>
<p>4</p>	<p><b>Sort</b> - Sort options are Ascending, Descending, Remove, and Remove All.</p> 
<p>5</p>	<p><b>Actions</b> – Use this option to insert new actions or to edit, process, or delete existing actions.</p>

	 <p><b>Transpose</b> - Use this option to change the axis for levels and measure items in the grid. Objects displayed in columns are switched to display in rows and vice versa.</p>
6	<p><b>View Explorer</b> - This option allows you to open and close view explorer. If the Properties window is open when you close view explorer, the Properties window will also close.</p> <p><b>Properties</b> - Click to maintain the attribute relationship properties including sorting and whether it is visible or not.</p>

### Axis Pop-up Menu

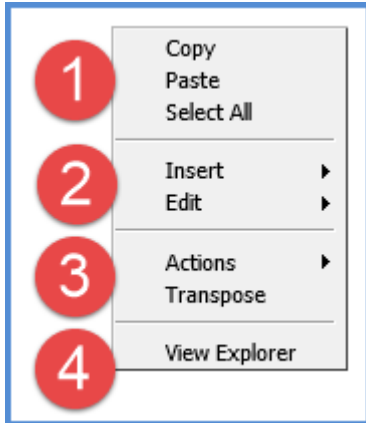
Right-click to display actions that you can take related to that axis, such as controlling the display of totals by axis.

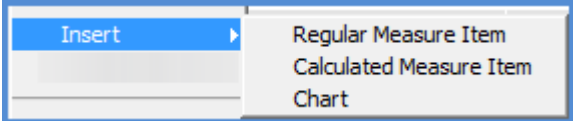
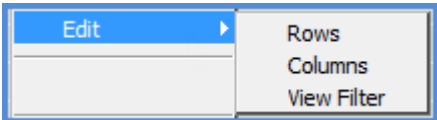
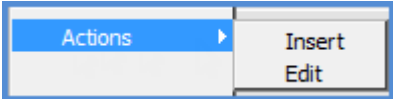


1	<p><b>Edit</b> - Edit the hierarchies on the rows, columns, or view filter.</p> 
2	<p><b>Totals</b> - Control whether totals are displayed for all levels on the axis by choosing Yes or No. The Totals Default property in the Properties window for the axis also changes to reflect your choice, as does the Totals property in the Properties window for each level on that axis.</p> <p><b>Filter</b> - Filter options are Edit, Remove, and Remove All.</p> 
3	<p><b>View Explorer</b> - This option allows you to open and close view explorer. If the Properties window is open when you close view explorer, the Properties window will also close.</p> <p><b>Properties</b> - Click to maintain the view properties including the name, description, type and view group.</p>

## General Pop-up Menu

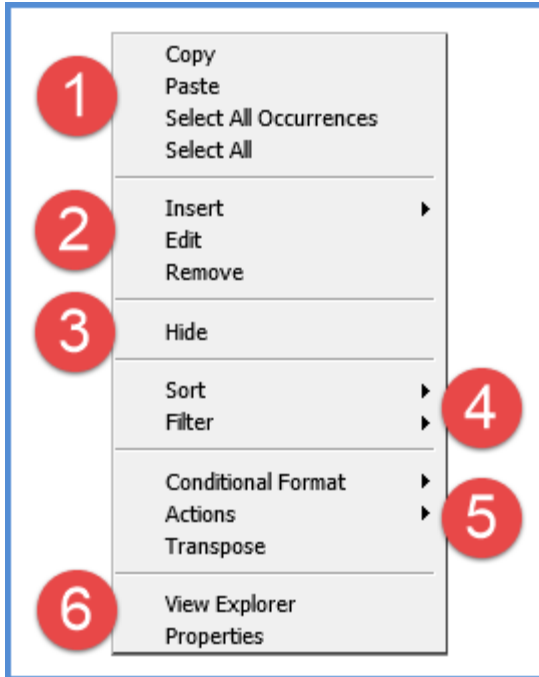
Right-click within the grid to display actions that you can take such as transposing the rows, columns, and measure items.



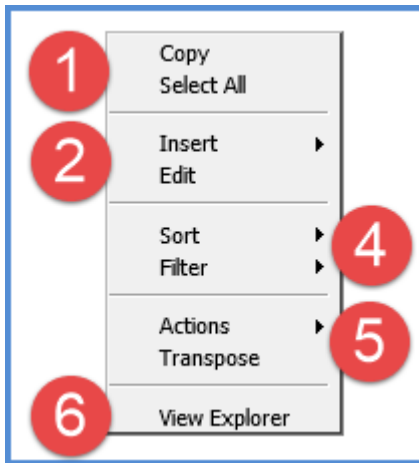
<p>1</p>	<p><b>Copy</b> - This option allows you to copy sections of a view that you have selected.</p> <p><b>Paste</b> - Allows you to paste data into update enabled cells. This option only shows in planning enabled views.</p> <p><b>Select All</b> - Use this option to select the entire grid.</p>
<p>2</p>	<p><b>Insert</b> - The sub menu has options for Regular Measure Item, Calculated Measure Item, and Chart. The Insert Measure Item window will automatically refresh the grid when it is closed. The Charting Data Wizard will display when inserting a new chart.</p>  <p><b>Edit</b> - Edit the hierarchies on the rows, columns, or view filter.</p> 
<p>3</p>	<p><b>Actions</b> – Use this option to insert new actions or to edit, process, or delete existing actions.</p>  <p><b>Transpose</b> - Use this option to change the axis for levels and measure items in the grid. Objects displayed in rows are switched to display in columns and vice versa.</p>
<p>4</p>	<p><b>View Explorer</b> - This option allows you to open and close view explorer. If the Properties window is open when you close view explorer, the Properties window will also close.</p>

### Measure Item Pop-up Menu (Detail and Grand Total Menus)

Measure items can be assigned to one axis, either rows or columns. Right-click the caption of a measure item in a detail row or column to display actions that you can take related to that object, such as inserting additional measure items or applying conditional formats.

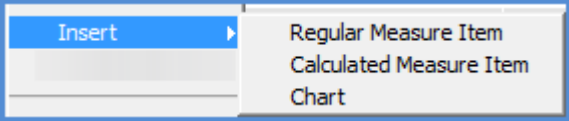
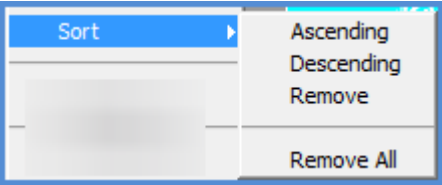
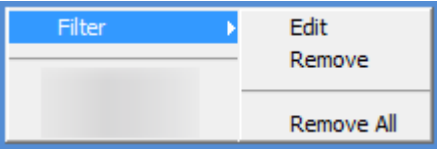
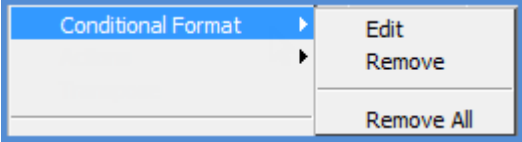
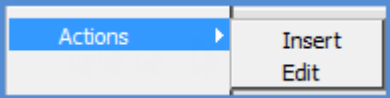


Or, right-click the caption of a measure item in a Grand Total row or column to work with values in that area of a view, such as by applying sorts and filters to them.



Descriptions follow of the menus for measure items in detail and Grand Total rows or columns.

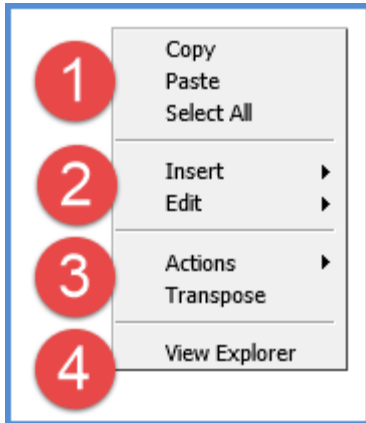
1	<p><b>Copy</b> - This option allows you to copy sections of a view that you have selected.</p> <p><b>Paste</b> - Allows you to paste data into update enabled cells. This option only shows in planning enabled views. This option does not display on the menu for Grand Totals.</p> <p><b>Select All Occurrences</b> - Use this option to select data for all occurrences of that measure item in the active page of the View. This option does not display on the menu for Grand Totals.</p> <p><b>Select All</b> - Use this option to select the entire grid.</p>
2	<p><b>Insert</b> - The sub menu has options for Regular Measure Item, Calculated Measure Item, and Chart. The Insert Measure Item window will automatically refresh the grid when it is closed. The Charting</p>

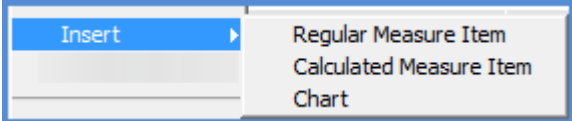
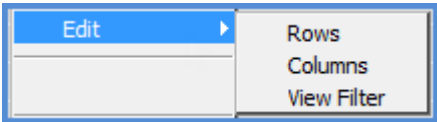
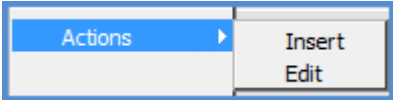
	<p>Data Wizard will display when inserting a new chart.</p>  <p><b>Edit</b> - For regular measure items, opens the Edit Measure Item window with that measure item selected for editing. You can edit that measure item or any other regular measure items. For calculated measure items, opens the Expression window so you can edit the measure item expression.</p> <hr/> <p><b>Note:</b> Another way to access the Edit Measure Item window or Expression window is to double-click the caption of the respective regular or calculated measure item.</p> <hr/> <p><b>Remove</b> - Removes the measure item from the view definition without confirmation. It will no longer display in the view explorer. This option does not display on the menu for Grand Totals.</p>
<p>3</p>	<p><b>Hide</b> - When a measure item is right-clicked and Hide is selected, the selected object is hidden from the grid. The Visible property for the measure item changes to No. From view explorer, you can drag a measure item back in the grid if needed, or you can change the Visible property to Yes. This option does not display on the menu for Grand Totals.</p>
<p>4</p>	<p><b>Sort</b> - Sort options are Ascending, Descending, Remove, and Remove All.</p>  <p><b>Filter</b> - Filter options are Edit, Remove, and Remove All.</p> 
<p>5</p>	<p><b>Conditional Format</b> – Use this option to edit or add conditional formatting on the measure item, There are also options for removing the conditional format on the active measure item or all measure items. This option does not display on the menu for Grand Totals.</p>  <p><b>Actions</b> – Use this option to insert new actions or to edit, process, or delete existing actions.</p>  <p><b>Transpose</b> - Use this option to change the axis for levels and measure items in the grid. Objects displayed in columns are switched to display in rows and vice versa.</p>
<p>6</p>	<p><b>View Explorer</b> - This option allows you to open and close view explorer. If the Properties window is open when you close view explorer, the Properties window will also close.</p> <p><b>Properties</b> - Click to maintain the measure item properties including the name, caption expression,</p>

type, pop-up labels, hyperlinks, and so forth. This option does not display on the menu for Grand Totals.

### View Filter Pop-up Menu

Right-click the View Filter header to display actions that you can take related to that object or section of the grid, such as filtering levels in that section.



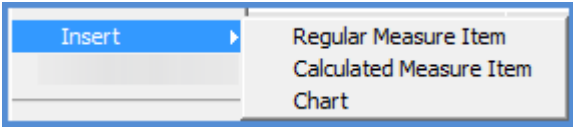
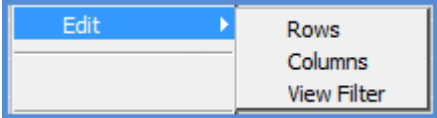
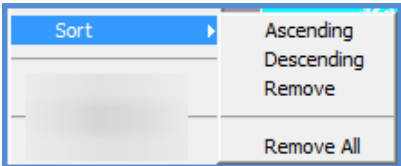
<p>1</p>	<p><b>Copy</b> - This option allows you to copy sections of a view that you have selected.</p> <p><b>Paste</b> - Allows you to paste data into update enabled cells. This option only shows in planning enabled views.</p> <p><b>Select All</b> - Use this option to select the entire grid.</p>
<p>2</p>	<p><b>Insert</b> - The sub menu has options for Regular Measure Item, Calculated Measure Item, and Chart. The Insert Measure Item window will automatically refresh the grid when it is closed. The Charting Data Wizard will display when inserting a new chart.</p>  <p><b>Edit</b> - Edit the hierarchies on the rows, columns, or view filter.</p> 
<p>3</p>	<p><b>Actions</b> – Use this option to insert new actions or to edit, process, or delete existing actions.</p>  <p><b>Transpose</b> - Use this option to change the axis for levels and measure items in the grid. Objects displayed in columns are switched to display in rows and vice versa.</p>
<p>4</p>	<p><b>View Explorer</b> - This option allows you to open and close view explorer. If the Properties window is open when you close view explorer, the Properties window will also close.</p>

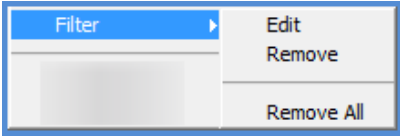
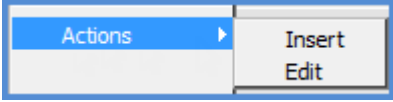


## Levels Pop-up Menu

Right-click the level to display actions that you can take related to the level, such as editing the hierarchy.

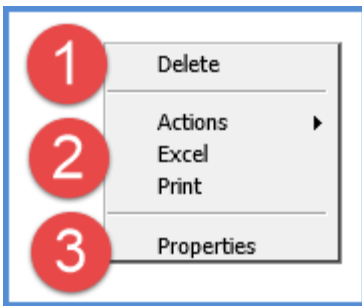


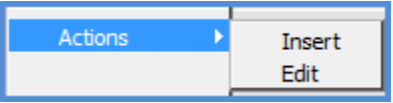
<p>1</p>	<p><b>Copy</b> - This option allows you to copy sections of a view that you have selected.</p> <p><b>Paste</b> - Allows you to paste data into update enabled cells. This option only shows in planning enabled views.</p> <p><b>Select All</b> - Use this option to select the entire grid.</p>
<p>2</p>	<p><b>Insert</b> - The sub menu has options for Regular Measure Item, Calculated Measure Item, and Chart. The Insert Measure Item window will automatically refresh the grid when it is closed. The Charting Data Wizard will display when inserting a new chart.</p>  <p><b>Edit</b> - Edit the hierarchies on the rows, columns, or view filter.</p> 
<p>3</p>	<p><b>Hide</b> - When a level is right-clicked and Hide is selected, the selected object is hidden from the grid. The Visible property for the level changes to No. From view explorer, you can drag a level back in the grid if needed, or you can change the Visible property to Yes.</p>
<p>4</p>	<p><b>Sort</b> - Sort options are Ascending, Descending, Remove, and Remove All.</p>  <p><b>Filter</b> - Filter options are Edit, Remove, and Remove All.</p>

	
5	<p><b>Actions</b> – Use this option to insert new actions or to edit, process, or delete existing actions.</p>  <p><b>Transpose</b> - Use this option to change the axis for levels and measure items in the grid. Objects displayed in columns are switched to display in rows and vice versa.</p>
6	<p><b>View Explorer</b> - This option allows you to open and close view explorer. If the Properties window is open when you close view explorer, the Properties window will also close.</p> <p><b>Properties</b> - Click to maintain the level properties including the filter, sort, totaling, visibility, and display text.</p>

### View Name Pop-up Menu

Right-click the view name to display actions that you can take related to the overall grid, such as exporting to Excel.



1	<p><b>Delete</b> - Choose Delete to delete the view with confirmation. Anyone can delete their own personal views, but only view and security administrators may delete global views.</p>
2	<p><b>Actions</b> – Use this option to insert new actions or to edit, process, or delete existing actions.</p>  <p><b>Excel</b> - Click to initiate an export of the view to Microsoft Excel.</p> <p><b>Print</b> - Click to print the active page of the view.</p>
3	<p><b>Properties</b> - Click to maintain the view properties including the name, description, type and view group.</p>

## Measure Item Filter Window

MEASURE ITEM FILTER: ACTUAL SALES SALES UNITS

Operator **1**

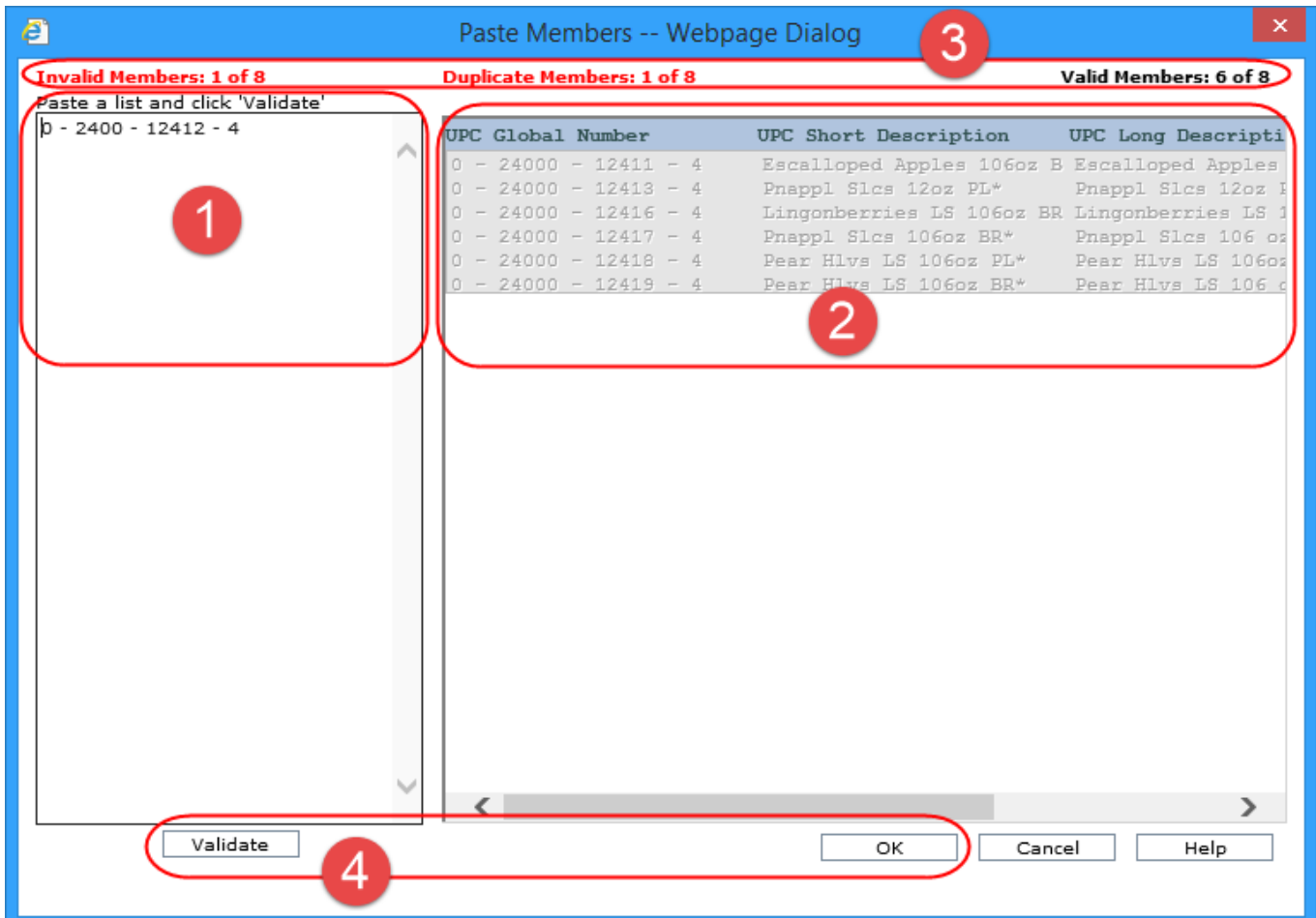
Value **2**

Cancel

=  
<>  
<  
<=  
>  
>=  
Top Count  
Top Percent  
Top Sum  
Bottom Count  
Bottom Percent  
Bottom Sum  
Recursive Top Count  
Recursive Top Percent  
Recursive Top Sum  
Recursive Bottom Count  
Recursive Bottom Percent  
Recursive Bottom Sum  
Overall Top Count  
Overall Top Percent  
Overall Top Sum  
Overall Bottom Count  
Overall Bottom Percent  
Overall Bottom Sum

<b>1</b>	<b>Operator list</b> - Choose what type of filter to apply, such as greater than or less than, top / bottom, recursive top / bottom, or overall top / bottom filters.
<b>2</b>	<b>Value list</b> - Type in the numeric value by which to filter the measure.

## Paste Members Window



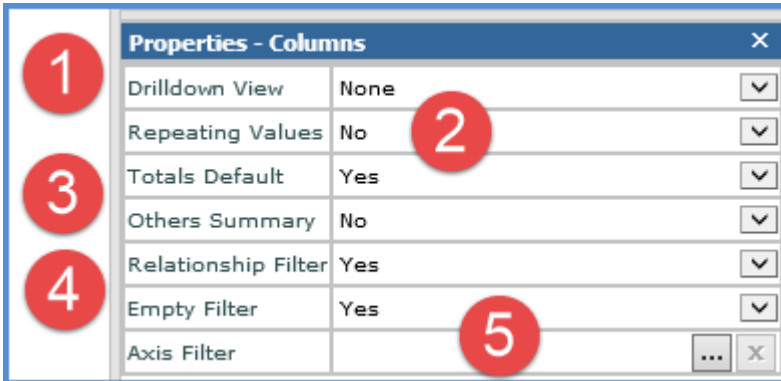
1	<p><b>Paste Members</b> – Use in combination with the Validate button to copy a list of members from other sources into Stratum.Viewer, validate the list, and then add valid members to the member list you are creating. Members copied into this section need to be separated by a carriage return. Examples of sources from which you can copy members would be a column in an Excel spreadsheet or list of members from a Word document. You can also use a comma-delimited list from an email or text file.</p>
2	<p><b>Validated Members</b> - This section is display-only. It is populated with valid members that were entered in the left portion of the window.</p>
3	<p><b>Member Status</b> - Counts of invalid, duplicate, valid, and total members validated while using this window display at the top of the window.</p>
4	<p><b>Validate</b> - Click to verify the pasted members are valid for the level with which you are working. Valid members are moved to the right side of the window. Invalid members remain in the left side of the window. Duplicate members are removed. Counts are updated in the member status displayed at the top of the window.</p> <p><b>OK</b> - Click to return all valid members back to the Advanced Select Members window. In that window, you can make adjustments such as sorting or removing some of the copied members from the member list with which you are working.</p>


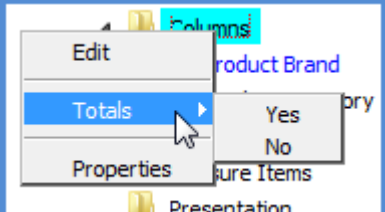
## Properties Windows for Attribute Relationships



<b>1</b>	<b>Sort</b> - Use to add, edit, or remove Ascending and Descending sorts.
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## Properties Window for Columns



<b>1</b>	<b>Drilldown View</b> – Assign a drilldown view if you want to drill from the last level displayed on columns to another view, for example, to a view with related or complimentary data to the originating view. Choose from views that you normally have access to in the application.
<b>2</b>	<b>Repeating Values</b> – Use to control whether or not duplicate column values display in the grid. Set the option to Yes if you want to see the following values repeated across the column detail cells in the grid: level display text, level attribute relationships, headings for All Others (if Others Summary is enabled), sub-totals, and grand totals.
<b>3</b>	<p><b>Totals Default</b> – Use to control whether or not Totals display by default for new levels inserted on columns. Leave the property set to Yes if you want all new levels that are inserted on columns to have totals displayed for them. Change to No if you want totals to be disabled for all new levels that you insert on columns. You can customize totals for new and existing levels in other ways using other settings:</p> <ul style="list-style-type: none"> <li>• Change totals for individual levels, one level at a time. Use the “Total” setting in the Properties window for individual levels to show or hide their totals.</li> <li>• Change totals for all levels on columns at once. Use the "Totals" option on the pop-up menu for the columns axis (right-click the columns axis icon ) or by right-clicking the Columns folder in view explorer. Selecting Yes from the menu displays totals for all levels on columns and sets the “Totals Default” to Yes. Selecting No hides totals for all levels on columns and sets the “Totals Default” to No.</li> </ul> <div style="text-align: center;">  </div> <p><b>Others Summary</b> – Use to control whether or not All Others data displays in columns for filtered levels.</p>


Select Yes if you want the "All Others" columns to display. For example, if you have filtered a level by certain members, you could set Others Summary to Yes to see the sum of all other members not in the filter. Select No if you do not want All Others data to display.

4

**Relationship Filter and Empty Filter** – When the Relationship Filter is set to Yes, only the members that have data for the measures and time ranges defined in the view will display. When the Relationship Filter is set to No, all members will be displayed. This allows you to see members with and without data for the measures and time ranges defined in the view. You can additionally use the Empty Filter property. In order for the Empty Filter property to be set to Yes, the Relationship Filter property must be set to Yes. The empty filter will remove any columns where no data exists, but that were not removed by the relationship filter. This can occur when there is a level filter on the axis opposite the measure item axis.

5

**Axis Filter** – Use to work with an axis filter on columns:

- Click the Browse button  to add or edit a filter on the columns axis. An Expression window displays for setting up the filter. A pop-up label for this field displays expression criteria for an existing filter.
- Click the "X" button to remove a filter.

## Properties Windows for Individual Measure Items

### Regular Measure Items











Properties - Actual Sales Sales Amount Wk 1 2012 to Wk 37 2012	
1 Name	Data1
2 Caption Expression	[Measure] [From Period Short Desc] [From Year ' ...
3 Type	Regular
4 Measure	Actual Sales Sales Amount
5 Format String	As Is
6 Value	Yes
7 Image	No
8 Conditional Format	No <input type="checkbox"/> Sales Above Goal
Pop-up Expression	Yes <input type="checkbox"/> "Indicator displays for sales over \$5 mi
Hyperlink	No <input type="checkbox"/>
Visible	Yes <input type="checkbox"/>
Filter	Recursive Top Count <input type="checkbox"/> 15
Sort	Descend <input type="checkbox"/>
Total	Total <input type="checkbox"/>

1

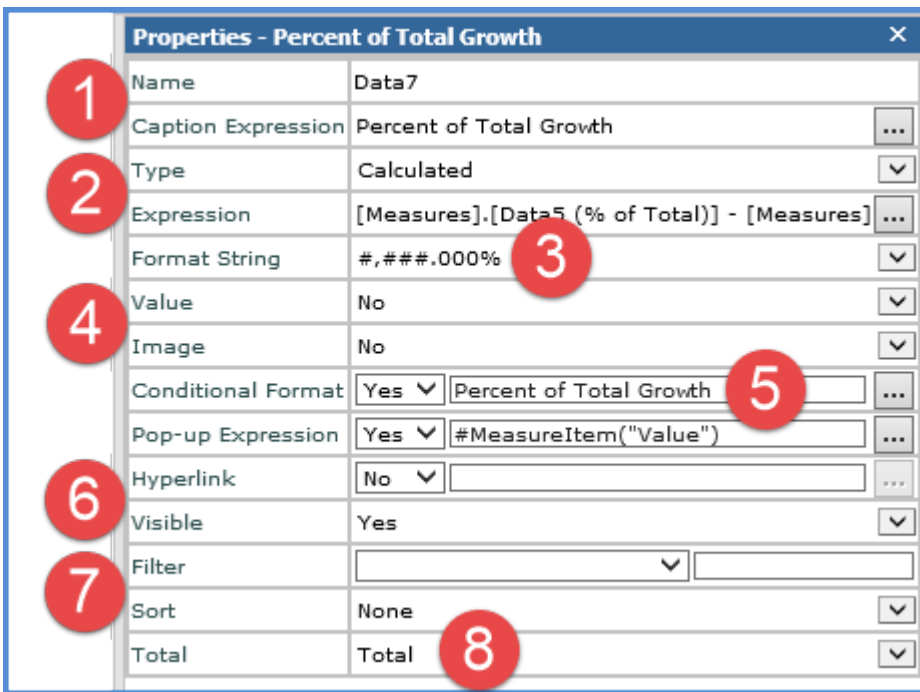
**Name** – The text in this field determines the unique name that Stratum.Viewer will use to identify a measure item in the view. You can edit this field as needed. Default names given to new measure items are DataN. The "N" is a sequential number assigned by Stratum.Viewer to create a unique name. You will be prompted to make corrections to the name if you enter a duplicate name, use any spaces in the name, use too many characters (more than 50), or use invalid characters.

**Caption Expression** - A read only field that shows the expression behind the caption for a measure item. The resolved text generated by the expression creates the caption, which is the text that displays for the measure item in the view and other areas of the application such as view explorer. The Caption Expression window can be accessed for editing the expression by clicking the Browse button next to

	the field.
<b>2</b>	<p><b>Type</b> – This property shows the type of measure item you are working with – either regular, calculated, or distinct calculated. The property will be set to “Regular” if you are inserting or editing a regular measure item.</p> <hr/> <p><b>Note:</b> See the next table for information about calculated and distinct calculated types.</p> <hr/> <p><b>Measure</b> – This field is a read only field that displays the underlying measure you selected when setting up the regular measure item.</p> <ul style="list-style-type: none"> <li>For measure items with time ranges, clicking the Browse button  next to the Measure field opens the Edit Measure Item window. Use that window to edit the measure item's underlying measure or time range. The main Time Range property for a view must be set to Yes for the Properties window to behave in this manner.</li> <li>For measure items without time ranges, clicking the search button  next to the Measure field opens the Select Measure window for editing the underlying measure. The main Time Range property for a view must be set to No for the Properties window to behave in this manner.</li> </ul>
<b>3</b>	<p><b>Format String</b> – Use this drop-down list to apply a format such as decimal places, monetary symbols, commas, or a combination of formatting.</p>
<b>4</b>	<p><b>Value</b> – Determines if the measure item value displays in the Viewer grid. Set to Yes to display value. Set to No to hide the value, for example, in cases where you want to display only the conditional format icon for a measure item.</p> <p><b>Image</b> – This property is used when setting up calculated measure items that display images. See the next table for information about this property.</p>
<b>5</b>	<p><b>Conditional Format</b> – Controls the display of icons, and cell and text formatting for the measure item by applying the conditional format rules. The Browse button  is only enabled when the Conditional Format field is set to Yes. When enabled, you can click the button to access the Select Conditional Format window to edit the conditional format associated with the measure item or create a new one. The name of the selected conditional format displays in the text box left of the  icon.</p>
<b>6</b>	<p><b>Pop-up Expression</b> – Use this property to specify whether the selected measure item has a pop-up label that will display when you hover over the measure item value, indicator, or image. The Browse button  is only enabled when the Pop-up Expression field is set to Yes. When enabled, you can click the button to access the Pop-up Label Expression window to edit the existing expression or create a new one. The active pop-up expression displays in the text box left of the  icon.</p> <p><b>Hyperlink</b> – Choose Yes if you want a hyperlink defined for the cell of a measure item. The Browse button  is only enabled when the Hyperlink field is set to Yes. When enabled, you can click the button to access the Hyperlink Expression window to edit the expression or create a new one. The hyperlink defined displays in the text box left of the  icon.</p>
<b>7</b>	<p><b>Filter and Sort</b> – Use to add, edit, or remove filters and sorts. For filters, select the operator from the drop-down list and enter the value to filter by in the field next to the list. Pop-up labels showing filter criteria will show for the Filter field after a filter has been applied.</p> <p>If your view has levels on the same axis as measure items, these properties will be disabled until you have applied an initial filter or sort via the grid.</p>








<b>8</b>	<p><b>Total</b> – Use to control the type of total that is performed for a measure item. The default setting for all measure items is Total.</p> <ul style="list-style-type: none"> <li>• <b>None</b> – No total will be displayed.</li> <li>• <b>Total</b> – This designation takes into account any underlying calculations for a measure item’s definition when generating Grand Totals, sub-totals, and All Others – such as calculations defined in a measure item expression or associated with a Stratum.Planner calculated value.</li> <li>• <b>Sum</b> – This designation means that Viewer will generate totals by adding the values displayed in measure item detail cells. That summing will be used to generate the Grand Totals, sub-totals, and All Others. This type of total is intended for special cases where you don’t want any of the underlying calculations that Viewer performs to be used when generating total values. You might choose to use a Sum total when a measure item calculation includes an IIF statement, such as a calculation with IF, Then, Else conditions.</li> </ul>
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**Calculated and Distinct Calculated Measure Items**



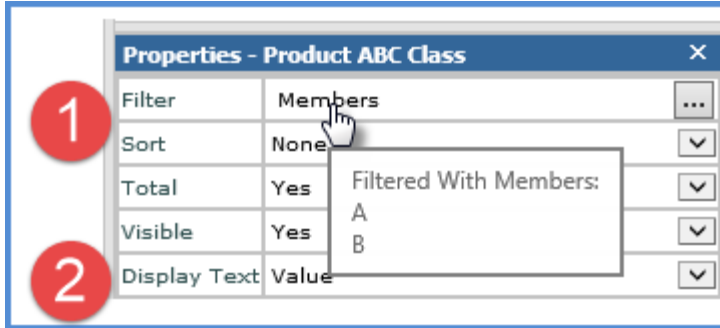
<b>1</b>	<p><b>Name</b> – The text in this field determines the unique name that Stratum.Viewer will use to identify a measure item in the view. You can edit this field as needed. Default names given to new measure items are DataN. The “N” is a sequential number assigned by Stratum.Viewer to create a unique name. You will be prompted to make corrections to the name if you enter a duplicate name, use any spaces in the name, use too many characters (more than 50), or use invalid characters.</p> <p><b>Caption Expression</b> – A read only field that shows the expression behind the caption for a measure item. The resolved text generated by the expression creates the caption, which is the text that displays for the measure item in the view and other areas of the application such as view explorer. The Caption Expression window can be accessed for editing the expression by clicking the Browse button next to the field.</p>
<b>2</b>	<p><b>Type</b> – This property shows the type of measure item you are working with – either regular, calculated, or distinct calculated. The property will be set to “Calculated” or “Distinct Calculated” if you are inserting or editing that type of measure item.</p>




	<p><b>Note:</b> See the previous table for information about regular types.</p> <p><b>Expression</b> – When "Calculated" or "Distinct Calculated" is the measure item type, an Expression field shows in this window. It's a read only field that shows the expression for calculating the measure item. The Expression window can be accessed for editing the expression by clicking the Browse button  next to the field.</p> <p>Note that when you are using a calculated measure item to display images in a view that the expression will determine the location/name of the image file for Stratum.Viewer to display.</p> <ul style="list-style-type: none"> <li>• The image file must reside in the Stratum.Viewer application folders. It is recommended that all custom images reside in a subfolder of the Images folder of the Stratum.Viewer application.</li> <li>• Supported file types for images are *.jpg, *.jpeg, *.png, *.bmp, *.gif, *.tif, and *.tiff.</li> <li>• The image will display according to its original, default size.</li> </ul>
3	<p><b>Format String</b> – Use this drop-down list to apply a format such as decimal places, monetary symbols, commas, or a combination of formatting.</p>
4	<p><b>Value</b> – Determines if the measure item value displays in the Viewer grid. Set to Yes to display value. Set to No to hide the value, for example, in cases where you want to display only the conditional format icon for a measure item.</p> <p><b>Image</b> – This property is used when setting up calculated measure items that display images. You use the Expression window to define the location of the image and then set this property to Yes in order for the defined image to display in the grid. See item 2 above.</p>
5	<p><b>Conditional Format</b> – Controls the display of icons, and cell and text formatting for the measure item by applying the conditional format rules. The Browse button  is only enabled when the Conditional Format field is set to Yes. When enabled, you can click the button to access the Select Conditional Format window to edit the conditional format associated with the measure item or create a new one. The name of the selected conditional format displays in the text box left of the  icon.</p>
6	<p><b>Pop-up Expression</b> – Use this property to specify whether the selected measure item has a pop-up label that will display when you hover over the measure item value, indicator, or image. The Browse button  is only enabled when the Pop-up Expression field is set to Yes. When enabled, you can click the button to access the Pop-up Label Expression window to edit the existing expression or create a new one. The active pop-up expression displays in the text box left of the  icon.</p> <p><b>Hyperlink</b> – Choose Yes if you want a hyperlink defined for the cell of a measure item. The Browse button  is only enabled when the Hyperlink field is set to Yes. When enabled, you can click the button to access the Hyperlink Expression window to edit the expression or create a new one. The hyperlink defined displays in the text box left of the  icon.</p>
7	<p><b>Filter and Sort</b> – Use to add, edit, or remove filters and sorts. For filters, select the operator from the drop-down list and enter the value to filter by in the field next to the list. Pop-up labels showing filter criteria will show for the Filter field after a filter has been applied.</p> <p>If your view has levels on the same axis as measure items, these properties will be disabled until you have applied an initial filter or sort via the grid.</p>
8	<p><b>Total</b> – Use to control the type of total that is performed for a measure item. The default setting for all measure items is Total.</p> <ul style="list-style-type: none"> <li>• <b>None</b> – No total will be displayed.</li> </ul>

- **Total** – This designation takes into account any underlying calculations for a measure item’s definition when generating Grand Totals, sub-totals, and All Others – such as calculations defined in a measure item expression or associated with a Stratum.Planner calculated value.
- **Sum** – This designation means that Viewer will generate totals by adding the values displayed in measure item detail cells. That summing will be used to generate the Grand Totals, sub-totals, and All Others. This type of total is intended for special cases where you don’t want any of the underlying calculations that Viewer performs to be used when generating total values. You might choose to use a Sum total when a measure item calculation includes an IIF statement, such as a calculation with IF, Then, Else conditions.

## Properties Windows for Levels

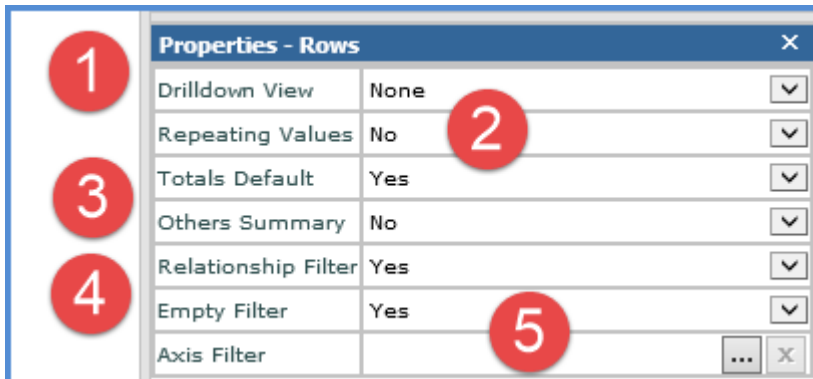


**1 Filter and Sort** - Use to add, edit, or remove filters and sorts.


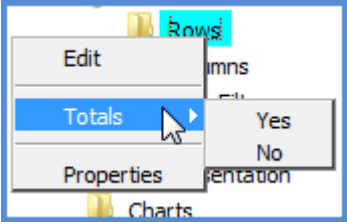

- **Filter** - click the Browse button  to access the [Select Filter Method window](#) and either add or change a filter. If a filter already exists, the filter type displays in this field and a pop-up label shows filter criteria.
- **Sort** - use the list provided to add Ascending or Descending sorts or to change or remove a sort.

**2 Display Text** – This property controls what displays in the first row or column for the level. The default is the level value. You can change it to any of the attribute relationships that have been made available in the view for the level.

## Properties Window for Rows

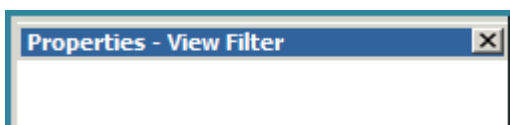


**1 Drilldown View** – Assign a drilldown view if you want to drill from the last level displayed on rows to another view, for example, to a view with related or complimentary data to the originating view. Choose from views that you normally have access to in the application.

<p>2</p>	<p><b>Repeating Values</b> – Use to control whether or not duplicate row values display in the grid. Set the option to Yes if you want to see the following values repeated across the row detail cells in the grid: level display text, level attribute relationships, headings for All Others (if Others Summary is enabled), sub-totals, and grand totals.</p>
<p>3</p>	<p><b>Totals Default</b> – Use to control whether or not Totals display by default for new levels inserted on rows. Leave the property set to Yes if you want all new levels that are inserted on rows to have totals displayed for them. Change to No if you want totals to be disabled for all new levels that you insert on rows. You can customize totals for new and existing levels in other ways using other settings:</p> <ul style="list-style-type: none"> <li>• Change totals for individual levels, one level at a time. Use the "Total" setting in the Properties windows for individual levels to show or hide their totals.</li> <li>• Change totals for all levels on rows at once. Use the "Totals" option on the pop-up menu for the row axis (right-click the rows axis icon ) or by right-clicking the Rows folder in view explorer. Selecting Yes from the menu displays totals for all levels on rows and sets the "Totals Default" to Yes. Selecting No hides totals for all levels on rows and sets the "Totals Default" to No.</li> </ul>  <p><b>Others Summary</b> – Use to control whether or not All Others data displays in rows for filtered levels. Select Yes if you want the "All Others" rows to display. For example, if you have filtered a level by certain members, you could set Others Summary to Yes to see the sum of all other members not in the filter. Select No if you do not want All Others data to display.</p>
<p>4</p>	<p><b>Relationship Filter and Empty Filter</b> – When the Relationship Filter is set to Yes, only the members that have data for the measures and time ranges defined in the view will display. When the Relationship Filter is set to No, all members will be displayed. This allows you to see members with and without data for the measures and time ranges defined in the view. You can additionally use the Empty Filter property. In order for the Empty Filter property to be set to Yes, the Relationship Filter property must be set to Yes. The empty filter will remove any rows where no data exists, but that were not removed by the relationship filter. This can occur when there is a level filter on the axis opposite the measure item axis.</p>
<p>5</p>	<p><b>Axis Filter</b> – Use to work with an axis filter on rows:</p> <ul style="list-style-type: none"> <li>• Click the Browse button  to add or edit a filter on the rows axis. An Expression window displays for setting up the filter. A pop-up label for this field displays expression criteria for an existing filter.</li> <li>• Click the "X" button to remove a filter.</li> </ul>

## Properties Windows for View Filter

There are no properties for this folder in view explorer. If there are levels in the View Filter, they will each have their own properties window.





## Select Filter Method Window



Only the Member List and Named Set options display when the window is accessed from the Expression window:



<b>1</b>	<p><b>Filter Methods</b> - Choose None then click OK if you are removing a filter. To apply or change a filter, select an option and click OK or use the quick filter option noted in item 2.</p> <ul style="list-style-type: none"> <li>• <b>Member List</b> - clicking OK after selecting this option opens the <a href="#">Select</a> or <a href="#">Advanced Select Members window</a>. Search for and select members for the filter.</li> <li>• <b>User List</b> - clicking OK after selecting this option opens the <a href="#">Select User List Filter window</a>. Use the search or filter  tools as aids in finding a list. Optionally click Show Details  after selecting a list to see more information about it before applying it as a filter. Click OK to apply the selected list as a filter.</li> <li>• <b>Named Set</b> - clicking OK after selecting this option opens the <a href="#">Select Named Set Filter window</a>. Select a named set for the filter.</li> <li>• <b>Expression</b> - clicking OK after selecting this option opens the Expression window. Set up an expression for the filter.</li> </ul>
<b>2</b>	<p><b>Quick Filter Field</b> – Perform a quick filter by selecting Member List, using this field to specify the level members, then clicking OK. Separate the values in the field by semicolons and do not use any spaces between the values and semicolons.</p> <p>When using this method and working in a view, you need to refer to members based on the level's</p>

display text. For example, enter member values if the level display text is set to Value or enter member attribute relationships if the level display text is set to one of its attribute relationships. Here is a quick filter specified for three Ship-To Markets. The values entered in the field were Chicago;Dallas;Phoenix because the Ship-To Market display text is set to SMkt City:



**SELECT FILTER METHOD** X

None

Member List

User List

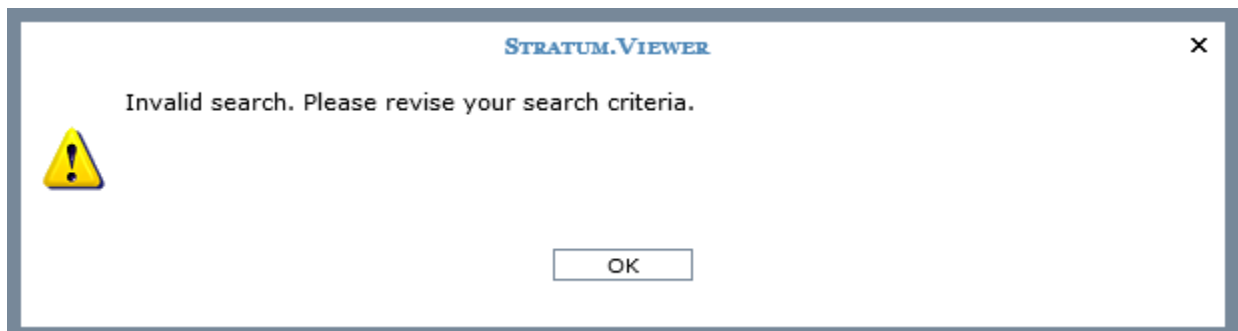
Named Set

Expression

Chicago;Dallas;Phoe

OK Cancel

You will see the following message if you do not refer to members based on their display text setting, if you enter members not applicable to the level, or if you enter members that your role permissions do not permit you to see.



**STRATUM.VIEWER** X

Invalid search. Please revise your search criteria.

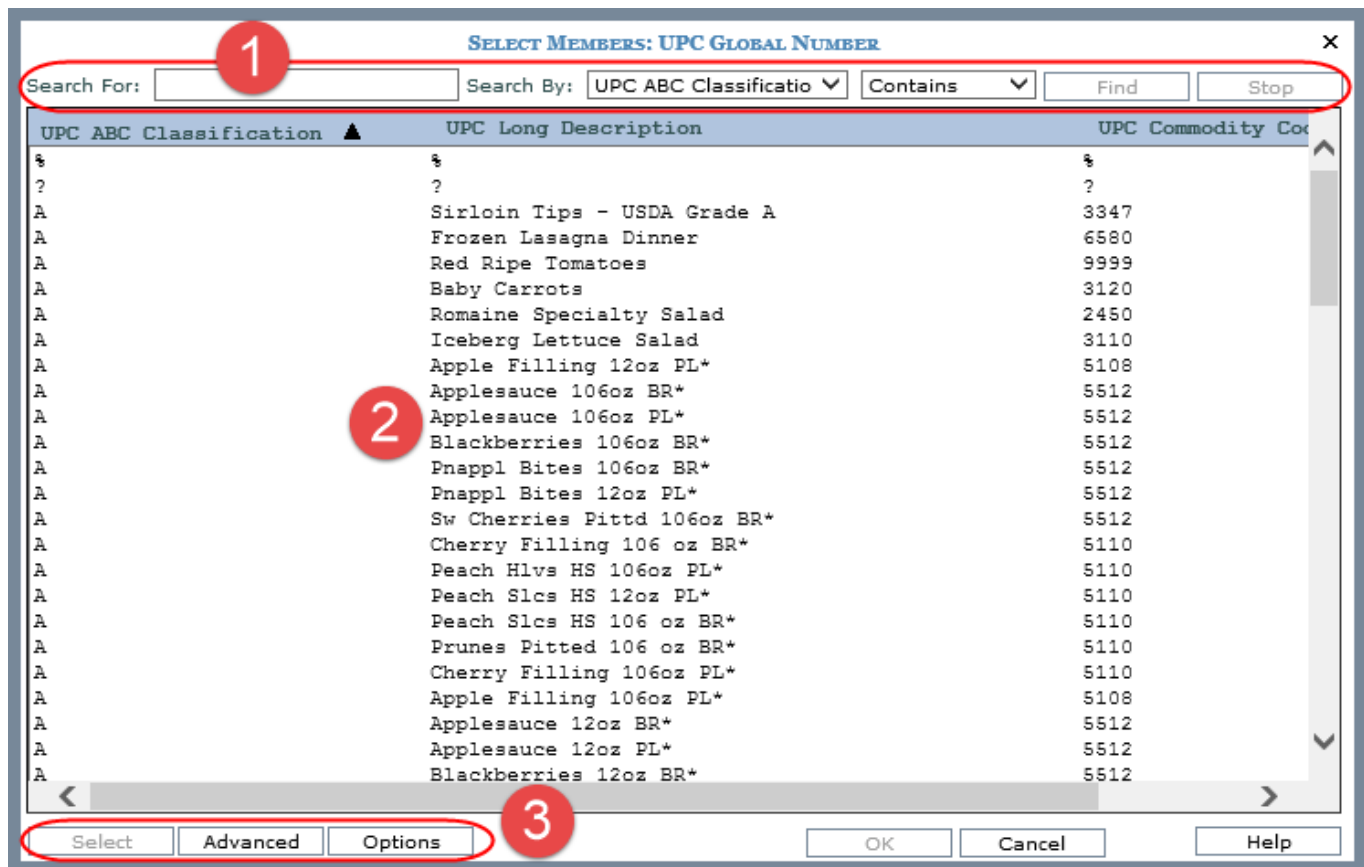
OK

You can enter wildcard criteria in the Quick Filter field. In this example, the Member List option is selected and Product Category has been quick filtered by a wildcard search of %Fruit%. Categories with "Fruit" in their display text were returned by the filter.

The screenshot shows a software interface with a table and a dialog box. The table has columns for Product Category, Sales Amount (Wk 1 2014 to Wk 38 2014), and Sales Amount (Wk 1 2013 to Wk 38 2013). The dialog box, titled 'SELECT FILTER METHOD', has radio buttons for 'None', 'Member List' (selected), 'User List', 'Named Set', and 'Expression'. A text input field contains '%Fruit%'. Red arrows point from the dialog box to the 'Canned Fruit', 'Fresh Fruit', and 'Frozen Fruit Products' rows in the table.

Product Category	Sales Amount Wk 1 2014 to Wk 38 2014	Sales Amount Wk 1 2013 to Wk 38 2013
Canned Fruit	\$1,979,809,747	\$3,431,256,971
Fresh Fruit	\$294,627,014	\$501,706,538
Frozen Fruit Products	\$99,856,357	\$168,670,293
All Others		53
Grand Total		56

## Select Members Window



1

Window is initially populated with all authorized members for the active level. Make selections from the entire list, or execute a search to narrow down the list. Use the search properties to specify the criteria and the parameters by which to search for members to be used in a member list filter or user list.

**Note:** The window is also used when selecting members from the expression window for calculated measure items and when administrators set up roles.

**Search For:** - Enter a value in the Search For field. Multiple searches can be entered by separating them with a semicolon. If the Search For field is left blank, the available list displays all members for the active level.

**Search By:** - Use this drop-down list to select the attribute relationship to perform the search on.

**Contains, Does not contain, Starts With, Equal to, Not Equal to, Greater than, Less than** - Select whether you want your search to contain, not contain, start with, be equal to, not equal to, greater than, or less than the value(s) specified in the search.

**Find** - Click this button to execute the search. The list of available members is refreshed based on the search.

In the following example, we searched for UPC ABC Classification not equal to "a or b" and 19 items were retrieved.

Search For: a;b Search By: UPC ABC Classificatio ▼ Not Equal to ▼ Find Stop

UPC ABC Classification ▲	UPC Long Description	UPC Commodity Code
%	%	%
?	?	?
C	Asparagus	2450
C	Strawberries	4850
C	Orange Juice Conc.	5230
C	Blueberry Filling 106oz PL*	5110
C	Grapefruit Sctn UnS 106oz BR*	5110
C	Mand Org Pcs 106oz BR*	5110
C	Blueberry Filling 106oz BR*	5110
C	Mand Org Pcs 12oz PL*	5110
C	Blueberry Filling 12oz PL*	5110
C	Grapefruit Sctn UnS 12oz BR*	5110
C	Mand Org Pcs 12oz BR*	5110
C	Blueberry Filling 12oz BR*	5110
C	Mand Org Pcs 106oz PL*	5110
C	Navel Oranges	3160
C	Pork Chops - Butterfly	3347
C	Ground Round 90% Lean	3347
C	Sweet Onions, Chopped	9999

2

**Available Selection list** – Use this list to select the members to include in a member list filter, expression, etc. The list area displays the names of the members returned by your search. Multiple selections may be made using Ctrl+Click, and a range of items may be selected using Shift+Click. Select the desired member(s) from the available selection list and click OK.

Columns in this area are sort and drag/drop enabled. In the following example, we clicked the UPC Long Description column and dragged it to the first position. We also clicked the Sort icon to perform the sort on that column in ascending order.

UPC Long Description ▲	UPC ABC Classification	UPC Commodity Code
%	%	%
?	?	?
Asparagus	C	2450
Blueberry Filling 106oz BR*	C	5110
Blueberry Filling 106oz PL*	C	5110
Blueberry Filling 12oz BR*	C	5110
Blueberry Filling 12oz PL*	C	5110
Grapefruit Sctn UnS 106oz BR*	C	5110
Grapefruit Sctn UnS 12oz BR*	C	5110
Ground Round 90% Lean	C	3347
Mand Org Pcs 106oz BR*	C	5110
Mand Org Pcs 106oz PL*	C	5110
Mand Org Pcs 12oz BR*	C	5110
Mand Org Pcs 12oz PL*	C	5110
Navel Oranges	C	3160
Orange Juice Conc.	C	5230
Pork Chops - Butterfly	C	3347
Strawberries	C	4850
Sweet Onions, Chopped	C	9999

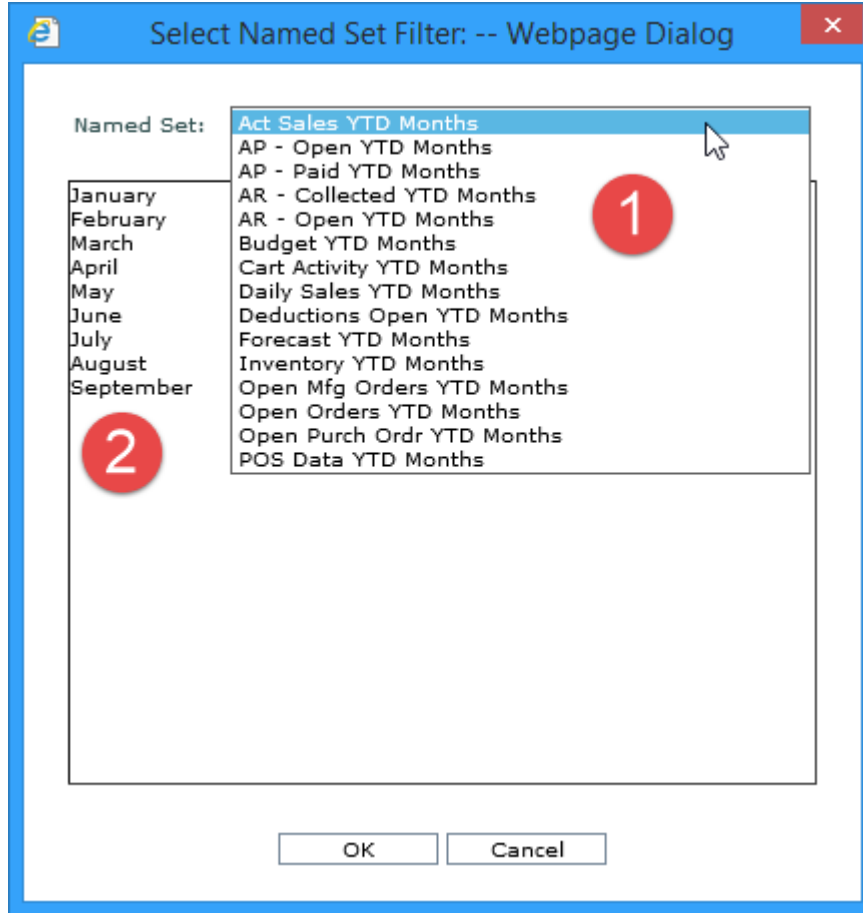
3

**Advanced** – Click to access the Advanced Select Members window if you prefer to use that advanced version of the window to search for, select, or remove members. The advanced window is helpful when working with levels for which a large amount of members exist. The Advanced button may not display depending on administrative settings for the level. Administrators determine which member selection windows are available by level.

**Options** – Use to change the information and number of results displayed in the window.



## Select Named Set Filter Window



1	<p><b>Named Set</b> – Select a named set from this list to filter a level from a single-level time hierarchy by its YTD periods. Choose a type applicable to the measure items in your view. For example, an Actual Sales named set if there are Actual Sales measure items in the view.</p> <hr/> <p><b>Note:</b> The list will be disabled and a "No named sets available" message will display in the window for levels that don't have named sets.</p>
2	<p><b>Named Set Members</b> – The time members that make up the named set will display in this section after you select a named set from the above list.</p>

## Select User List Filter Window

### Main Window Sections

1

SELECT USER LIST FILTER: CUSTOMER SOLD-TO

Selected User List: Customer Sold-To Canada

4

Name ▲	Type	Owner	Last Used
Customer Sold-To Canada	Personal	Mary Lancaster	06/26/2014 23:18:02
Customer Sold-To Chicago	Personal	Carrie Jacobs	03/28/2014 09:50:41
Customer Sold-To Dallas	Global	Karen Jones	05/16/2014 14:33:45
Customer Sold-To Philadelphia	Global	Mary Lancaster	03/27/2014 11:25:14
Customer Sold-To Phoenix	Personal	Karen Jones	04/17/2014 12:39:45

2

1 to 5 of 5    ⏪ ⏩ 1 ⏪ ⏩

3

OK    Cancel

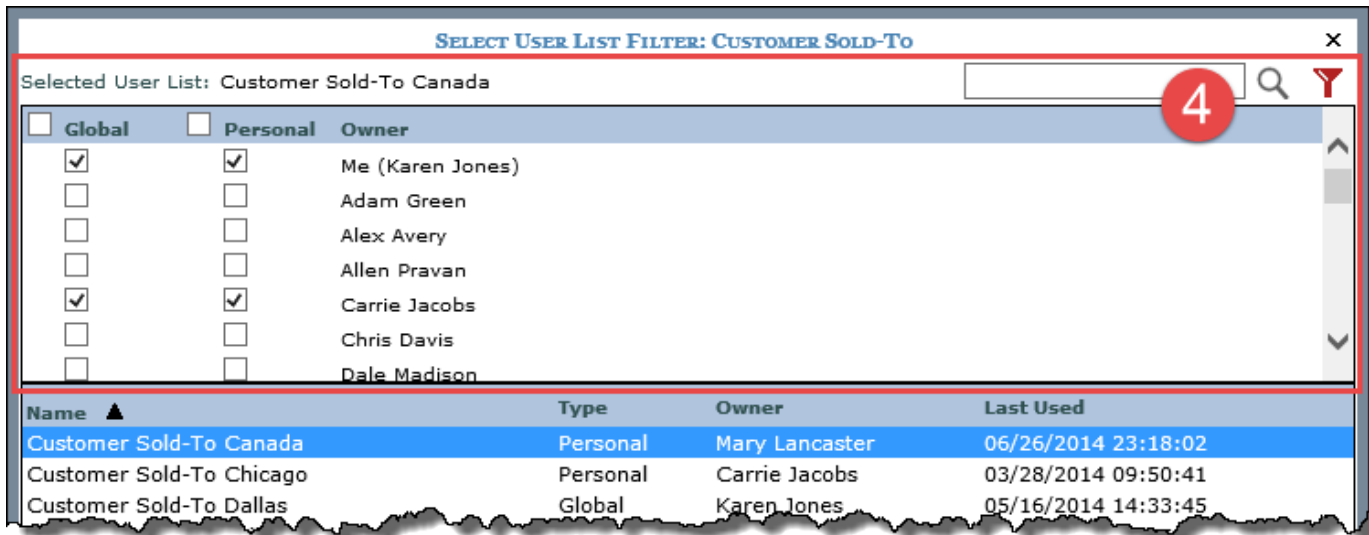
4


1	<p><b>Selected User List</b> – The name of the actively selected list displays here.</p>
2	<p><b>Available User Lists</b> – Click a list then OK to apply the list as a filter.</p> <ul style="list-style-type: none"> <li>This is a list of all user lists that meet search and filter criteria. You can use search to find a user list with a particular name or use the filter tool to look up lists of only certain users (See <a href="#">Search and Filter Features</a>). You can use the <a href="#">Show Details</a> section to look up list properties and members.</li> <li>To sort the displayed lists, click the Name, Type, Owner, or Last Used column heading. Click a sort icon to change between ascending ▲ and descending ▼ order. To rearrange columns in the section, click a column heading, drag it before or after another column heading, and drop it at the new location.</li> <li>At the bottom of this section (you may need to scroll down), this is a count of how many lists are displayed in the window. There are paging arrows to move between pages of lists. Arrows are active only when more lists exist than can be displayed in a single page of this section.</li> </ul> <p>1 to 27 of 27    ⏪ ⏩ 1 ⏪ ⏩</p>


<b>3</b>	<p><b>OK</b> – Click OK to apply the user list selection made in this window and to close the window.</p> <p><b>Cancel</b> – Click Cancel to close the window without applying your selection.</p>
<b>4</b>	<p>See the next two sections for information about the search, filter, and detail lookup tools in this window.</p>

### Search and Filter Features

Optionally use the search and/or filter features (section marked '4' in following image) to look for particular user lists.

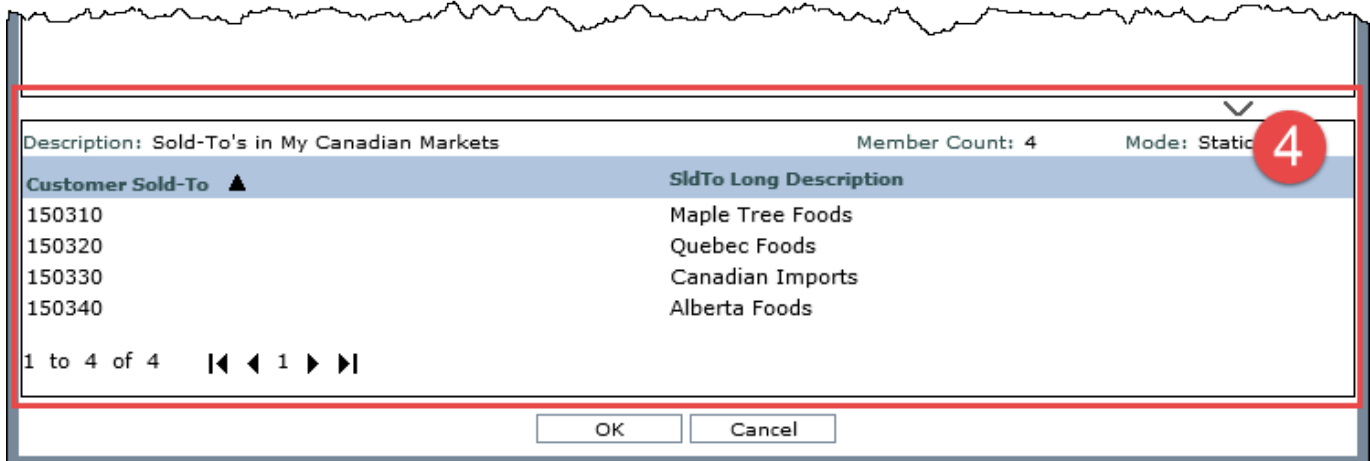


- **Search** – Enter all or part of the name(s) of the list(s) you are searching for and then click the Search button to execute the search.
- **Filter** – Click the provided button  to use the filter feature. It acts as a toggle to show or hide the filter feature. Use the Global and Personal checkboxes to the left of a user's name to indicate whose lists you want to see (users with selected checkboxes will be included in filter results). The checkboxes next to the Global and Personal headings are toggles that select or deselect all Global or Personal lists of all users at one time (for example, if the Personal heading checkbox is selected, all Personal lists of all users will display in the window). At the bottom of the filter section (you may need to scroll down), there is a count of users. There are paging arrows to move between pages of users. Arrows are active only when more users exist than can be displayed in a single page of this section.

**Note:** The filter toggle will be red  if a filter has been applied. If you are using the filter section and then access the details section of the window, the filter section will close automatically.

## Show Details Feature

Optionally use this section to view details about the list that is actively selected in the window. Select a list and then click the Show Details ^ button. Click the Hide Details v button to hide the section. You can see the members in the list, the list description, count of members in the list, and the list mode (Static or Dynamic).



- Information that displays for list members depends on whether you accessed the window from a view or the Role Maintenance window. If accessed from a view, the section displays attribute relationships available for the level in the view. If accessed from the Role Maintenance window, the section displays attribute relationships as defined by administrative settings in the Select Members Options window.

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**Note:** Only members your role permits you to access will display. The section will be blank if your role doesn't permit you to access any of the list members.

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- To sort detail information, click the heading for any column of information displayed for the members. Click a sort icon to change between ascending ▲ and descending ▼ order. To rearrange columns in the section, click a column heading, drag it before or after another column heading, and drop it at the new location.
- At the bottom of the details section (you may need to scroll down), this is a count of how many members are in the list. There are paging arrows to move between pages of members. Arrows are active only when more members exist than can be displayed in a single page of this section.

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**Note:** If you are using the details section and then access the filter section of the window, the details section will close automatically.

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## Advanced Concepts

### Axis Filter Behavior When Levels are on Opposite Axis

Axis filters tend to be used in views where no levels exist on the axis opposite from the axis filter. That tendency is due to the basic nature of axis filters -- they take into account overall measure item totals for objects (level members) that are on the same axis as the axis filter. Also, the axis filter disregards any filtering impact that levels on the opposite axis have on the measure items and objects. The example that follows shows what to expect from an axis filter in a view with levels on the axis opposite the axis filter.

The following view has levels on rows and columns. Additionally there is a filter on the level in columns that returns one member of the Sales Director level.

View Name: <i>Axis Filters Example 1</i>						
View Filter						
<b>T Sales Dir &gt;&gt;</b>	Steve Mentas					
<u>Ship-To Market City</u>	Sales Amount after Returns Q1 to Q3 14	Sales Units after Returns Q1 to Q3 14	ASP Q1 to Q3 14	Sales Amount after Returns Q1 to Q3 13	Sales Units after Returns Q1 to Q3 13	ASP Q1 to Q3 13
<a href="#">Buffalo</a>	\$114,641,854	2,234,182	\$51	\$196,876,407	3,143,917	\$62
<a href="#">Calgary</a>	\$57,381,046	1,315,652	\$44	\$98,721,363	1,868,353	\$53
<a href="#">Chicago</a>	\$76,373,335	1,524,738	\$50	\$130,499,511	2,101,447	\$62
<a href="#">Dallas</a>	\$164,838,778	3,258,055	\$51	\$284,071,921	4,601,809	\$61
<a href="#">Phoenix</a>	\$54,475,771	1,070,463	\$51	\$93,574,570	1,513,328	\$62
<a href="#">Pittsburgh</a>	\$31,274,349	629,490	\$50	\$51,927,462	847,681	\$61
<a href="#">Quebec</a>	\$172,659,668	3,290,846	\$53	\$301,599,661	4,750,837	\$63
<a href="#">Raleigh-Durham</a>	\$114,740,214	2,182,747	\$53	\$195,692,040	3,074,005	\$63
<a href="#">Seattle</a>	\$47,550,283	1,014,939	\$47	\$81,269,831	1,437,470	\$56
<a href="#">St Louis</a>	\$39,336,991	800,286	\$49	\$67,101,515	1,104,388	\$60
<a href="#">St. John</a>	\$79,861,356	1,629,895	\$49	\$133,880,862	2,249,995	\$59
<a href="#">Winnipeg</a>	\$133,698,869	2,611,061	\$51	\$232,572,343	3,734,308	\$62
All Others						
<b>Grand Total</b>	<b>\$1,086,832,514</b>	<b>21,562,356</b>	<b>\$51</b>	<b>\$1,867,787,486</b>	<b>30,427,538</b>	<b>\$61</b>

An axis filter is going to be applied to the row axis. The filter is meant to return members from the currently drilled to level, Ship-To Market City, that meet the following conditions:

- Sales Units after Returns Q1 to Q3 14 that are greater than 1,500,000
- ASP Q1 to Q3 14 that are greater than or equal to \$50

Here is the view after the axis filter has been applied. The Ship-To Market Cities that meet the axis filter conditions are Phoenix, Pittsburgh, Seattle, and Winnipeg. Keep in mind that the axis filter disregards the filter effect that the Sales Director member has on the measure items and rows. The axis filter considers the overall measure item totals for members of the Ship-To Market City level. If you were to hide the Sales Director level, you would see why these four cities were returned -- their overall measure item totals meet both of the measure item conditions that were specified in the axis filter (see the second image that follows).

**View Name: Axis Filters Example 1**

**View Filter**  
 [Measures].[Data17 (Sales Units after Returns Q1 to Q3 14)] > 1500000 AND [Measures].[Data8 (ASP Q1 to Q3 14)] > 50

**Sales Dir >>** Steve Mentas

Ship-To Market City	Sales Amount after Returns Q1 to Q3 14	Sales Units after Returns Q1 to Q3 14	ASP Q1 to Q3 14	Sales Amount after Returns Q1 to Q3 13	Sales Units after Returns Q1 to Q3 13	ASP Q1 to Q3 13
Phoenix	\$54,475,771	1,070,463	\$51	\$93,574,570	1,513,328	\$62
Pittsburgh	\$31,274,349	629,490	\$50	\$51,927,462	847,681	\$61
Seattle	\$47,550,283	1,014,939	\$47	\$81,269,831	1,437,470	\$56
Winnipeg	\$133,698,869	2,611,061	\$51	\$232,572,343	3,734,308	\$62
All Others	\$819,833,241	16,236,402	\$51	\$1,408,443,280	22,894,751	\$61
<b>Grand Total</b>	<b>\$1,086,832,514</b>	<b>21,562,356</b>	<b>\$51</b>	<b>\$1,867,787,486</b>	<b>30,427,538</b>	<b>\$61</b>

Here is the view with Sales Director hidden. You can see that Phoenix, Pittsburgh, Seattle, and Winnipeg each have overall more than 1,500,000 sales units after returns for Q1 to Q3 of 2014 and each have overall average selling prices greater than or equal to \$50 for Q1 to Q3 of 2014.

**View Name: Axis Filters Example 1**

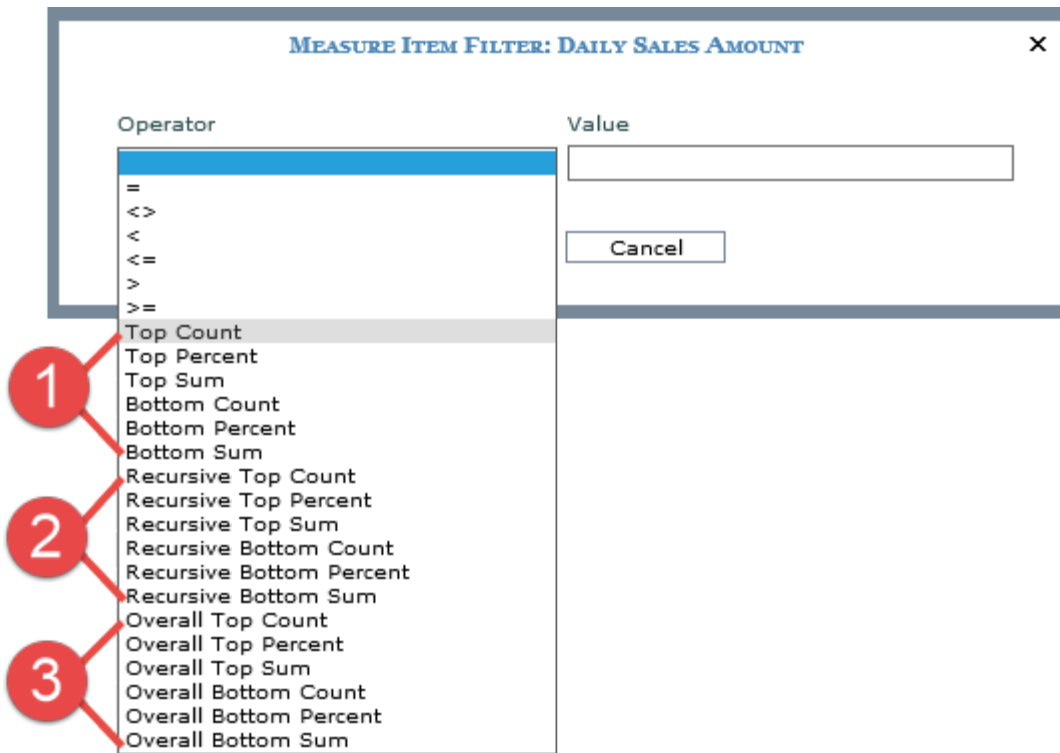
**View Filter**

Ship-To Market City	Sales Amount after Returns Q1 to Q3 14	Sales Units after Returns Q1 to Q3 14	ASP Q1 to Q3 14	Sales Amount after Returns Q1 to Q3 13	Sales Units after Returns Q1 to Q3 13	ASP Q1 to Q3 13
Phoenix	\$213,980,453	4,236,117	\$51	\$368,792,840	5,962,322	\$62
Pittsburgh	\$80,319,387	1,566,455	\$51	\$140,392,735	2,226,122	\$63
Seattle	\$213,376,352	4,220,801	\$51	\$360,956,298	5,911,416	\$61
Winnipeg	\$270,579,255	5,251,312	\$52	\$465,832,841	7,412,240	\$63
All Others	\$2,696,027,091	60,247,090	\$45	\$4,629,177,345	85,234,653	\$54
<b>Grand Total</b>	<b>\$3,474,282,539</b>	<b>75,521,775</b>	<b>\$46</b>	<b>\$5,965,152,058</b>	<b>106,746,754</b>	<b>\$56</b>

## Comparison of Top / Bottom, Recursive, and Overall Filters

Measure item filters in Stratum.Viewer include sets of predefined Stratum filters – Top / Bottom, Recursive Top / Bottom, and Overall Top / Bottom. They can be applied as a Count, Sum, or Percent filter. They are meant to be used in views with multiple levels where you have drilled down through levels by header (which is done by clicking on level names). [Examples in the next section](#) illustrate how the different types of filters behave in views.

1. **Top and Bottom** – A filter that is applied only to the most detailed subtotal level displayed in a view. You will see the top or bottom performers at that subtotal level in relation to **every** member that's on display in **every** prior level.
2. **Recursive Top / Bottom** – A filter that is applied to all subtotal levels displayed in a view and that takes into account the top or bottom performing members from all prior levels.
3. **Overall Top / Bottom** – A filter that is applied at the most detailed level displayed in a view to give you the overall top performers based on all the levels displayed.



Predefined Stratum filters are intended to be used in views where multiple levels exist on the axis opposite of measure items. In the following examples, measure items are on columns so the filters will impact levels on rows.

We will drill down on levels by header in the following examples to illustrate the difference between various predefined Stratum filters. Drilling down by header is done by clicking the names of levels in these multi-level views.

### Example 1 – “Count” Filters

Here is a view with no filtering applied to its measure items and no other levels drilled to yet.

<a href="#">Ship-To Market</a>	<b>SMkt Long Description</b>	Daily Sales Amounts Wk 1 to Wk 30 2014	Daily Sales Units Wk 1 to Wk 30 2014
<a href="#">100</a>	Chicago	\$879,979	35,281
<a href="#">112</a>	Buffalo	\$1,088,461	45,023
<a href="#">115</a>	Dallas	\$811,920	31,419
<a href="#">123</a>	St Louis	\$1,366,502	55,631
<a href="#">153</a>	Phoenix	\$607,924	21,315
<a href="#">171</a>	Seattle	\$574,384	21,557
<a href="#">172</a>	Raleigh-Durham	\$875,126	35,274
<a href="#">185</a>	Philadelphia	\$678,110	26,203
<a href="#">187</a>	Pittsburgh	\$251,223	9,138
<a href="#">207</a>	Quebec QC	\$1,141,740	45,591
<a href="#">229</a>	Calgary AB	\$655,085	26,769
<a href="#">249</a>	Winnipeg MB	\$853,129	31,875
<a href="#">296</a>	St. John NB	\$291,324	11,763
<b>Grand Total</b>		<b>\$10,074,906</b>	<b>396,838</b>



The next image shows the view after drilling down by header to the Product Category level. All of the Product Categories for all Ship-To Markets are displayed.

See the next three images for illustrations of how the view results will vary depending on whether a Top, Recursive, or Overall Count filter was applied to the view.

<a href="#">Ship-To Market</a>	<b>SMkt Long Description</b>	<a href="#">Product Category</a>	Daily Sales Amounts Wk 1 to Wk 30 2014	Daily Sales Units Wk 1 to Wk 30 2014
<a href="#">100</a>	Chicago	<a href="#">Fresh Vegetables</a>	\$176,459	7,817
		<a href="#">Canned Fruit</a>	\$351,386	14,467
		<a href="#">Pork</a>	\$57,620	1,901
		<a href="#">Beef</a>	\$23,096	1,063
		<a href="#">Fresh Fruit</a>	\$136,662	6,612
		<a href="#">Frozen Fruit Products</a>	\$6,471	181
		<a href="#">Frozen Prepared Dinners</a>	\$128,284	3,240
<a href="#">112</a>	Buffalo	<a href="#">Fresh Vegetables</a>	\$140,859	6,023
		<a href="#">Canned Fruit</a>	\$601,066	26,153
		<a href="#">Pork</a>	\$79,821	2,964
		<a href="#">Beef</a>	\$37,514	1,389
		<a href="#">Fresh Fruit</a>	\$109,279	5,196
		<a href="#">Frozen Fruit Products</a>	\$11,274	334
		<a href="#">Frozen Prepared Dinners</a>	\$108,647	2,962
<a href="#">115</a>	Dallas	<a href="#">Fresh Vegetables</a>	\$117,708	5,710
		<a href="#">Canned Fruit</a>	\$292,976	11,012

## Top Count Results

Here's what the view looks like after applying a Top 3 Count filter to Daily Sales Units. Since Top Count filters are applied only to the most detailed subtotal level displayed in a view, only the top 3 Product Categories for **every** Ship-To Market are displayed.

The screenshot shows a software interface with a table of sales data. At the top, there are navigation icons and a status bar indicating '1 to 25 of 40' and '1 to 2 of 2'. Below the navigation is a 'View Name' field set to 'Top N Count Multiple Levels of Analysis' and a 'View Filter' dropdown. The table has four columns: 'Ship-To Market', 'SMkt Long Description', 'Product Category', and 'Daily Sales Units Wk 1 to Wk 30 2014'. A red box highlights the 'Daily Sales Units' column header and a 'Top Count 3' filter box. Another red box highlights the first three rows of product categories for each ship-to market, demonstrating the 'Top 3 Count' filter applied to the 'Daily Sales Units' column.

Ship-To Market	SMkt Long Description	Product Category	Daily Sales Amounts Wk 1 to Wk 30 2014	Daily Sales Units Wk 1 to Wk 30 2014
100	Chicago	Canned Fruit	\$351,386	14,467
		Fresh Vegetables	\$176,459	7,817
		Fresh Fruit	\$136,662	6,612
112	Buffalo	Canned Fruit	\$601,066	26,153
		Fresh Vegetables	\$140,859	6,023
		Fresh Fruit	\$109,279	5,196
115	Dallas	Canned Fruit	\$292,976	11,012
		Fresh Vegetables	\$117,708	5,710
		Frozen Prepared Dinners	\$173,301	4,762
123	St Louis	Canned Fruit	\$1,010,252	42,698
		Fresh Vegetables	\$128,965	5,711
		Fresh Fruit	\$58,664	2,466
153	Phoenix	Canned Fruit	\$251,995	8,625
		Fresh Vegetables	\$105,296	4,344
		Fresh Fruit	\$60,009	3,135
171	Seattle	Canned Fruit	\$224,771	7,631
		Fresh Fruit	\$93,038	4,630
		Fresh Vegetables	\$82,698	3,688
172	Raleigh-Durham	Canned Fruit	\$476,031	19,693
		Fresh Fruit	\$114,898	5,356
		Fresh Vegetables	\$75,352	3,812
185	Philadelphia	Canned Fruit	\$416,695	17,542
		Fresh Vegetables	\$57,181	2,201
		Fresh Fruit	\$49,388	2,095
187	Pittsburgh	Canned Fruit	\$77,387	2,281

### Recursive Top Count Results

Here's what the view looks like when you change the filter to a Recursive Top 3 Count. Since Recursive Count filters are applied to all subtotal levels displayed in a view, only the top 3 Product Categories from each of the top 3 Ship-To Markets are displayed.

View Name: *Top N Count Multiple Levels of Analysis*  
View Filter

Recursive Top Count 3

Ship-To Market	SMkt Long Description	Product Category	Daily Sales Amounts Wk 1 to Wk 30 2014	Daily Sales Units Wk 1 to Wk 30 2014
123	St Louis	Canned Fruit	\$1,010,252	42,698
		Fresh Vegetables	\$128,965	5,711
		Fresh Fruit	\$58,664	2,466
207	Quebec QC	Canned Fruit	\$635,903	25,666
		Fresh Vegetables	\$144,927	6,275
		Fresh Fruit	\$99,829	5,655
112	Buffalo	Canned Fruit	\$601,066	26,153
		Fresh Vegetables	\$140,859	6,023
		Fresh Fruit	\$109,279	5,196
<b>Grand Total</b>			<b>\$2,929,745</b>	<b>125,844</b>

### Overall Top Count Results

Here's what the view looks like when you change the filter to an Overall Top 3 Count. Since Overall Top Count filters are applied to only the most detailed level displayed in the view, only the top 3 Ship-to Market/Product Category combinations in terms of overall sales units are displayed.


View Name: *Top N Count Multiple Levels of Analysis*  
View Filter

Overall Top Count 3

Ship-To Market	SMkt Long Description	Product Category	Daily Sales Amounts Wk 1 to Wk 30 2014	Daily Sales Units Wk 1 to Wk 30 2014
123	St Louis	Canned Fruit	\$1,010,252	42,698
112	Buffalo	Canned Fruit	\$601,066	26,153
207	Quebec QC	Canned Fruit	\$635,903	25,666
<b>Grand Total</b>			<b>\$2,247,221</b>	<b>94,517</b>

## Example 2 – “Percent” Filters

Here is a view with no filtering applied to its measure items and no other levels drilled to yet.

 <span style="float: right;">1 to 23 of 23   1 to 6 of 6</span>						
<span>View Name: <i>Top 11 Percent Multiple Levels of Analysis</i></span>						
<span>View Filter</span>						
<span>▼ Year Based &gt;&gt;</span>		<span>Current Year</span>		<span>Last Year</span>		<span>Grand Total</span>
<span>▼ Customer Parent</span>		<span>Actual Sales Amount</span>	<span>Actual Sales Units</span>	<span>Actual Sales Amount</span>	<span>Actual Sales Units</span>	<span>Actual Sales Amount</span>
<a href="#">Wilder Foods</a>	\$988,190,296	20,784,963	\$1,945,532,956	40,614,753	\$2,933,723,251	
<a href="#">Sumpter Distribution</a>	\$268,517,849	4,882,917	\$542,787,394	9,700,909	\$811,305,243	
<a href="#">St Louis Dist Inc</a>	\$32,516,509	539,063	\$69,144,235	1,098,868	\$101,660,744	
<a href="#">Southwest Inc</a>	\$44,557,893	723,721	\$90,696,698	1,453,994	\$135,254,591	
<a href="#">Smith Inc</a>	\$31,539,124	533,642	\$63,012,323	1,054,314	\$94,551,446	
<a href="#">Quebec Foods</a>	\$38,144,729	587,609	\$73,453,037	1,131,060	\$111,597,766	
<a href="#">Prestwick Inc</a>	\$64,239,197	1,112,737	\$132,850,579	2,253,739	\$197,089,776	
<a href="#">Penn Brands</a>	\$76,477,776	1,219,030	\$153,320,082	2,407,532	\$229,797,858	
<a href="#">Packingham Corp</a>	\$33,005,636	535,474	\$65,864,346	1,042,991	\$98,869,981	
<a href="#">Pacific Corp</a>	\$28,873,974	464,822	\$55,495,871	889,367	\$84,369,845	
<a href="#">Oliveri</a>	\$113,868,098	2,128,039	\$229,817,815	4,222,725	\$343,685,913	
<a href="#">NY Foods</a>	\$34,081,846	543,282	\$65,224,607	1,042,132	\$99,306,453	
<a href="#">Montelissi</a>	\$25,772,379	427,196	\$51,695,819	830,525	\$77,468,197	
<a href="#">Midwest Providers</a>	\$62,545,804	1,022,632	\$122,908,486	1,976,354	\$185,454,290	
<a href="#">Maple Tree</a>	\$28,714,464	476,372	\$56,066,296	900,162	\$84,780,760	
<a href="#">Harrington's</a>	\$432,533,742	6,738,617	\$849,596,667	13,102,262	\$1,282,130,409	
<a href="#">Good Foods, Inc.</a>	\$356,819,117	5,337,602	\$709,963,424	10,585,136	\$1,066,782,542	
<a href="#">Dallas Food Service</a>	\$31,312,694	518,351	\$62,533,410	1,026,362	\$93,846,104	
<a href="#">Chicagos Finest</a>	\$42,011,896	657,269	\$83,871,702	1,285,344	\$125,883,598	
<a href="#">Canadian Imports Inc</a>	\$34,835,640	569,798	\$67,498,896	1,095,843	\$102,334,536	
<a href="#">Auburn Providers</a>	\$26,644,294	435,214	\$54,442,984	882,992	\$81,087,278	
<a href="#">Alberta Foods</a>	\$31,714,545	515,296	\$63,950,442	1,029,967	\$95,664,988	
<b>Grand Total</b>	<b>\$2,826,917,501</b>	<b>50,753,647</b>	<b>\$5,609,728,068</b>	<b>99,627,330</b>	<b>\$8,436,645,569</b>	

The next image shows the view after drilling down by header to the Product Category level. All of the Product Categories for all Customer Parents are displayed.

See the next three images for illustrations of how the view results will vary depending on whether a Bottom, Recursive, or Overall Percent filter was applied to the view.

<span style="float: right;">1 to 25 of 155   1 to 6 of 6</span>							
<span>View Name: <i>Top 11 Percent Multiple Levels of Analysis</i></span>							
<span>View Filter</span>							
	<span>▼ Year Based &gt;&gt;</span>	<span>Current Year</span>		<span>Last Year</span>		<span>Grand Total</span>	
<span>▼ Customer Parent</span>	<span>Product Category</span>	<span>Actual Sales Amount</span>	<span>Actual Sales Units</span>	<span>Actual Sales Amount</span>	<span>Actual Sales Units</span>	<span>Actual Sales Amount</span>	<span>Actual Sales Amount</span>
<a href="#">Wilder Foods</a>	<a href="#">Fresh Vegetables</a>	\$43,360,536	858,095	\$88,116,887	1,720,820	\$131,477,422	
	<a href="#">Canned Fruit</a>	\$837,969,453	18,294,844	\$1,637,856,034	35,613,655	\$2,475,825,487	
	<a href="#">Pork</a>	\$18,353,016	270,925	\$37,585,226	546,034	\$55,938,242	
	<a href="#">Beef</a>	\$14,294,909	223,181	\$30,083,825	470,176	\$44,378,734	
	<a href="#">Fresh Fruit</a>	\$30,549,965	615,023	\$61,542,687	1,227,553	\$92,092,652	
	<a href="#">Frozen Fruit Products</a>	\$11,211,182	167,515	\$20,174,836	295,269	\$31,386,018	
	<a href="#">Frozen Prepared Dinners</a>	\$32,451,236	355,379	\$70,173,460	741,247	\$102,624,696	
<a href="#">Sumpter Distribution</a>	<a href="#">Fresh Vegetables</a>	\$49,470,236	980,596	\$100,845,734	1,966,132	\$150,315,969	
	<a href="#">Canned Fruit</a>	\$94,441,475	1,997,978	\$183,758,138	3,880,872	\$278,199,613	
	<a href="#">Pork</a>	\$16,651,792	246,089	\$33,591,090	485,748	\$50,242,882	
	<a href="#">Beef</a>	\$19,662,029	299,999	\$39,082,548	612,294	\$58,744,576	
	<a href="#">Fresh Fruit</a>	\$39,025,185	772,591	\$77,686,820	1,520,121	\$116,712,005	
	<a href="#">Frozen Fruit Products</a>	\$13,930,898	203,919	\$28,866,570	417,264	\$42,797,468	
	<a href="#">Frozen Prepared Dinners</a>	\$35,336,235	381,743	\$78,956,494	818,477	\$114,292,730	
<a href="#">St Louis Dist Inc</a>	<a href="#">Fresh Vegetables</a>	\$6,291,713	135,100	\$13,264,067	281,084	\$19,555,780	
	<a href="#">Canned Fruit</a>	\$7,920,866	113,929	\$14,965,889	215,057	\$22,886,755	
	<a href="#">Pork</a>	\$2,410,875	35,698	\$4,947,371	72,095	\$7,358,246	
	<a href="#">Beef</a>	\$3,456,106	54,712	\$6,186,792	95,583	\$9,642,897	
	<a href="#">Fresh Fruit</a>	\$5,223,177	112,287	\$10,541,104	219,420	\$15,764,281	
	<a href="#">Frozen Fruit Products</a>	\$2,635,239	38,886	\$5,085,008	74,818	\$7,720,247	
	<a href="#">Frozen Prepared Dinners</a>	\$4,578,534	48,450	\$14,154,004	140,811	\$18,732,538	
<a href="#">Southwest Inc</a>	<a href="#">Fresh Vegetables</a>	\$7,236,723	148,119	\$14,120,725	280,834	\$21,357,448	
	<a href="#">Canned Fruit</a>	\$24,765,482	374,546	\$48,622,971	734,442	\$73,388,453	

## Bottom Percent Results

Here's what the view looks like after applying a Bottom 10 Percent filter to Actual Sales Amount. The bottom 10% of Product Categories for **every** Customer Parent is displayed. The Bottom Percent filter was applied only to the most detailed subtotal level, Product Category.

View Name: *Top 11 Percent Multiple Levels of Analysis*  
View Filter

Customer Parent	Product Category	Actual Sales Amount	Actual Sales Units	Last Year Actual Sales Amount	Last Year Actual Sales Units
Wilder Foods	Frozen Fruit Products	\$11,211,182	167,515	\$20,174,836	295,269
	Beef	\$14,294,909	223,181	\$30,083,825	470,176
	Pork	\$18,353,016	270,925	\$37,585,226	546,034
	Fresh Fruit	\$30,549,965	615,023	\$61,542,687	1,227,553
	Frozen Prepared Dinners	\$32,451,236	355,379	\$70,173,460	741,247
Sumpter Distribution	Frozen Fruit Products	\$13,930,898	203,919	\$28,866,570	417,264
	Pork	\$16,651,792	246,089	\$33,591,090	485,748
St Louis Dist Inc	Pork	\$2,410,875	35,698	\$4,947,371	72,095
	Frozen Fruit Products	\$2,635,239	38,886	\$5,085,008	74,818
Southwest Inc	Frozen Fruit Products	\$953,501	13,993	\$2,281,223	32,925
	Pork	\$1,473,736	21,228	\$2,787,021	39,550
	Beef	\$1,742,478	28,444	\$4,396,268	69,043
	Frozen Prepared Dinners	\$2,944,235	31,441	\$6,645,070	68,310
Smith Inc	Frozen Fruit Products	\$467,880	7,063	\$1,948,643	27,970
	Pork	\$2,326,782	34,706	\$5,996,366	87,630
	Beef	\$2,850,093	47,229	\$5,964,097	99,425
Quebec Foods	Frozen Fruit Products	\$1,382,423	20,350	\$3,477,189	50,644
	Beef	\$2,175,293	33,293	\$4,313,989	63,496
	Pork	\$3,164,429	45,320	\$5,100,858	72,573
Prestwick Inc	Frozen Fruit Products	\$3,788,338	57,289	\$6,682,377	99,885
	Beef	\$4,838,456	77,105	\$8,648,467	142,084
Penn Brands	Frozen Fruit Products	\$3,839,591	58,530	\$7,207,944	109,341
	Beef	\$4,919,569	76,379	\$9,252,252	142,432
Packingham Corp	Frozen Fruit Products	\$1,740,793	24,683	\$3,579,342	51,005

### Recursive Bottom Percent Results

Here's what the view looks like when you change the filter to a Recursive Bottom 10 Percent. The bottom 10% of Product Categories from each of the bottom 10% of Customer Parents is displayed. The Recursive Bottom Percent filter was applied to each level, Customer Parent and Product Category.

View Name: <i>Top N Percent Multiple Levels of Analysis</i>						
View Filter						
	▼ Base	Recursive Bottom Percent 10		Last Year		Gr
▼ Customer Parent	Product Category	▼ Actual Sales Amount	Actual Sales Units	Actual Sales Amount	Actual Sales Units	Act A
St Louis Dist Inc	Pork	\$2,410,875	35,698	\$4,947,371	72,095	
	Frozen Fruit Products	\$2,635,239	38,886	\$5,085,008	74,818	
Smith Inc	Frozen Fruit Products	\$467,880	7,063	\$1,948,643	27,970	
	Pork	\$2,326,782	34,706	\$5,996,366	87,630	
Packingham Corp	Beef	\$2,850,093	47,229	\$5,964,097	99,425	
	Frozen Fruit Products	\$1,740,793	24,683	\$3,579,342	51,005	
Pacific Corp	Beef	\$1,754,651	26,344	\$3,726,302	55,011	
	Frozen Fruit Products	\$880,915	13,573	\$421,994	6,328	
NY Foods	Pork	\$955,101	13,878	\$1,717,374	24,935	
	Beef	\$2,283,039	30,983	\$4,765,971	69,182	
Montelissi	Pork	\$2,395,073	35,297	\$4,876,617	70,948	
	Frozen Fruit Products	\$2,509,613	36,462	\$4,656,899	67,895	
Maple Tree	Pork	\$902,365	14,222	\$1,875,821	29,250	
	Frozen Prepared Dinners	\$1,416,669	21,400	\$3,238,271	47,230	
Dallas Food Service	Frozen Prepared Dinners	\$2,956,182	33,541	\$6,615,240	71,874	
	Frozen Fruit Products	\$1,889,081	27,738	\$4,083,118	59,173	
Auburn Providers	Canned Fruit	\$2,115,213	31,537	\$4,052,995	60,376	
	Frozen Fruit Products	\$1,372,583	21,018	\$3,228,222	48,795	
Alberta Foods	Beef	\$1,852,935	33,350	\$4,293,614	74,783	
	Frozen Fruit Products	\$1,450,925	21,018	\$3,921,626	56,009	
Grand Total	Pork	\$2,189,380	32,014	\$4,048,184	59,498	
	Frozen Fruit Products	\$1,639,217	24,569	\$3,221,392	47,610	
	Pork	\$2,832,686	42,418	\$5,816,543	85,749	
<b>Grand Total</b>		<b>\$43,827,289</b>	<b>647,628</b>	<b>\$92,081,012</b>	<b>1,347,590</b>	

## Overall Bottom Percent Results

Here's what the view looks like when you change the filter to an Overall Bottom 10 Percent. Only the bottom 10% of Customer Parent/Product Category combinations in terms of overall sales amount is displayed.

Based On		Overall Bottom Percent 10		Last Year		Gr
Customer Parent	Product Category	Actual Sales Amount	Actual Sales Units	Actual Sales Amount	Actual Sales Units	Act
St Louis Dist Inc	Pork	\$2,410,875	35,698	\$4,947,371	72,095	
	Frozen Fruit Products	\$2,635,239	38,886	\$5,085,008	74,818	
	Beef	\$3,456,106	54,712	\$6,186,792	95,583	
	Frozen Prepared Dinners	\$4,578,534	48,450	\$14,154,004	140,811	
	Fresh Fruit	\$5,223,177	112,287	\$10,541,104	219,420	
	Fresh Vegetables	\$6,291,713	135,100	\$13,264,067	281,084	
Southwest Inc	Frozen Fruit Products	\$953,501	13,993	\$2,281,223	32,925	
	Pork	\$1,473,736	21,228	\$2,787,021	39,550	
	Beef	\$1,742,478	28,444	\$4,396,268	69,043	
	Frozen Prepared Dinners	\$2,944,235	31,441	\$6,645,070	68,310	
	Fresh Fruit	\$5,441,738	105,949	\$11,843,420	228,891	
Smith Inc	Frozen Fruit Products	\$467,880	7,063	\$1,948,643	27,970	
	Pork	\$2,326,782	34,706	\$5,996,366	87,630	
	Beef	\$2,850,093	47,229	\$5,964,097	99,425	
	Frozen Prepared Dinners	\$4,968,586	53,910	\$8,371,959	89,300	
	Canned Fruit	\$5,646,516	87,146	\$10,784,036	166,881	
	Fresh Fruit	\$6,319,050	130,022	\$13,142,999	262,344	
Quebec Foods	Frozen Fruit Products	\$1,382,423	20,350	\$3,477,189	50,644	
	Beef	\$2,175,293	33,293	\$4,313,989	63,496	
	Pork	\$3,164,429	45,320	\$5,100,858	72,573	
	Fresh Fruit	\$4,385,462	81,533	\$9,112,729	171,547	
	Fresh Vegetables	\$5,795,266	117,843	\$12,188,465	235,240	
Prestwick Inc	Frozen Fruit Products	\$3,788,338	57,289	\$6,682,377	99,885	
	Beef	\$4,838,456	77,105	\$8,648,467	142,084	

## Edit the Information Displayed in the Select and Advanced Select Members Windows

- In either window, click Options.
- Make the desired changes in the [Display Options window](#):
  - Select or de-select display columns to change which ones display.
  - Select a value from the Return Members list to change how many members display per page in the search results section of the [Advanced Select Members window](#).
- Click OK.



## Factors Influencing Default Settings in Filtering Windows

The default state of the following windows depends on how you accessed the window, either from a view or from an administrative page such as Role Maintenance or User List Maintenance.

- [Select User List Filter window](#)
- [Select Members](#), [Advanced Select Members](#), and [Paste Members windows](#)

### Windows Accessed from Views or View Prompt Window

When filtering windows are opened from a view, the display columns that display by default are the values and/or attribute relationships showing in the grid. The Search By drop-down lists in the Select and Advanced Select Members windows depend on administrator settings in the Select Members Options window. If an attribute relationship was selected in those settings for the applicable level, then Search By will default to that attribute relationship. If System Defined was selected in those administrative settings for the level, then searches will default to the level's display text in the view.

The Buyer level in this view has three attribute relationships available for use in the view, and two of them are showing in the view. The Buyer Short Description is the display text, and the Buyer Phone Number also is on display. Those two attribute relationships are the default display columns in the filtering windows. The Buyer Short Description displays first and is the default selection for Search By. This is the default because the administrative Select Members Options settings for that level were set to System Defined and because that attribute relationship is the display text in the view.

**View Name: Buyer and Ship-To Sales Etc. Figures**

**View Filter**

Buyer >>	Jane Burns		
Buyer Phone Number	384-102-4720		
Ship-To Territory >>	1100		
STerr Long Description	Southwest		
Customer SIC Code >>	Whlsaler; Groc. Gen. Line	Whlsaler; Groc/Rel., NEC	All Others
SIC Long Description	Wholesaler; Groceries General	Wholesaler; Grocery/Related NE	Wholesaler; Gro
Actual Sales Sales Amount Per1 2012 to Per45 2014	\$49,493,425	\$51,380,843	\$100,874,268
Actual Sales Sales Return Units Per1 2012 to Per45 2014	(13,880)	(15,986)	(29,866)
Actual Sales Sales Units Per1 2012 to Per45 2014	795,569	825,533	1,621,103
Actual Sales Ext Actual Cost Per1 2012 to Per45 2014	\$20,137,634	\$21,909,932	\$42,047,567
Actual Sales Ext Handling Cost	\$771,050	\$838,245	\$1,609,294

**View Explorer**

- Buyer and Ship-To Sales Etc. Figures
  - Parameter Groups
  - Grid
    - Rows
    - Columns
      - Distribution Center Warehouse
      - Vendor Buyer
      - Buyer
        - Buyer
          - Buyer Short Description
          - Buyer Fax Number
          - Buyer Phone Number
        - Ship-To Territory
        - Customer SIC Code
        - Product Type
        - Customer Sold-To
        - UPC Global Number
      - View Filter
      - Measure Items

**Properties - Buyer**

Filter	None	...
Sort	None	▼
Total	Yes	▼
Visible	Yes	▼
Display Text	Buyer Short Description	▼

**SELECT MEMBERS: BUYER** ✕

Search For:  Search By: **Buyer Short Descriptio** ▼ Contains ▼ Find Stop

Buyer Short Description ▲	Buyer Phone Number
?	?
Jane Burns	384-102-4720
Jerry Caplain	384-102-3928
Kim Pritchett	384-102-4503
Michael Sorritelli	384-102-0147

Select Advanced Options OK Cancel Help

When running views with parameters, a Display Text property for parameters can be used to customize what users see when they access filtering windows from the View Prompt window. When the property is set to View, the filtering window behaves the same as described in the prior section. When the property is set to an attribute of the level, the defaults in the filtering windows will use that attribute when windows are accessed from the View Prompt window.

**Note:** Display Text settings for a parameter only take effect if the Search By setting for a level in the Select Members Options administrator window are set to System Defined. If an attribute relationship is selected for a level's Search By setting in Select Members Options, then Search By will default to that administrator-specified attribute relationship.

The following View includes a Select Members parameter on the UPC Global Number level. The parameter Display Text is set to UPC Long Description. Information displayed in the grid for the level are UPC Commodity Code, ABC Classification, and Short Description. The Search By setting in Select Members Options for the level is set to System Defined. When users access the Select and Advanced Select Members from the View Prompt window to make their UPC selections, the Search By and first display column will default to the UPC Long Description, according to the parameter Display Text setting.

**View Name:** UPC Daily Sales by Ship-To Region

**View Filter**

Ship-To Region >>			E. US		S. US		MidW US
SRgn Country			USA		USA		USA
UPC Global Number	UPC ABC Classification	UPC Short Description	Daily Sales Amount Jan 14 to Sep 14	Daily Sales Units Jan 14 to Sep 14	Daily Sales Amount Jan 14 to Sep 14	Daily Sales Units Jan 14 to Sep 14	Daily Sales Amount Jan 14 to Sep 14
0 - 39484 - 92837 - 1	B	Apples Red Delicious	\$9,574,364	6,905	\$13,700,369	10,271	\$10,848,5
0 - 24000 - 12430 - 4	A	Applesauce 106oz BR*	\$6,421,048	1,546	\$5,651,066	2,346	\$6,560,4
0 - 24000 - 12431 - 4	A	Applesauce 106oz PL*	\$13,563,955	1,797	\$19,136,315	5,825	\$17,732,0
0 - 24000 - 12530 - 4	A	Applesauce 12oz BR*	\$6,062,108	1,478	\$3,188,540	676	\$7,927,1
0 - 24000 - 12531 - 4	A	Applesauce 12oz PL*	\$18,921,470	8,768	\$8,790,517	3,887	\$27,569,8
0 - 02749 - 25408 - 6	C	Asparagus	\$20,400,226	2,871	\$19,747,022	5,475	\$25,778,8
0 - 79453 - 02938 - 9	A	Baby Carrots	\$7,456,195	4,426	\$7,923,022	2,177	\$8,523,2
0 - 39484 - 24300 - 1	B	Bananas	\$2,613,118	1,674	\$3,187,710	1,273	\$3,500,8
0 - 24000 - 12432 - 4	A	Blackberries 106oz BR*	\$2,753,608	311	\$2,990,502	395	
0 - 24000 - 12532 - 4	A	Blackberries 12oz BR*	\$3,267,656	975	\$1,266,028	373	\$4,144,4
0 - 24000 - 12477 - 4	B	Blueberries 106oz BR*	\$1,304,435	126	\$1,910,835	288	\$1,715,5
0 - 24000 - 12577 - 4	B	Blueberries 12oz BR*	\$2,089,920	293	\$897,349	86	\$2,777,7
0 - 24000 - 12456 - 4	C	Blueberry Filling 106oz B	\$2,330,422	737	\$5,375,531	1,896	
0 - 24000 - 12450 - 4	C	Blueberry Filling 106oz P			\$548,892	198	

**View Explorer**

- UPC Daily Sales by Ship-To Region
  - Parameter Groups
    - ShipTo Region Parameters
      - UPC Parameters
        - MemberParameter
  - Grid
    - Rows
    - Columns
    - View Filter
    - Measure Items
    - Presentation
    - Charts

**Properties - MemberParameter**

Name	MemberParameter
Type	Select Members
Prompt	Choose UPC's to Review
Default Value	
Display Text	UPC Long Description

**SELECT MEMBERS: UPC GLOBAL NUMBER** X

Search For:  Search By: **UPC Long Description** Contains Find Stop

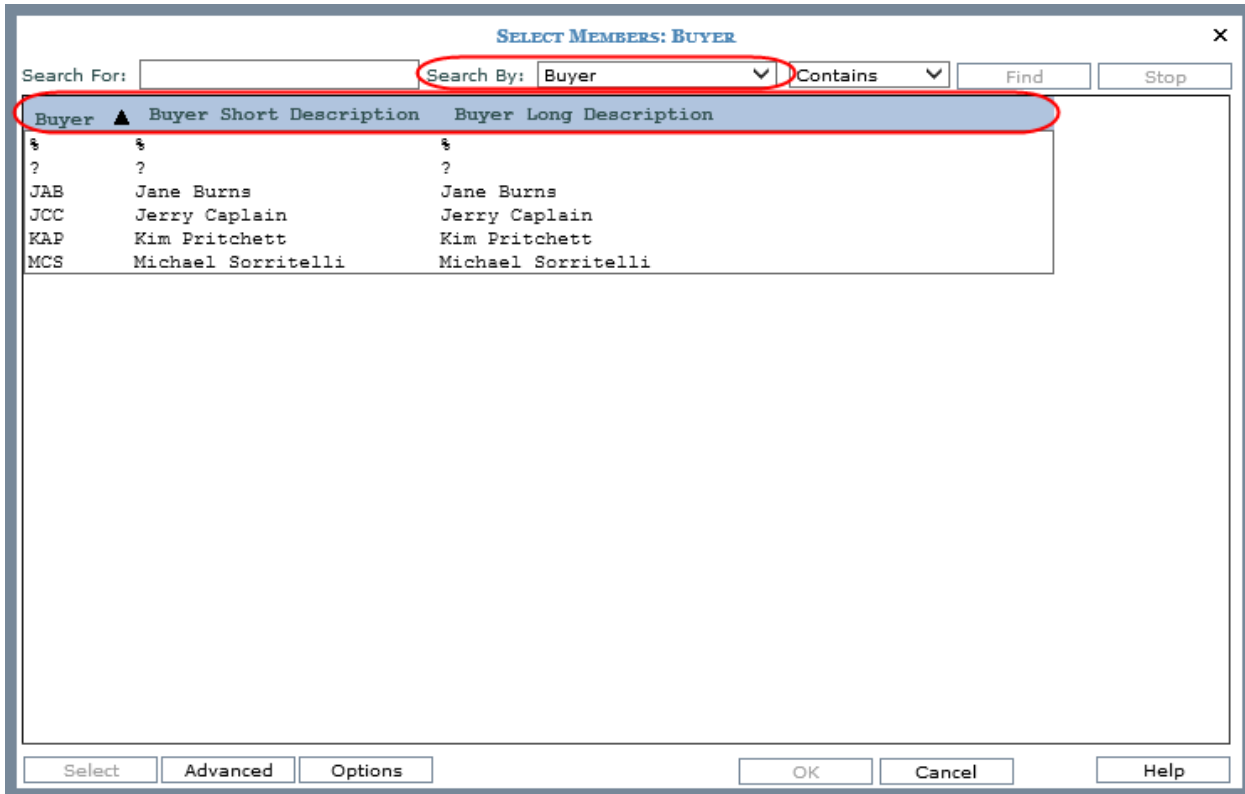
UPC Long Description ▲	UPC ABC Classification	UPC Short Descrip
?	?	?
Apple Filling 106oz BR*	B	Apple Filling 106c
Apple Filling 106oz PL*	A	Apple Filling 106c
Apple Filling 12oz BR*	B	Apple Filling 12oz
Apple Filling 12oz PL*	A	Apple Filling 12oz
Apples Red Delicious	B	Apples Red Delicic
Applesauce 106oz BR*	A	Applesauce 106oz E
Applesauce 106oz PL*	A	Applesauce 106oz I
Applesauce 12oz BR*	A	Applesauce 12oz BF
Applesauce 12oz PL*	A	Applesauce 12oz PI
Asparagus	C	Asparagus
Baby Carrots	A	Baby Carrots
Bananas	B	Bananas
Blackberries 106oz BR*	A	Blackberries 106oz
Blackberries 12oz BR*	A	Blackberries 12oz
Blueberries 106oz BR*	B	Blueberries 106oz
Blueberries 12oz BR*	B	Blueberries 12oz E
Blueberry Filling 106oz BR*	C	Blueberry Filling
Blueberry Filling 106oz PL*	C	Blueberry Filling
Blueberry Filling 12oz BR*	C	Blueberry Filling
Blueberry Filling 12oz PL*	C	Blueberry Filling
Cherries, Bing	B	Cherries, Bing
Cherry Filling 106 oz BR*	A	Cherry Filling 106
Cherry Filling 106oz PL*	A	Cherry Filling 106

Select Advanced Options OK Cancel Help

## Windows Accessed from Administrative Pages

The default display columns and Search By are determined by administrator settings when filtering windows are accessed from administrative pages. Administrators use a Select Members Options window to choose the defaults for each level.

Here is the Select Members window for the Buyer level shown in the first example. The window was accessed from the User List Maintenance window while setting up a user list. Based on administrator settings, the default Search By is value (Buyer) and the default display columns are value, Buyer Short Description, and Buyer Long Description.



# Guidelines for Sorting and Filtering on Totals

Here is some helpful information to know when sorting or filtering totals.

- Casual users can edit existing sorts and filters on totals.
- Advanced users and administrators can add new sorts and filters on totals and edit existing sorts and filters.
- This feature is available on the Grand Totals that are on the same axis as the measure items. For example, the measures items in this view are in columns. The Grand Totals in columns can have sorts and filters applied to them.

Return Reason Code >>	624		625		Grand Total	
RtnCd Long Description	Damaged Product		Price			
Lot	2014 YTD Months Return Amount	2013 YTD Months Return Amount	2014 YTD Months Return Amount	2013 YTD Months Return Amount	2014 YTD Months Return Amount	2013 YTD Months Return Amount
<a href="#">19990101914001</a>	(\$359)	(\$380)	(\$218)	(\$2)	(\$2,745)	(\$2,652)
<a href="#">19990101914002</a>	(\$347)	(\$367)	(\$211)	(\$2)	(\$3,631)	(\$16,309)
<a href="#">19990101914003</a>	(\$475)	(\$503)	(\$289)	(\$3)	(\$11,090)	
<a href="#">19990101914008</a>	(\$2,132)	(\$2,260)	(\$1,298)	\$1,3		
<a href="#">19990101914304</a>	(\$1,450)	(\$1,537)	(\$882)	(\$9)		
<a href="#">19990101914422</a>	(\$1,722)	(\$1,825)	(\$731)	(\$7)		
<a href="#">19990101914602</a>	(\$773)	(\$819)	(\$806)	(\$8)		
<a href="#">19990101914603</a>	(\$520)	(\$552)	(\$428)	(\$4)		
<a href="#">19990101914604</a>	(\$179)	(\$190)	(\$76)	(\$)	(\$956)	
<a href="#">19990101924003</a>	(\$3,984)	(\$4,223)	(\$1,992)	\$2,1	(\$25,039)	
<a href="#">19990101924015</a>	(\$789)	(\$837)	(\$480)	(\$509)	(\$2,027)	(\$2,027)
<a href="#">19990101924401</a>	(\$4,644)	(\$4,923)	(\$3,512)	(\$3,722)	(\$33,521)	(\$35,532)
<a href="#">19990101924402</a>	(\$525)	(\$557)	(\$320)	(\$339)	(\$3,701)	(\$4,010)

## Named Sets

Year to Date (YTD) named sets are created by Stratum.Connector for Viewer during the processing of the Analysis Services database for your Stratum.Viewer environment. There will be YTD named sets created for each single level, absolute time dimension. The named sets will consist of the time members for a year up to the current period -- for example, days in the year up to the current day, weeks up to the current week, months up to the current month, and quarters up to the current quarter.

This table shows examples of types of Stratum.Viewer dimensions that would and wouldn't have named sets.

Dimension	Hierarchy	Level(s)	Has a Named Set?
Weeks	Weeks	Weeks	Yes. This is an absolute time dimension with a single level.
Year Weeks	Year Weeks	<ul style="list-style-type: none"> <li>Year</li> <li>Weeks</li> </ul>	No. This is an absolute time dimension, but it has multiple levels.
Year Based Weeks Based	Year Based Weeks Based	<ul style="list-style-type: none"> <li>Year Based</li> <li>Weeks Based</li> </ul>	No. This is a based time dimension.
Product Brand	Product Brand	Product Brand	No. This is not a time dimension.

Named sets can be used in Stratum.Viewer for period based analysis and filtering levels from single level, absolute time dimensions. The named sets also can be used for setting up calculated measure items. More details:

- [Named Sets Created for Single Level, Absolute Time Dimensions](#)
- [Accessing Named Sets and Using them in Views](#)

### Named Sets Created for Single Level Time Dimensions

Here are examples of named sets and their members that are created by Stratum.Connector for Viewer for single level, absolute time dimensions. Factors that determine the named sets are measure groups and their related Stratum.Server Structure Codes, the Based Periodic ViewSets in ViewGroups associated with the Structure Codes (excluding Based Year ViewSets), Categories in the Structure Codes, and Current Period information in the Stratum.Server database. For each Category in a Structure Code, a Named Set for each type of Based Periodic ViewSet is created.

Structure Code	ViewGroup Associated with Structure Code	Based Periodic ViewSets in the ViewGroup
Sales	Sales	Year Based
		Quarters Based
		Months Based
		Weeks Based
Inventory	Inventory	Year Based
		Quarters Based

		Months Based
		Weeks Based
Forecast	Forecast	Year Based
		Quarters Based
		Months Based

Additionally, the Structure Codes contain these Categories.

Structure Code	Category
Sales	Sales
Inventory	Inventory
Forecast	Forecast

Given this set up, Stratum.Connector for Viewer will create the following named sets. Their names consist of the Category name, a space, the text "YTD" (for year to date), another space, and the name of the Absolute Periodic ViewSet on which the Based Periodic ViewSet in the ViewGroup was based.

Structure Code	Named Set
Sales	Sales YTD Quarters
	Sales YTD Months
	Sales YTD Weeks
Inventory	Inventory YTD Quarters
	Inventory YTD Months
	Inventory YTD Weeks
Forecast	Forecast YTD Quarters
	Forecast YTD Months



**More Information:**

Named sets are comprised of members that make up the YTD Periods for the related Absolute Periodic ViewSet. Current Period information determines the member list for each named set. For example, if the current month in the Stratum.Server storage database is defined as April, the YTD Periods for the Months ViewSet would be January, February, March, and April. Given this, named sets such as Sales YTD Months and Forecast YTD Months would be comprised of the members January, February, March, and April.

Given the example named sets shown previously, if the Current Period was September 2014, then:

- The list of members for Sales YTD Quarters and other YTD Quarters named sets would be Q1, Q2, and Q3.
- The list of Members for Sales YTD Months and other YTD Months named sets would be January, February, March, April, May, June, July, August, and September.
- The list of Members for Sales YTD Weeks and other YTD Weeks named sets would be Week 1 through Week 38.

**Accessing Named Sets and Using Them in Views**

Named sets are accessed from the Select Named Set Filter window, which in turn is accessed from the Select Filter Method window when you are working with filters or working with expressions. Examples of using named sets follow. Remember, to use named sets you must be working with a single level, absolute time dimension such as Weeks, Months, Quarters, or Periods. When you are choosing a named set for a filter or expression, be sure that the set is relevant to the measure items in the view or expression. For example, if the measure item in a view is Actual Sales and you are filtering a level by a named set, choose one that pertains to Actual Sales rather than one pertaining to Budget.

**Named Set Used for a Filter**

The following view includes the Months level, which is from the Months time hierarchy and time dimension. Because the Months dimension is a single level, absolute time dimension, you can use the named sets for the Months level when working with the view. The Budget YTD Months named set was used to filter the level because Budget measure items are in the view. More information follows this image.

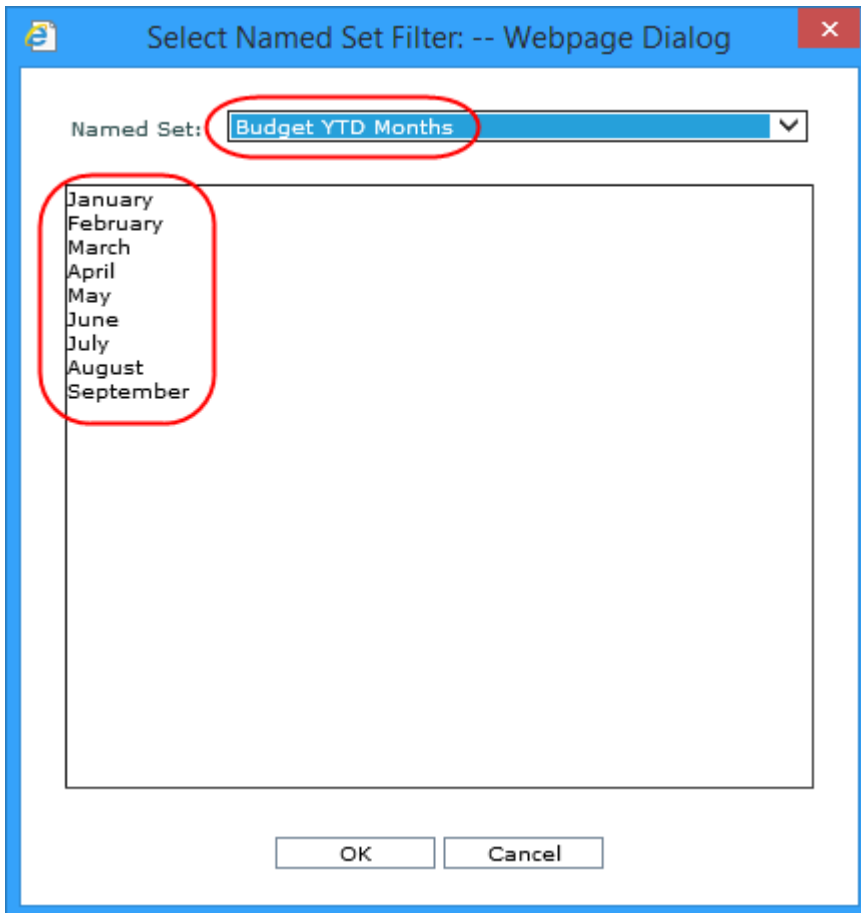
View Name: <i>Period Based Budget View</i>						
View Filter						
Year >>	2015			2014		
Months	Budget Budget Amount Working	Budget Budget Amount Frozen	Budget Budget Units Working	Budget Budget Units Frozen	Budget Budget Amount Working	Budget Budget Amount Frozen
January			2,293	8,341,792	\$373,945,683	\$4,222,380,810
February			5,765	5,920,590	\$262,448,013	\$2,111,111,111
March	\$464,814,077	\$490,889,486	8,010,147	8,406,831	\$371,851,261	\$4,222,380,810
April	\$492,567,438	\$520,199,772	8,801,982	8,970,905	\$394,053,951	\$4,222,380,810
May	\$512,879,272	\$541,651,071	8,357,900	9,282,902	\$410,303,418	\$4,222,380,810
June	\$509,645,159	\$538,235,529	8,134,081	9,139,116	\$407,716,127	\$4,222,380,810
July	\$605,162,241	\$639,110,984	10,635,023	10,844,762	\$484,129,793	\$5,333,333,333
August	\$717,565,679	\$757,820,095	11,592,988	12,744,824	\$574,052,543	\$6,666,666,667
September	\$524,254,824	\$553,664,775	9,970,425	9,335,601	\$419,403,859	\$4,222,380,810
<b>Grand Total</b>	<b>\$4,622,380,810</b>	<b>\$4,881,689,811</b>	<b>73,470,603</b>	<b>82,987,323</b>	<b>\$3,697,904,648</b>	<b>\$4,222,380,810</b>

To set up the filter, the Months level was right-clicked and Filter then Edit was selected from the pop-up menu that displayed. In the Select Filter Method window, Named Set was selected, and OK was clicked.

**Note:** Another option in this window would have been to select Named Set, enter the name of the named set in the quick filter field, and click OK. In that case, the filter would be applied without accessing the Select Named Set Filter window.



The Select Named Set Filter window displayed, and the Budget YTD Months named set was selected. The window displayed the members in the named set. Then, OK was clicked to apply the filter.



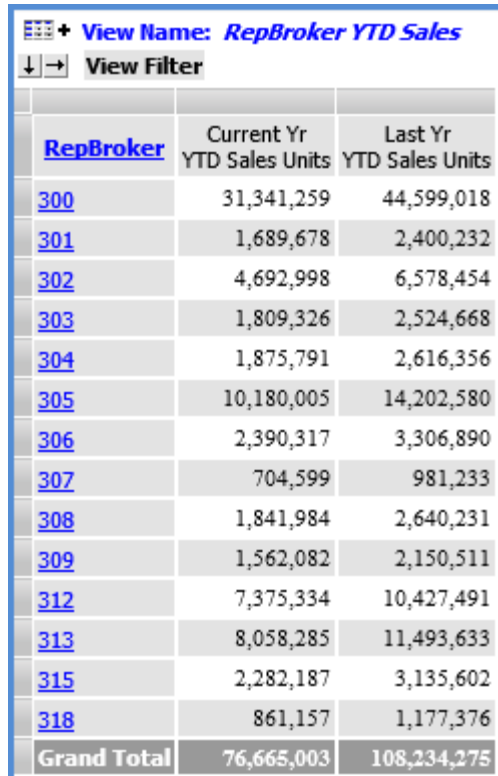
## Named Set Used for a Calculated Measure Item

Here is an example of named sets used for calculated measure items. Both YTD calculated measure items use a named set in their expression. The calculated measure items take into account data from all months up to and including the current month for the last year and current year. More information follows this image.

---

**Note:** You can create a similar view using measure items with time ranges. The view would need to be one in which the Time Range property is enabled.

---



RepBroker	Current Yr YTD Sales Units	Last Yr YTD Sales Units
300	31,341,259	44,599,018
301	1,689,678	2,400,232
302	4,692,998	6,578,454
303	1,809,326	2,524,668
304	1,875,791	2,616,356
305	10,180,005	14,202,580
306	2,390,317	3,306,890
307	704,599	981,233
308	1,841,984	2,640,231
309	1,562,082	2,150,511
312	7,375,334	10,427,491
313	8,058,285	11,493,633
315	2,282,187	3,135,602
318	861,157	1,177,376
<b>Grand Total</b>	<b>76,665,003</b>	<b>108,234,275</b>

The expression for the first measure item is:

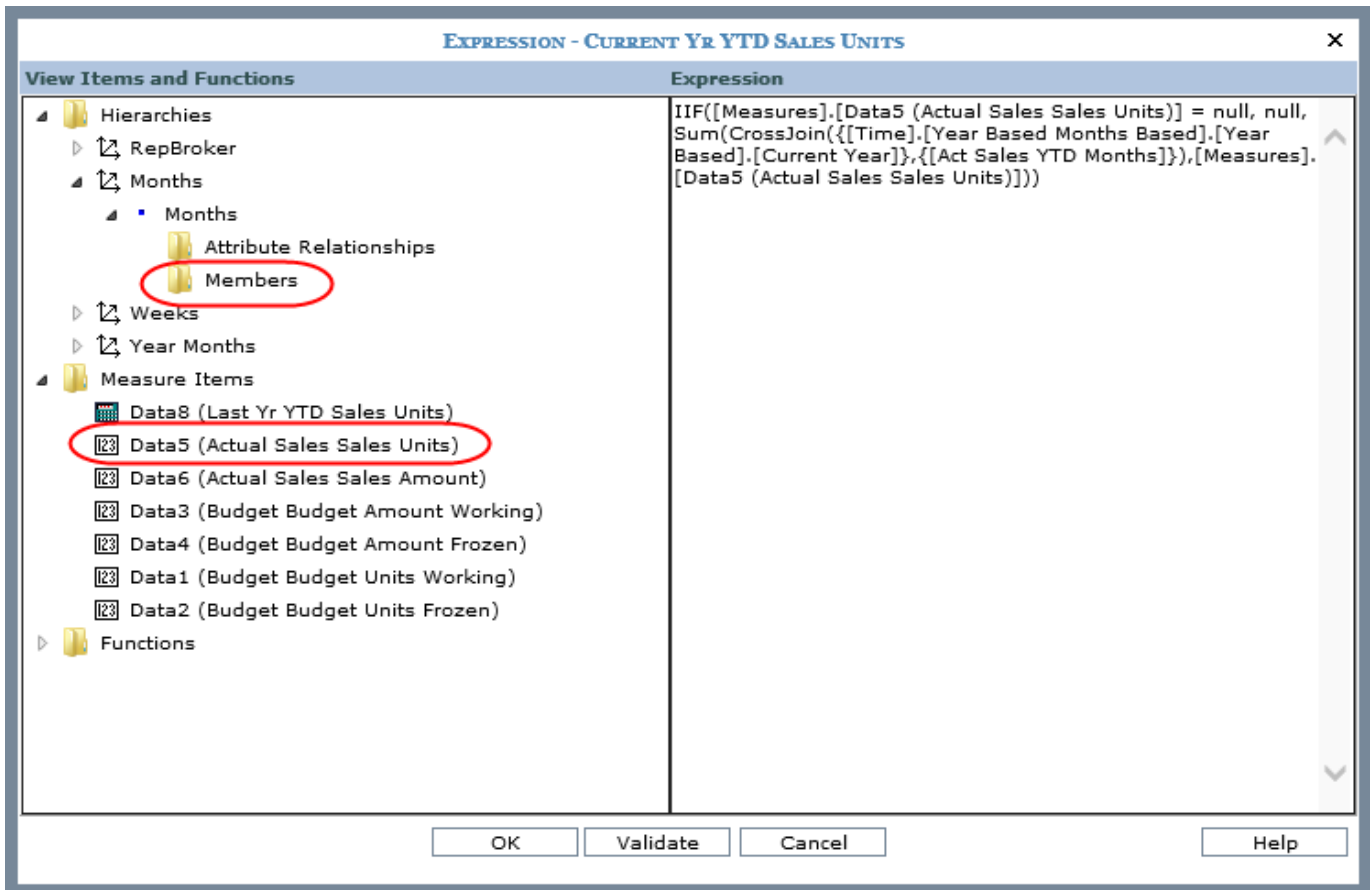
```
IIF([Measures].[Data5 (Actual Sales Sales Units)] = null, null, Sum(CrossJoin({[Time].[Year Based Months Based].[Year Based].[Current Year]}, {[Act Sales YTD Months]}), [Measures].[Data5 (Actual Sales Sales Units)]))
```

This expression uses the Act Sales YTD Months named set and the Actual Sales Sales Units measure item, which is part of the view definition but hidden from display. The expression has been optimized to check whether or not sales units data exists. The expression will be executed only for cases where there is data. Running the expression without this check could be time consuming.

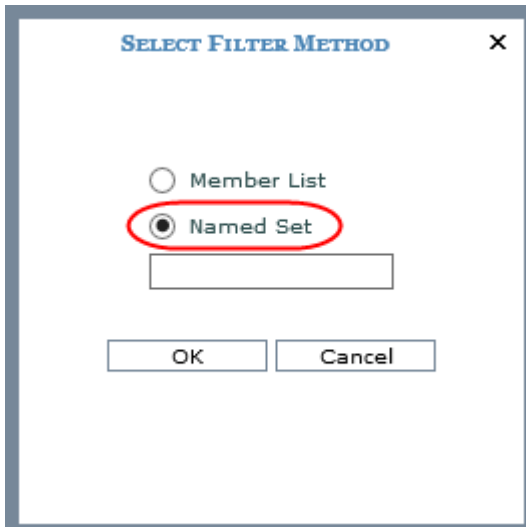
---

**Note:** If the Actual Sales Sales Units measure item had not been a part of the view definition, the MDX for the related measure could have been typed directly into the expression. In that case, the expression would have been `IIF([Measures].[Actual Sales Sales Units] = null, null, Sum(CrossJoin({[Time].[Year Based Months Based].[Year Based].[Current Year]}, {[Act Sales YTD Months]}), [Measures].[Actual Sales Sales Units]))`.

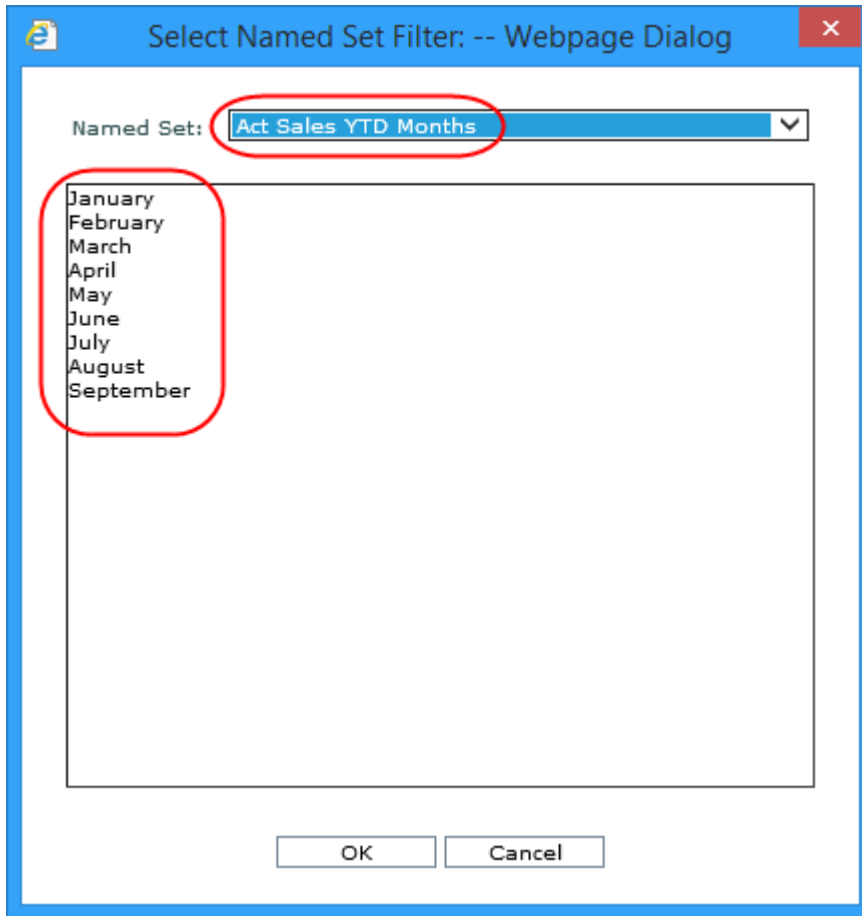
---



When building such expressions, you can enter the name of the relevant named set directly into the Expression window. Or, navigate to the appropriate level in the window and click its Members sub-folder to access the Select Filter Method window. For this measure item's expression, the Members sub-folder of the Months level was clicked to access the Select Filter Method window. Named Set was selected, and OK was clicked.



The Act Sales YTD Months named set was selected since the measure item in the expression is Actual Sales Sales Units.



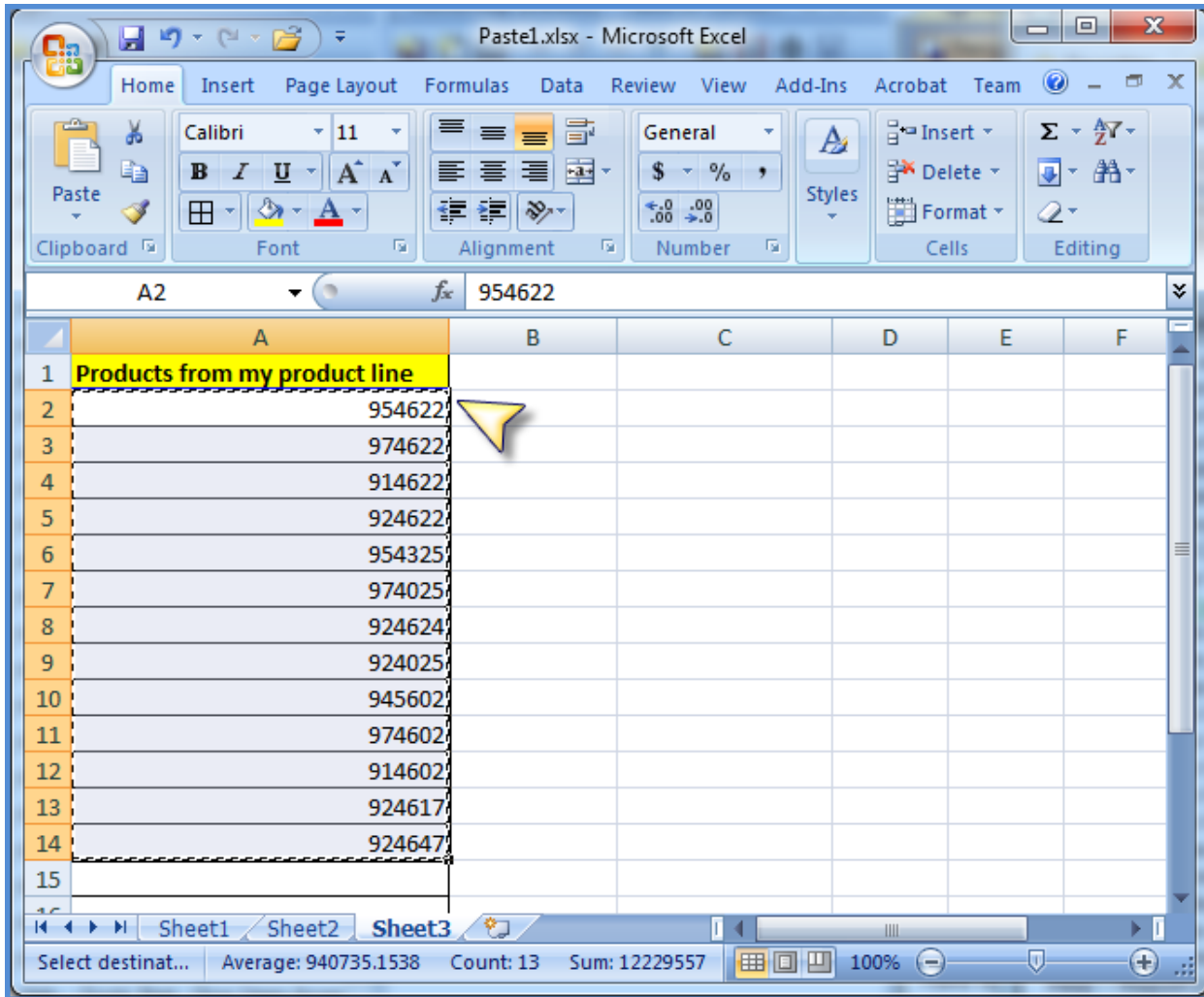
## Potential Sources of Data for use with Pasting Members

Paste Members functionality lets you copy a list of members into Stratum.Viewer, validate the list, and then add valid members to the member list filter or user list definition with which you are working. You can copy members from sources such as:

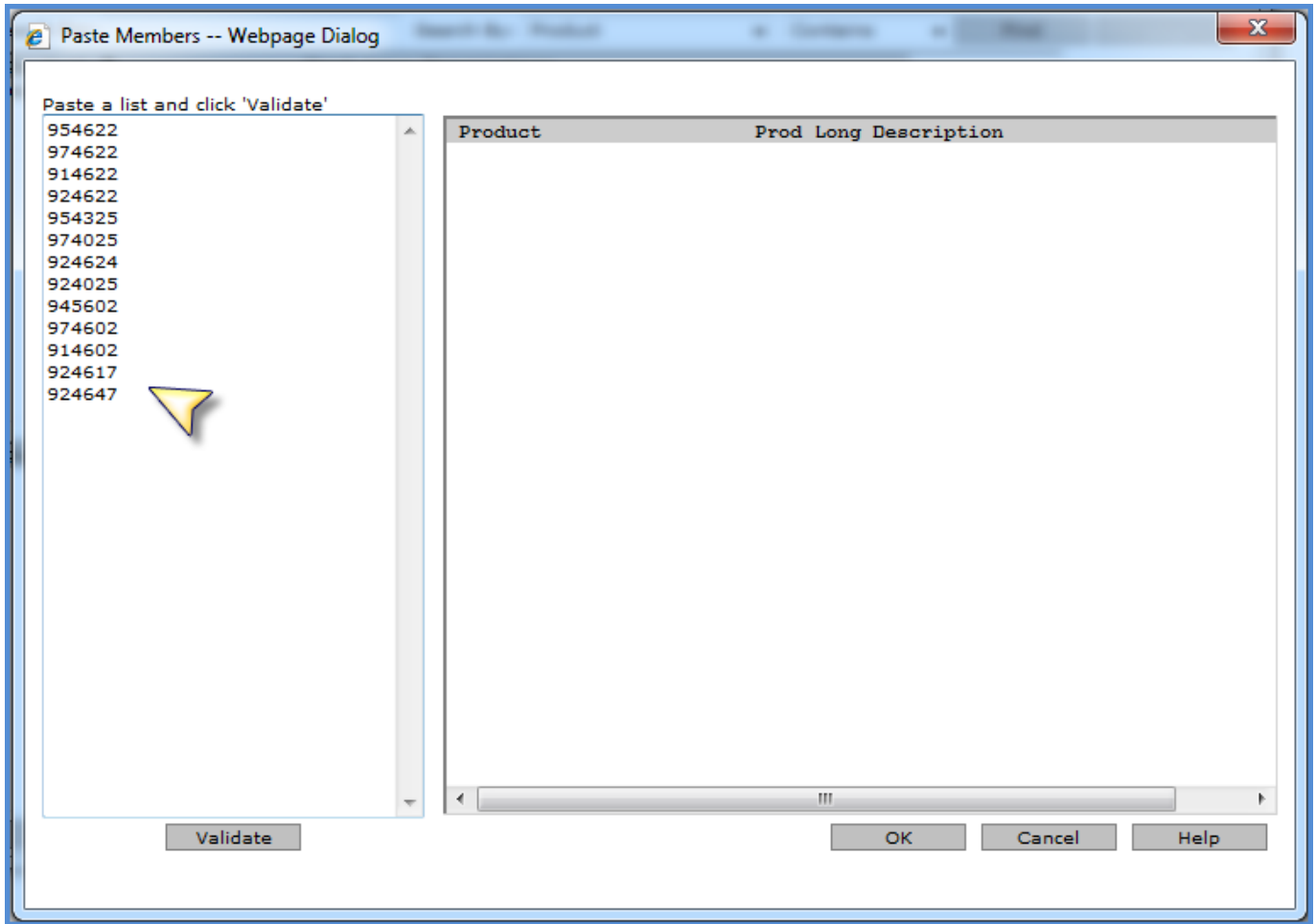
- [A column](#) in a Microsoft Excel spreadsheet.
- [A list of members separated by paragraph returns](#) in a Microsoft Word document.
- [A comma-delimited list of members](#), such as from an e-mail or text file. You can remove the commas before the paste via Excel as shown in the last example that follows.

## Excel Example

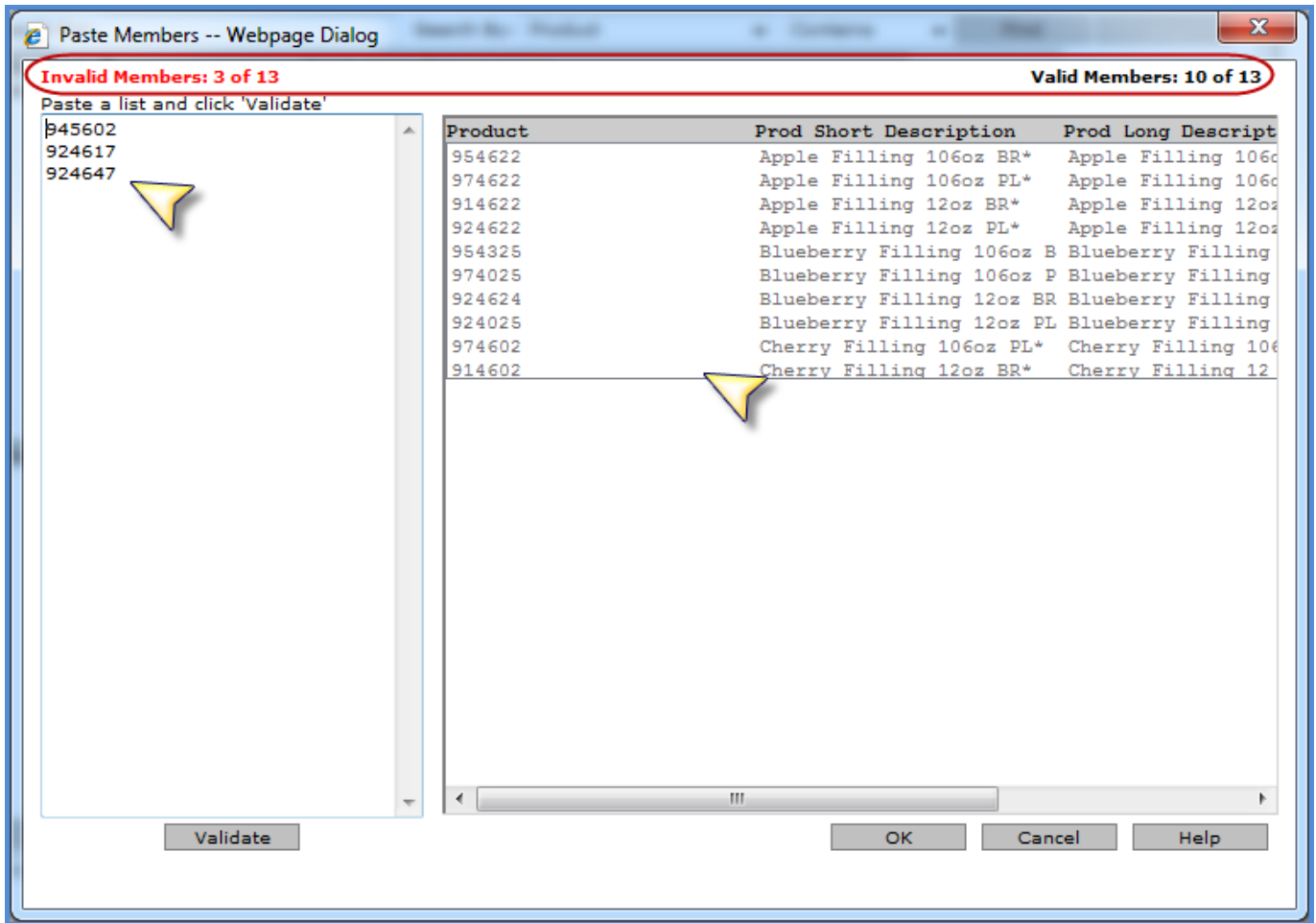
Here is an example of pasting members while working with the Product level. The Advanced Select Members window had been accessed for that level and then Paste was clicked. Next, this list of values for Product members was copied from an Excel spreadsheet column.



The copied text was pasted into the Paste Members window.

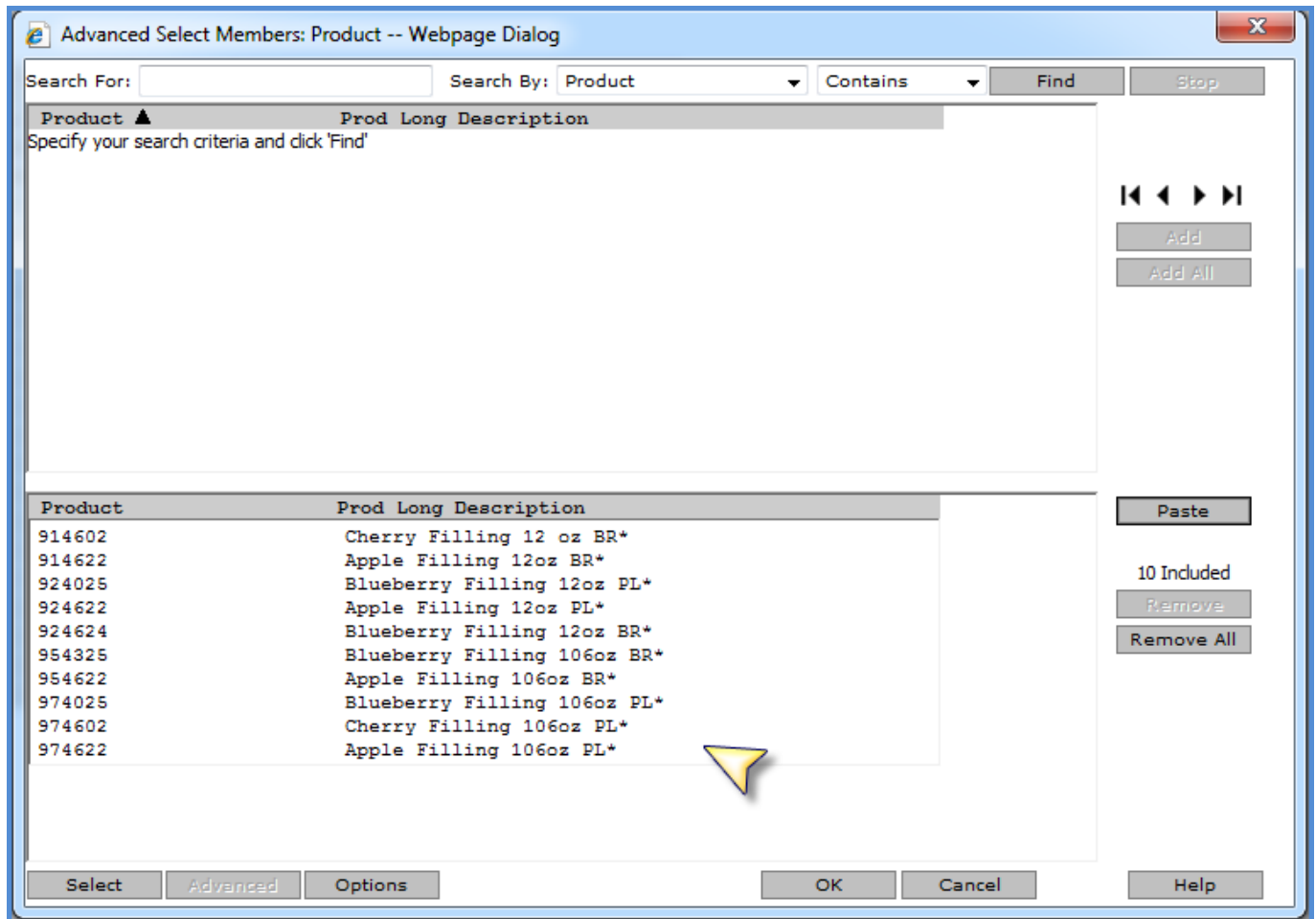


The Validate button was clicked. Valid members were moved to the right side of the window. Invalid members remained in the left side of the window.



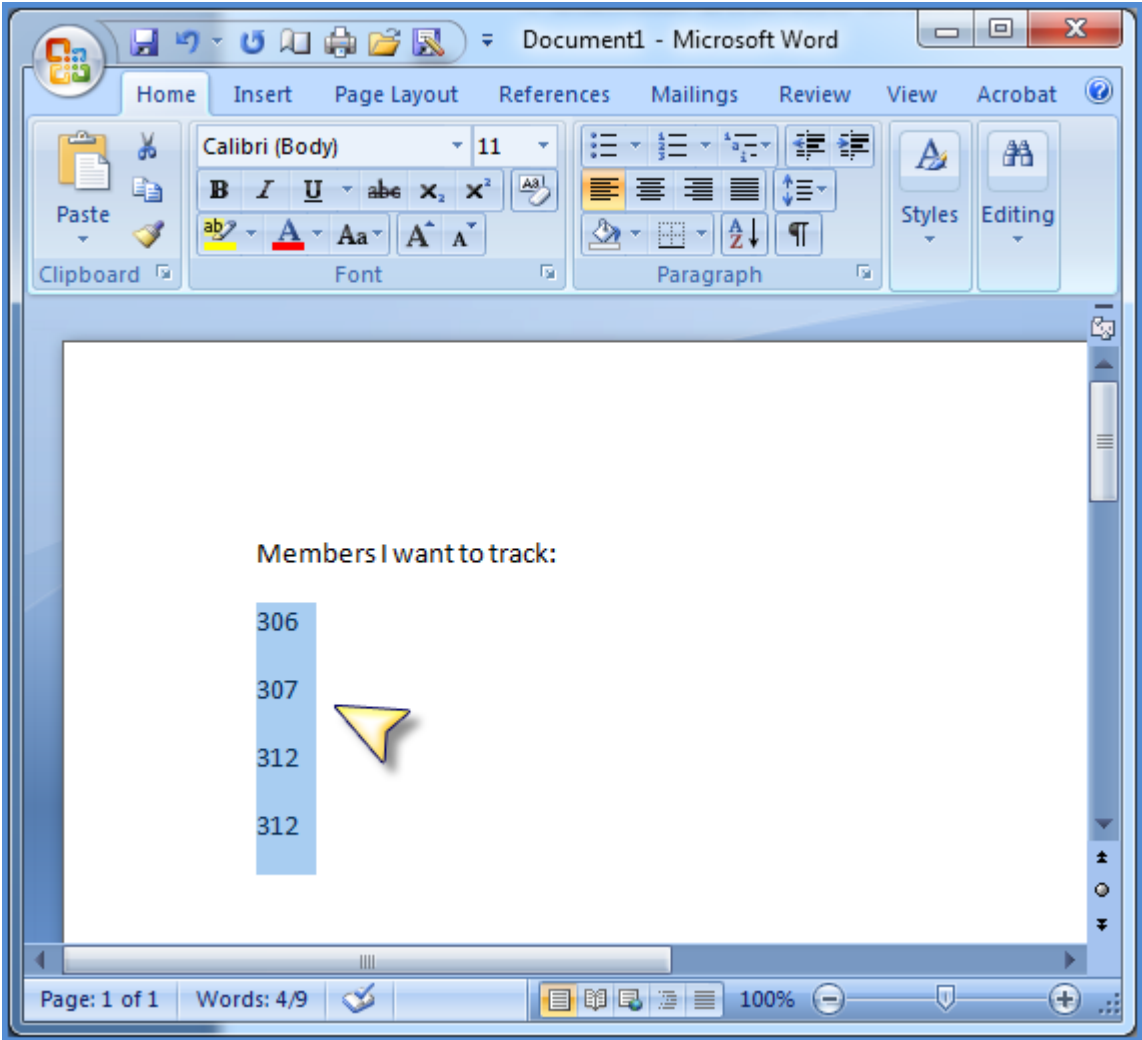


The user could have potentially edited the invalid information to correct it by typing in the left side of the window. Or, the user could have pasted or typed additional new members then performed another validate. Instead, the OK button was clicked to return the valid members to the Advanced Select Members window.

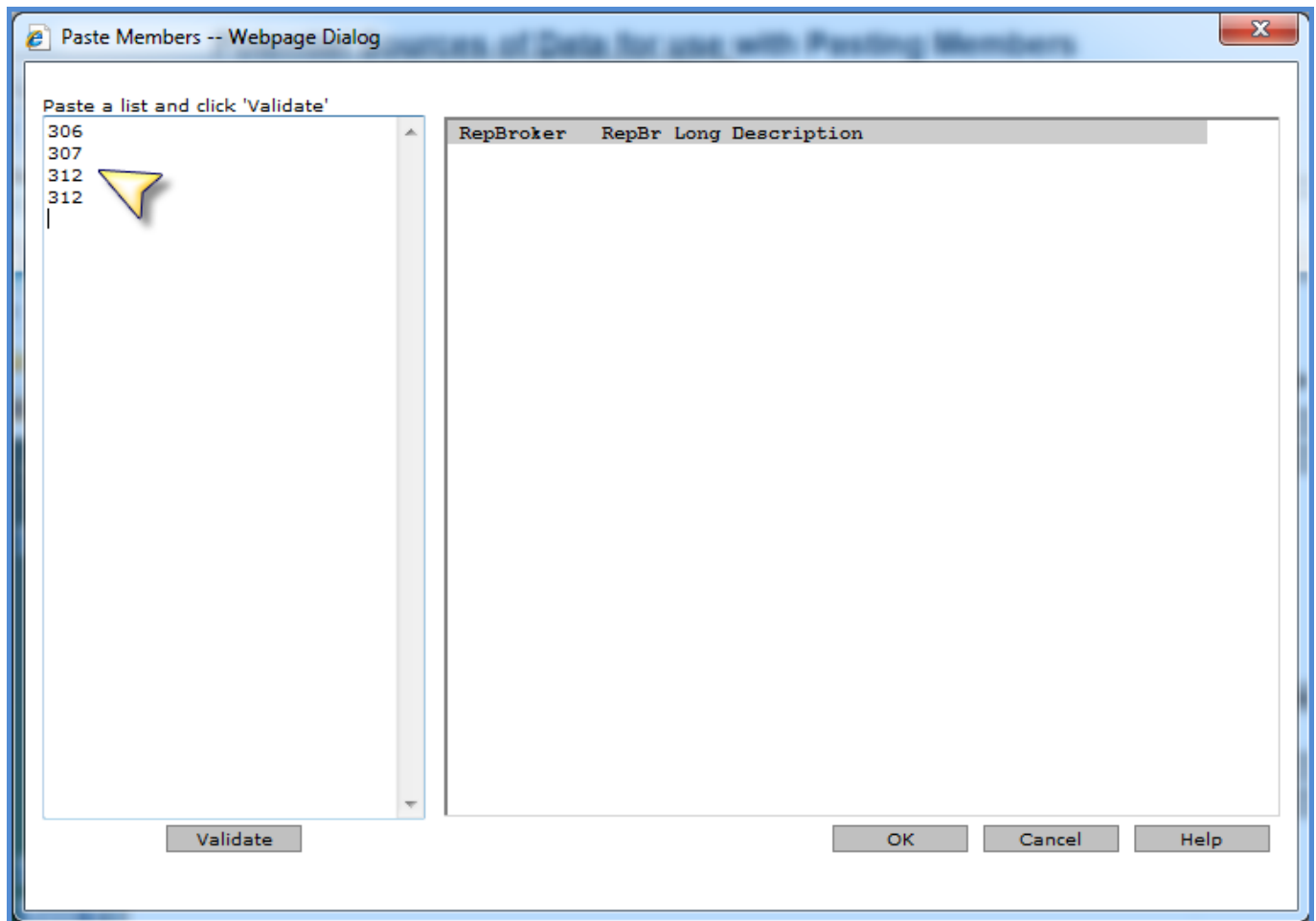


**Word Example**

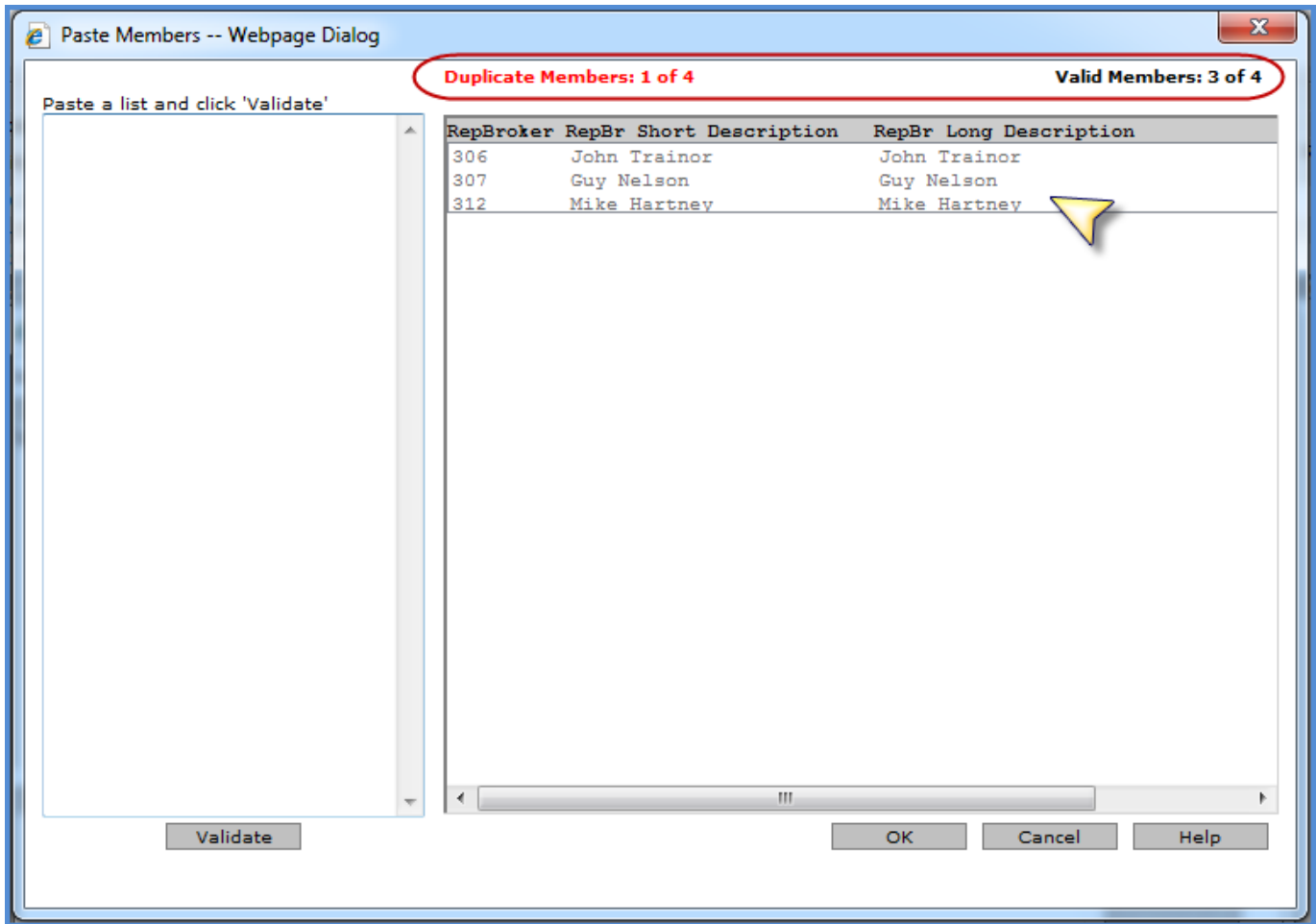
Similar pasting can be done from Word. Here is an example of RepBroker members in a Word document.



The text was copied from Word then pasted into the Paste Members window.

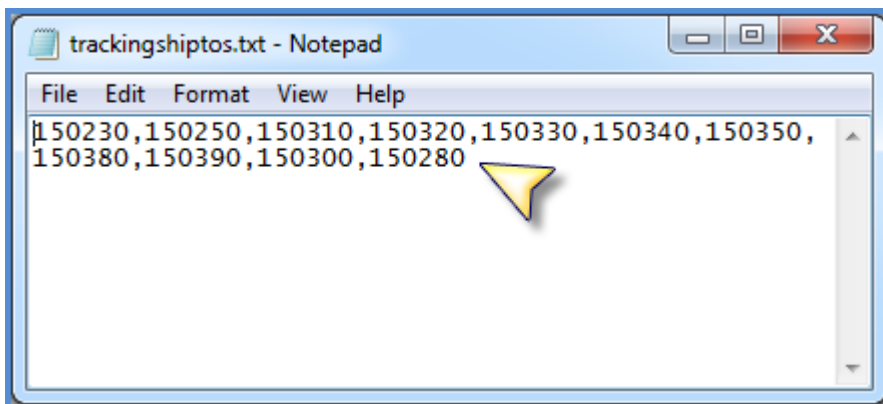


Here is the window after the Validate button was clicked. The member 312 appeared twice in the pasted text, so it was considered a duplicate member and only counted once in the count of valid members.

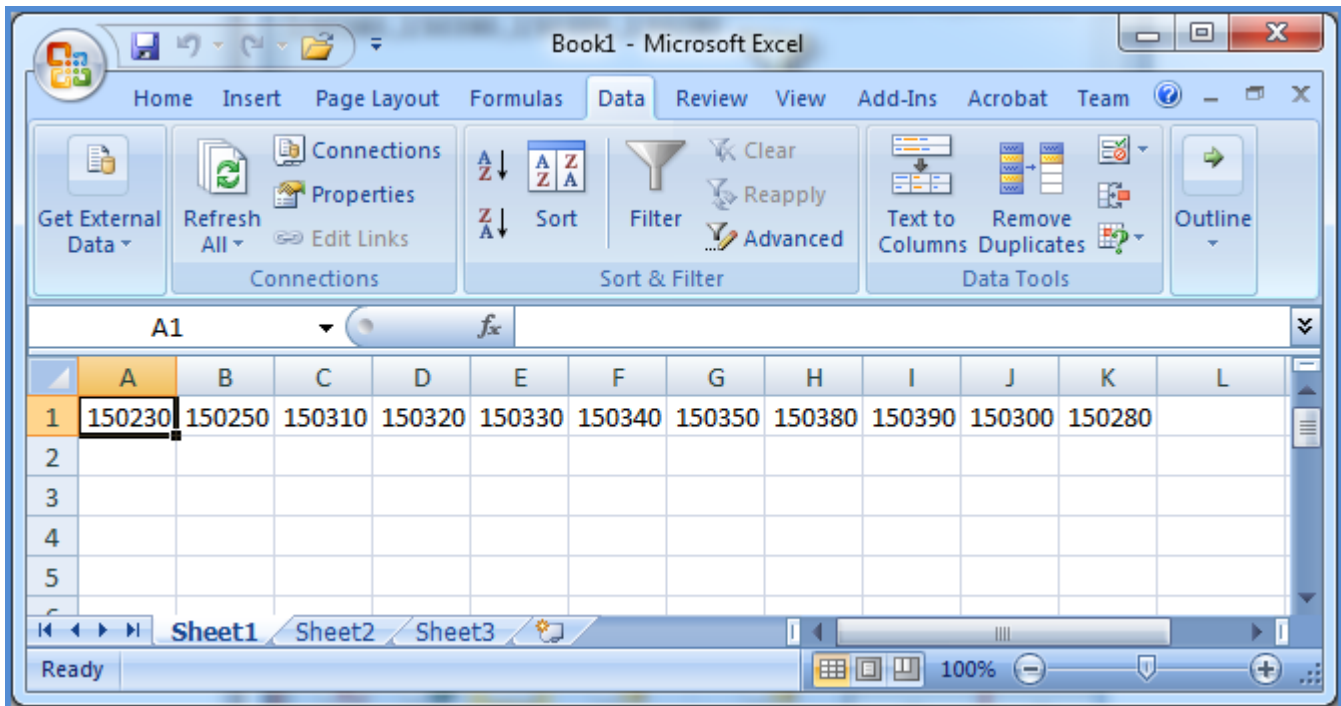
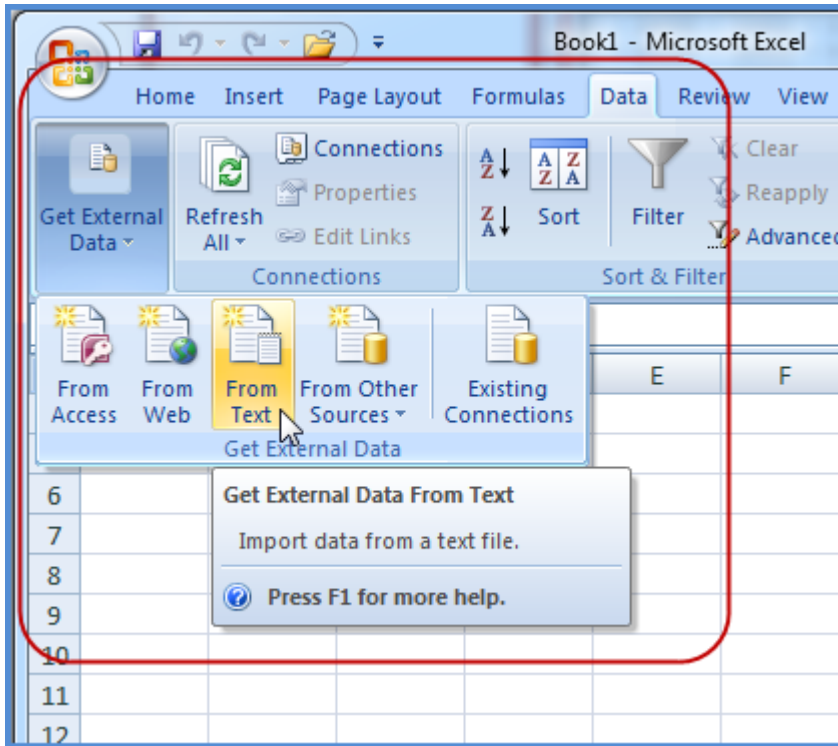


### Text File Example

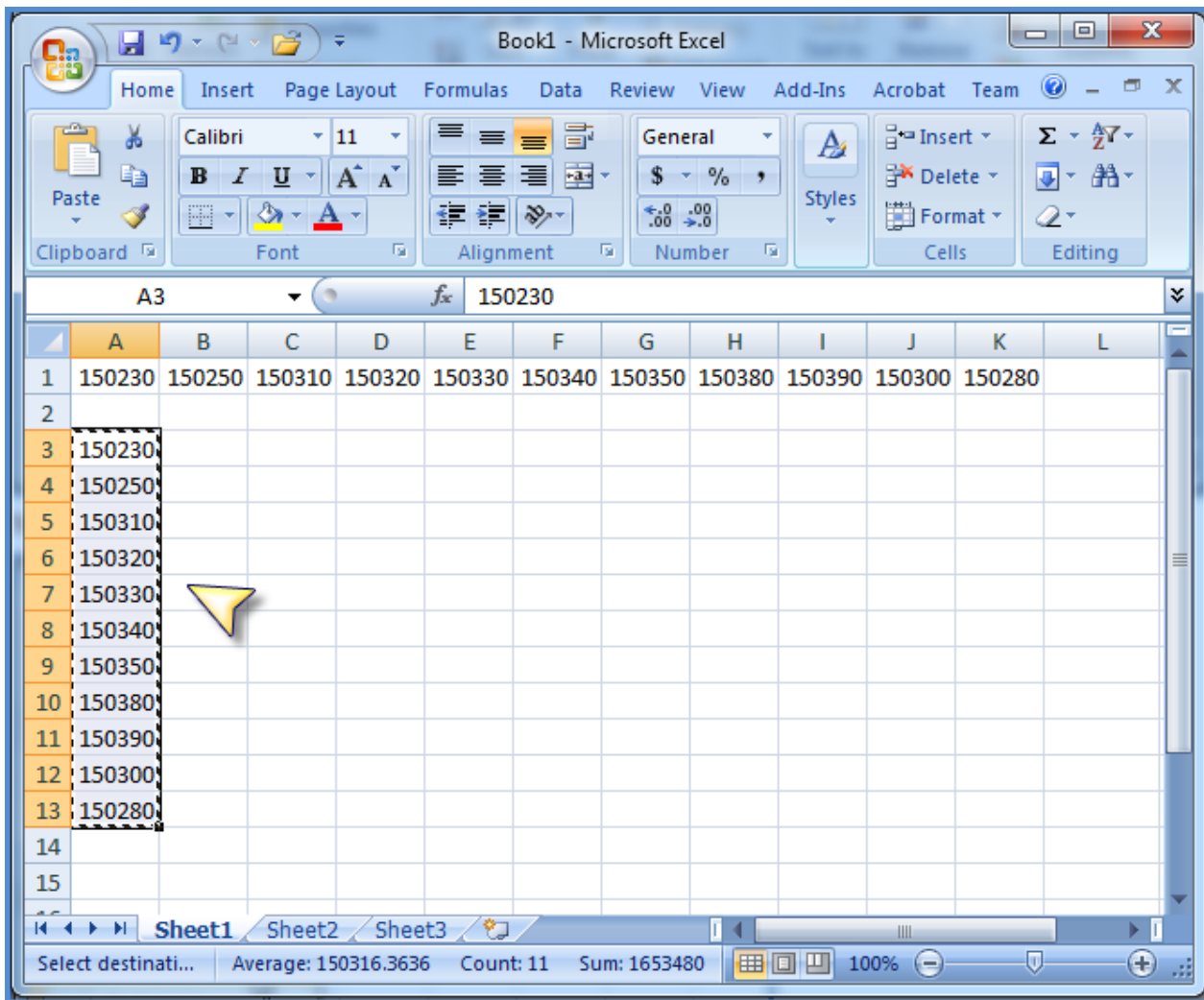
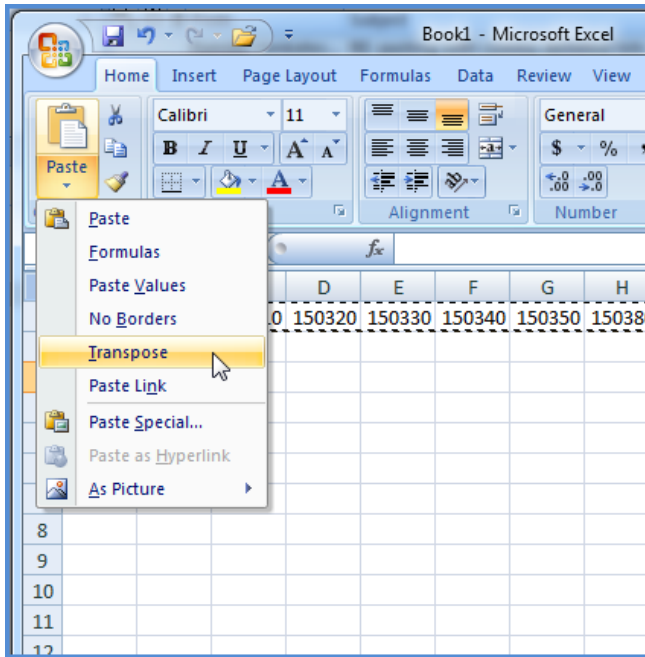
Here is a list of values for Customer Sold-To members in a text file.



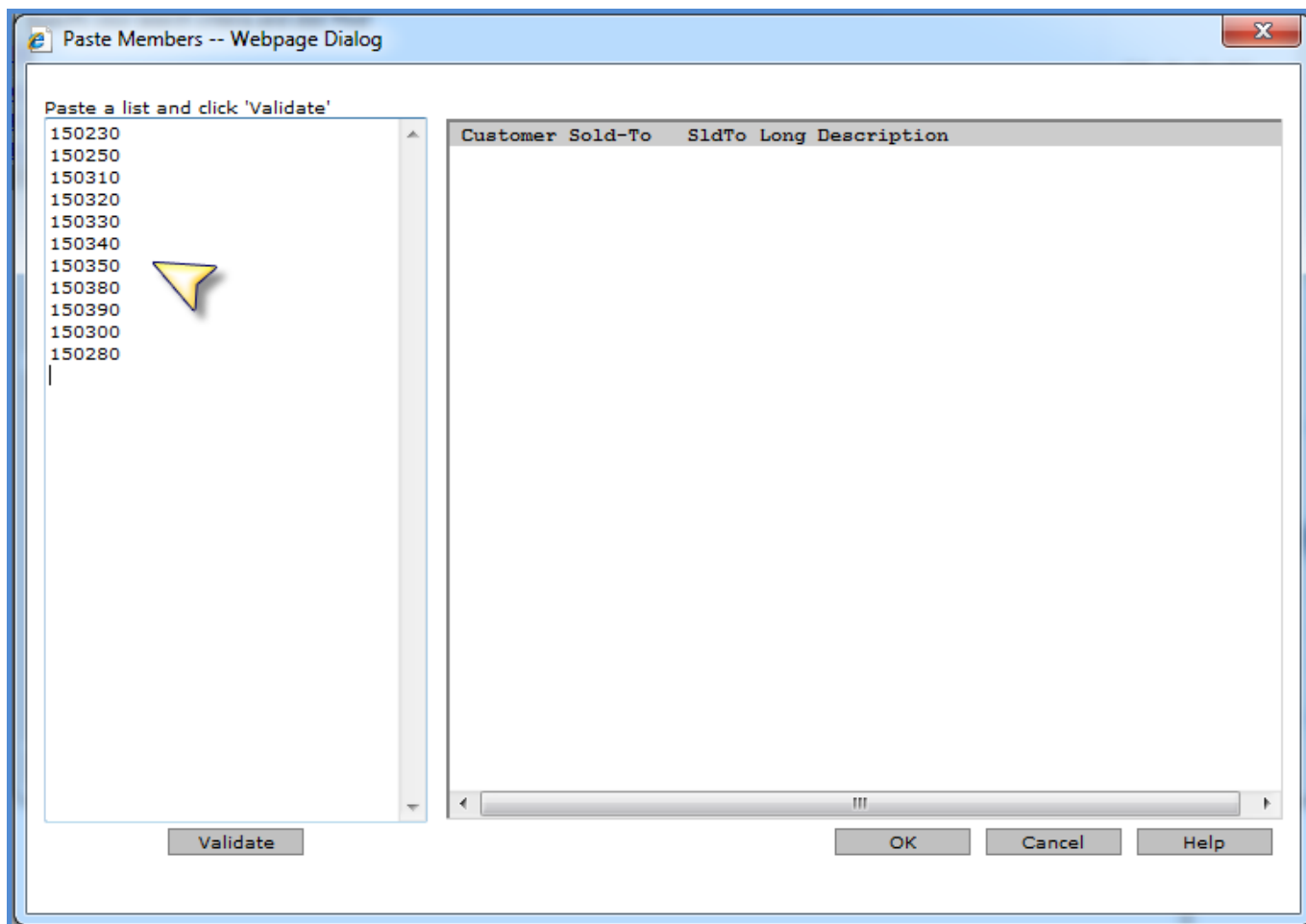
The text was imported into Excel to remove the commas.



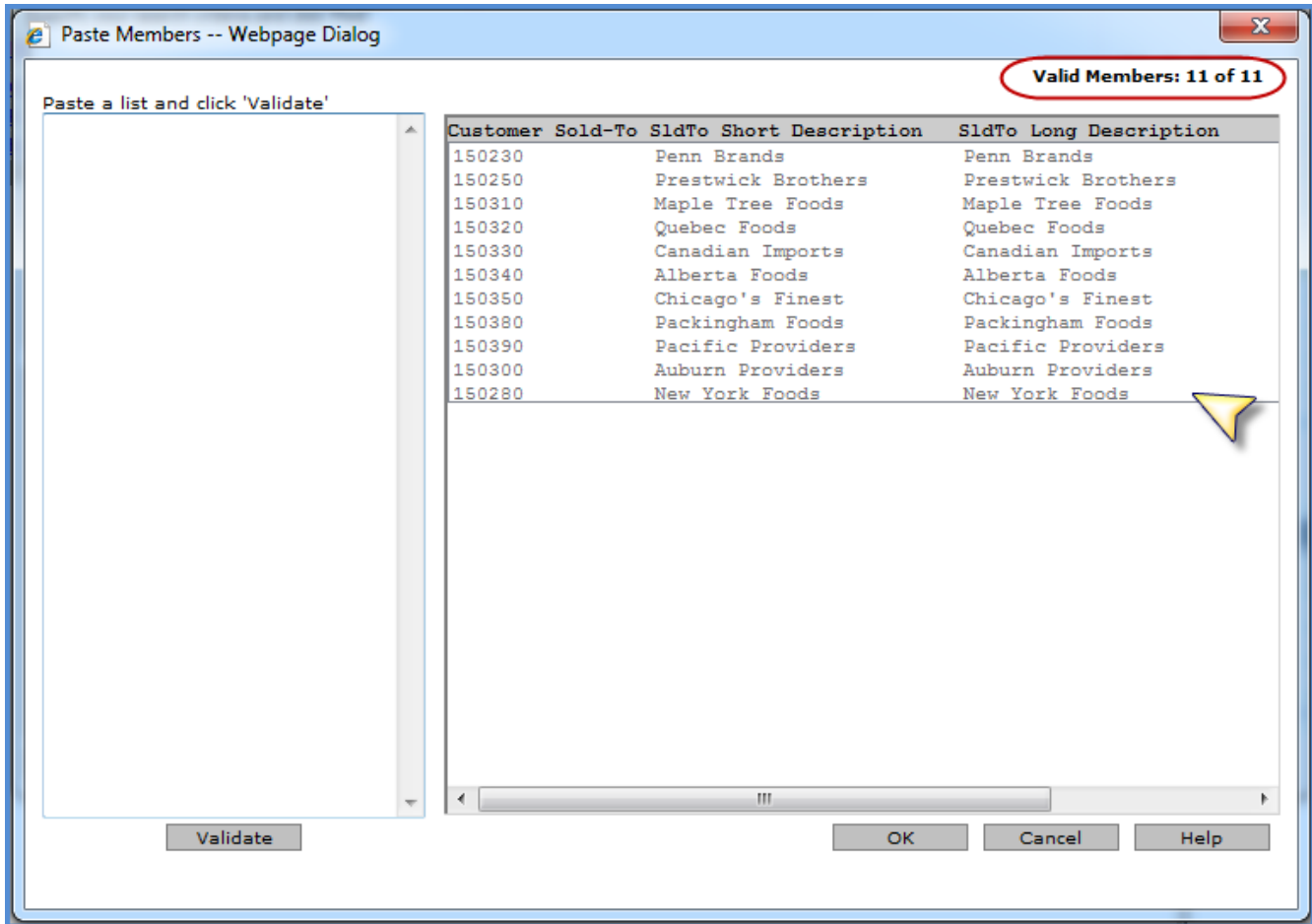
Then copied and pasted via a transpose to place the text into a single column.



Then the text was copied from that column into the Paste Members window.



Here is the window after the Validate button was clicked. All members were valid and there were no duplicates.



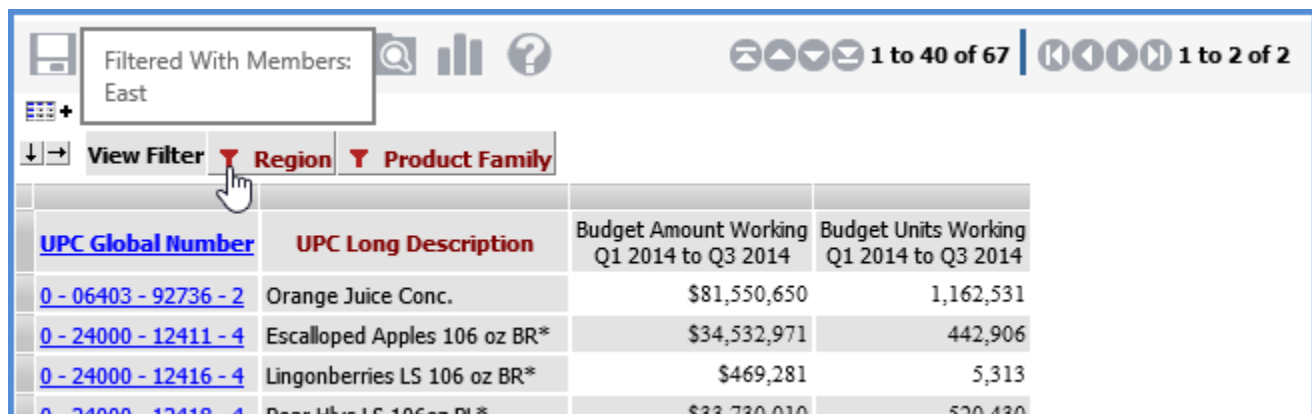
## Recommendations for View Filters

Here are some behaviors and recommendations to consider when setting up view filters in your views.

- [Multiple Levels in View Filters](#)
- [Calculated Measure Items and View Filters](#)

### Multiple Levels in View Filters

Levels in a View Filter [need a level filter defined](#) for them to have a filtering impact on a view. This is true whether there is a single level or multiple levels in the View Filter section. The following view has two levels in the View Filter. Region is filtered by a member list.





Product Family is filtered by a user list.

Filtered With User List: Product Family 60s

View Filter **Region** **Product Family**

UPC Global Number	UPC Long Description	Budget Amount Working Q1 2014 to Q3 2014	Budget Units Working Q1 2014 to Q3 2014
<a href="#">0 - 06403 - 92736 - 2</a>	Orange Juice Conc.	\$81,550,650	1,162,531
<a href="#">0 - 24000 - 12411 - 4</a>	Escalloped Apples 106 oz BR*	\$34,532,971	442,906
<a href="#">0 - 24000 - 12416 - 4</a>	Lingonberries LS 106 oz BR*	\$469,281	5,313
<a href="#">0 - 24000 - 12418 - 4</a>	Pear Hlvs LS 106oz PL*	\$33,730,010	520,430
<a href="#">0 - 24000 - 12419 - 4</a>	Pear Hlvs LS 106 oz BR*	\$11,305,509	144,914
<a href="#">0 - 24000 - 12422 - 4</a>	Apple Filling 106oz BR*	\$22,163,347	294,205
<a href="#">0 - 24000 - 12429 - 4</a>	Apple Filling 12oz PL*	\$28,872,651	810,503
<a href="#">0 - 24000 - 12430 - 4</a>	Applesauce 106oz BR*	\$25,244,052	327,925
<a href="#">0 - 24000 - 12431 - 4</a>	Applesauce 106oz PL*	\$101,809,018	1,622,014
<a href="#">0 - 24000 - 12432 - 4</a>	Blackberries 106oz BR*	\$9,353,277	106,127
<a href="#">0 - 24000 - 12438 - 4</a>	Sw Cherries Pittd 106oz BR*	\$23,900,987	243,269
<a href="#">0 - 24000 - 12440 - 4</a>	Cherry Filling 106 oz BR*	\$19,936,894	264,691
<a href="#">0 - 24000 - 12441 - 4</a>	Peach Hlvs HS 106oz PL*	\$265,508	4,083
<a href="#">0 - 24000 - 12443 - 4</a>	Peach Slcs HS 12oz PL*	\$968,593	25,087
<a href="#">0 - 24000 - 12446 - 4</a>	Prunes Pitted 106 oz BR*	\$1,568,703	20,365

The view results change if you remove the filter from either level. The following example shows the view after the member list filter was removed from Region. The view changed to show data for all Regions. The measure item values have increased, and the number of rows returned has increased from 67 to 72.

1 to 40 of 72

View Name: View Filters 1

View Filter **Region** **Product Family**

UPC Global Number	UPC Long Description	Budget Amount Working Q1 2014 to Q3 2014	Budget Units Working Q1 2014 to Q3 2014
<a href="#">0 - 06403 - 92736 - 2</a>	Orange Juice Conc.	\$107,866,368	1,540,531
<a href="#">0 - 24000 - 12411 - 4</a>	Escalloped Apples 106 oz BR*	\$44,870,327	575,424
<a href="#">0 - 24000 - 12416 - 4</a>	Lingonberries LS 106 oz BR*	\$469,281	5,313
<a href="#">0 - 24000 - 12418 - 4</a>	Pear Hlvs LS 106oz PL*	\$44,499,778	686,569
<a href="#">0 - 24000 - 12419 - 4</a>	Pear Hlvs LS 106 oz BR*	\$14,260,630	182,790
<a href="#">0 - 24000 - 12422 - 4</a>	Apple Filling 106oz BR*	\$27,243,730	361,620
<a href="#">0 - 24000 - 12429 - 4</a>	Apple Filling 12oz PL*	\$28,872,651	810,503
<a href="#">0 - 24000 - 12430 - 4</a>	Applesauce 106oz BR*	\$34,785,355	451,834
<a href="#">0 - 24000 - 12431 - 4</a>	Applesauce 106oz PL*	\$131,241,080	2,090,745
<a href="#">0 - 24000 - 12432 - 4</a>	Blackberries 106oz BR*	\$10,988,977	124,672
<a href="#">0 - 24000 - 12438 - 4</a>	Sw Cherries Pittd 106oz BR*	\$28,452,312	289,581
<a href="#">0 - 24000 - 12440 - 4</a>	Cherry Filling 106 oz BR*	\$19,936,894	264,691

### Calculated Measure Items and View Filters

View Filters affect regular, calculated, and distinct calculated measure items. There is a special case in which a View Filter will not affect calculated and distinct calculated measure items. That case is when a level is used in both the View Filter and the expression for the calculated or distinct calculated measure item. In that case, the View Filter will not impact the calculated or distinct calculated measure item for that level.

The next view has a calculated measure item with an expression that uses the Region Unit level. The expression is ([Region].[Region].[Region].[331],[Measures].[Data2 (Budget Units Working)]).

The screenshot shows a data table with the following columns: UPC Global Number, UPC Long Description, Budget Amount Working Q1 2014 to Q3 2014, Budget Units Working Q1 2014 to Q3 2014, and Budget Units Working Region West 331. The last column is highlighted with a red box. The table contains 18 rows of product data.

UPC Global Number	UPC Long Description	Budget Amount Working Q1 2014 to Q3 2014	Budget Units Working Q1 2014 to Q3 2014	Budget Units Working Region West 331
<a href="#">0 - 02749 - 25408 - 6</a>	Asparagus	\$116,213,555	1,545,622	423,304
<a href="#">0 - 02749 - 99231 - 6</a>	Strawberries	\$79,942,688	1,075,169	295,140
<a href="#">0 - 02749 - 99267 - 6</a>	Cherries, Bing	\$96,154,822	1,285,136	333,385
<a href="#">0 - 06403 - 92736 - 2</a>	Orange Juice Conc.	\$107,866,368	1,540,531	378,000
<a href="#">0 - 13800 - 30321 - 9</a>	Frozen Lasagna Dinner	\$156,537,087	1,608,142	371,753
<a href="#">0 - 13800 - 78934 - 9</a>	Meatloaf, Frozen	\$150,581,441	1,605,166	348,240
<a href="#">0 - 24000 - 12411 - 4</a>	Escalloped Apples 106 oz BR*	\$44,870,327	575,424	132,518
<a href="#">0 - 24000 - 12413 - 4</a>	Pnappl Slcs 12oz PL*	\$56,224,002	1,416,572	
<a href="#">0 - 24000 - 12416 - 4</a>	Lingonberries LS 106 oz BR*	\$469,281	5,313	
<a href="#">0 - 24000 - 12417 - 4</a>	Pnappl Slcs 106 oz BR*	\$4,751,053	59,372	59,372
<a href="#">0 - 24000 - 12418 - 4</a>	Pear Hlvs LS 106oz PL*	\$44,499,778	686,569	166,139
<a href="#">0 - 24000 - 12419 - 4</a>	Pear Hlvs LS 106 oz BR*	\$14,260,630	182,790	37,876
<a href="#">0 - 24000 - 12422 - 4</a>	Apple Filling 106oz BR*	\$27,243,730	361,620	67,415
<a href="#">0 - 24000 - 12429 - 4</a>	Apple Filling 12oz PL*	\$28,872,651	810,503	
<a href="#">0 - 24000 - 12430 - 4</a>	Applesauce 106oz BR*	\$34,785,355	451,834	123,909
<a href="#">0 - 24000 - 12431 - 4</a>	Applesauce 106oz PL*	\$131,241,080	2,090,745	468,731
<a href="#">0 - 24000 - 12432 - 4</a>	Blackberries 106oz BR*	\$10,988,977	124,672	18,545
<a href="#">0 - 24000 - 12433 - 4</a>	Pnappl Bites 106oz BR*	\$498,477	6,223	6,223

Then the Region level, filtered by member 330, is set up as a View Filter. The View Filter is ignored for the calculated measure item -- notice the measure item values have not changed for the calculated measure item.

Filtered With Members: East

1 to 40 of 102 | 1 to 3 of 3

View Filter Region

UPC Global Number	UPC Long Description	Budget Amount Working Q1 2014 to Q3 2014	Budget Units Working Q1 2014 to Q3 2014	Budget Units Working Region West 331
<a href="#">0 - 02749 - 25408 - 6</a>	Asparagus	\$84,703,055	1,122,318	423,304
<a href="#">0 - 02749 - 99231 - 6</a>	Strawberries	\$57,858,450	780,030	295,140
<a href="#">0 - 02749 - 99267 - 6</a>	Cherries, Bing	\$71,429,033	951,752	333,385
<a href="#">0 - 06403 - 92736 - 2</a>	Orange Juice Conc.	\$81,550,650	1,162,531	378,000
<a href="#">0 - 13800 - 30321 - 9</a>	Frozen Lasagna Dinner	\$120,571,548	1,236,389	371,753
<a href="#">0 - 13800 - 78934 - 9</a>	Meatloaf, Frozen	\$118,012,867	1,256,926	348,240
<a href="#">0 - 24000 - 12411 - 4</a>	Escalloped Apples 106 oz BR*	\$34,532,971	442,906	132,518
<a href="#">0 - 24000 - 12413 - 4</a>	Pnappl Slcs 12oz PL*	\$56,224,002	1,416,572	
<a href="#">0 - 24000 - 12416 - 4</a>	Lingonberries LS 106 oz BR*	\$469,281	5,313	
<a href="#">0 - 24000 - 12417 - 4</a>	Pnappl Slcs 106 oz BR*			59,372
<a href="#">0 - 24000 - 12418 - 4</a>	Pear Hlvs LS 106oz PL*	\$33,730,010	520,430	166,139
<a href="#">0 - 24000 - 12419 - 4</a>	Pear Hlvs LS 106 oz BR*	\$11,305,509	144,914	37,876
<a href="#">0 - 24000 - 12422 - 4</a>	Apple Filling 106oz BR*	\$22,163,347	294,205	67,415
<a href="#">0 - 24000 - 12429 - 4</a>	Apple Filling 12oz PL*	\$28,872,651	810,503	
<a href="#">0 - 24000 - 12430 - 4</a>	Applesauce 106oz BR*	\$25,244,052	327,925	123,909
<a href="#">0 - 24000 - 12431 - 4</a>	Applesauce 106oz PL*	\$101,809,018	1,622,014	468,731
<a href="#">0 - 24000 - 12432 - 4</a>	Blackberries 106oz BR*	\$9,353,277	106,127	18,545
<a href="#">0 - 24000 - 12433 - 4</a>	Pnappl Bites 106oz BR*			6,223

## Using a View Filters vs. a Level Filter

Use a view filter when you want the filter to be in effect no matter what other levels are visible in the view. The view filter will filter the entire view regardless of the levels that have been drilled to in the view. Use a level filter when you want to filter a particular level and any levels under that level in the view drill down path. Filters on individual levels are only active when you have drilled to that level in the view.

This view has a view filter that consists of member A from the ABC Classification Code level.

Filtered With Members: A

View Filter: ABC Classification Code

Region >>		East		West	
RepBroker	Product Brand	Actual Sales Amount Jan 2014 to Sep 2014	Actual Sales Units Jan 2014 to Sep 2014	Actual Sales Amount Jan 2014 to Sep 2014	Actual Sales Units Jan 2014 to Sep 2014
Janice Tierney	002	\$14,443,445	338,131		
	003	\$5,508,606	170,232		
	009	\$14,180,149	232,929		
	010	\$11,846,117	164,483		
	011	\$79,358,878	1,602,519		
	012	\$19,633,870	258,246		
	999	\$5,822,962	181,186		
	<b>Janice Tierney Total</b>	<b>\$150,794,027</b>	<b>2,947,727</b>		
Mark Fiedler	002	\$6,155,379	145,689	\$5,134,777	118,315
	003	\$2,932,304	86,205	\$1,378,494	44,880
	009	\$8,898,810	241,004	\$1,895,295	30,060
	010	\$5,341,178	79,800	\$3,428,554	49,743
	011	\$7,841,851	263,294	\$3,437,051	68,960
	012	\$5,572,627	69,194	\$7,136,178	94,117
	999	\$2,894,935	92,203	\$1,464,038	46,074
	<b>Mark Fiedler Total</b>	<b>\$39,637,083</b>	<b>977,388</b>	<b>\$23,874,386</b>	<b>452,149</b>
Michelle Knapp	002	\$3,345,991	75,802	\$1,344,085	34,208
	003	\$369,001	10,337	\$792,715	24,276
	009	\$491,482	7,973	\$2,366,360	38,415
	010	\$1,460,151	23,093	\$1,454,814	21,241
	011	\$1,558,559	31,191	\$2,270,675	45,125
	012	\$5,360,213	69,417	\$4,352,447	57,007
	999	\$763,771	23,922	\$667,855	20,105
	<b>Michelle Knapp Total</b>	<b>\$13,349,168</b>	<b>241,736</b>	<b>\$13,248,952</b>	<b>240,377</b>
<b>Grand Total</b>		<b>\$203,780,278</b>	<b>4,166,851</b>	<b>\$37,123,338</b>	<b>692,526</b>

Wherever you drill to in the view, you will see data relevant to member A. Here is the same view after drilling up from Product Brand to RepBroker. Notice the grand totals are the same as they were in the prior state of the view.

View Name: <i>View Filter Examples</i>				
View Filter <b>ABC Classification Code</b>				
Region >>	East		West	
RepBroker	Actual Sales Amount Jan 2014 to Sep 2014	Actual Sales Units Jan 2014 to Sep 2014	Actual Sales Amount Jan 2014 to Sep 2014	Actual Sales Units Jan 2014 to Sep 2014
Janice Tierney	\$150,794,027	2,947,727		
Mark Fiedler	\$39,637,083	977,388	\$23,874,386	452,149
Michelle Knapp	\$13,349,168	241,736	\$13,248,952	240,377
<b>Grand Total</b>	<b>\$203,780,278</b>	<b>4,166,851</b>	<b>\$37,123,338</b>	<b>692,526</b>

Here is the same view with the ABC Classification Code level positioned on rows, still filtered for member A. The level is visible, so the filter is in effect.

View Name: <i>View Filter Examples</i>					
View Filter					
Region >>		East		West	
RepBroker	ABC Classification Code	Actual Sales Amount Jan 2014 to Sep 2014	Actual Sales Units Jan 2014 to Sep 2014	Actual Sales Amount Jan 2014 to Sep 2014	Actual Sales Units Jan 2014 to Sep 2014
Janice Tierney	A	\$150,794,027	2,947,727		
<b>Janice Tierney Total</b>		<b>\$150,794,027</b>	<b>2,947,727</b>		
Mark Fiedler	A	\$39,637,083	977,388	\$23,874,386	452,149
<b>Mark Fiedler Total</b>		<b>\$39,637,083</b>	<b>977,388</b>	<b>\$23,874,386</b>	<b>452,149</b>
Michelle Knapp	A	\$13,349,168	241,736	\$13,248,952	240,377
<b>Michelle Knapp Total</b>		<b>\$13,349,168</b>	<b>241,736</b>	<b>\$13,248,952</b>	<b>240,377</b>
<b>Grand Total</b>		<b>\$203,780,278</b>	<b>4,166,851</b>	<b>\$37,123,338</b>	<b>692,526</b>

When you drill up in the view, the ABC Classification Code level is hidden; therefore, the ABC Classification Code filter is no longer active. Notice the grand totals are higher than what they were in the prior state of the view. That is because all measure items values for the RepBrokers are being returned versus just the values for items with an ABC Classification Code of A.

View Name: <i>View Filter Examples</i>				
View Filter				
Region >>	East		West	
RepBroker	Actual Sales Amount Jan 2014 to Sep 2014	Actual Sales Units Jan 2014 to Sep 2014	Actual Sales Amount Jan 2014 to Sep 2014	Actual Sales Units Jan 2014 to Sep 2014
Janice Tierney	\$540,557,780	10,180,005		
Mark Fiedler	\$142,534,177	3,207,275	\$75,915,384	1,485,722
Michelle Knapp	\$41,236,689	823,724	\$52,627,779	985,602
<b>Grand Total</b>	<b>\$724,328,646</b>	<b>14,211,004</b>	<b>\$128,543,163</b>	<b>2,471,324</b>

## Using Relationship and Empty Filters

An [overview](#) of relationship and empty filters is provided below. Additional information is provided about when to use them and how the filters behave depending on other characteristics of a view. See these sections:

- [Period Based Views](#)
- [All Others Data and Empty Filters](#)
- [Null vs. Non-null Values and Empty Filters](#)
- [Calculated Measure Items](#)
- [Views with Levels and Measure Items on the Same Axis](#)
- [Level Filters and Relationship Filters](#)
- [View Filters](#)

### Overview

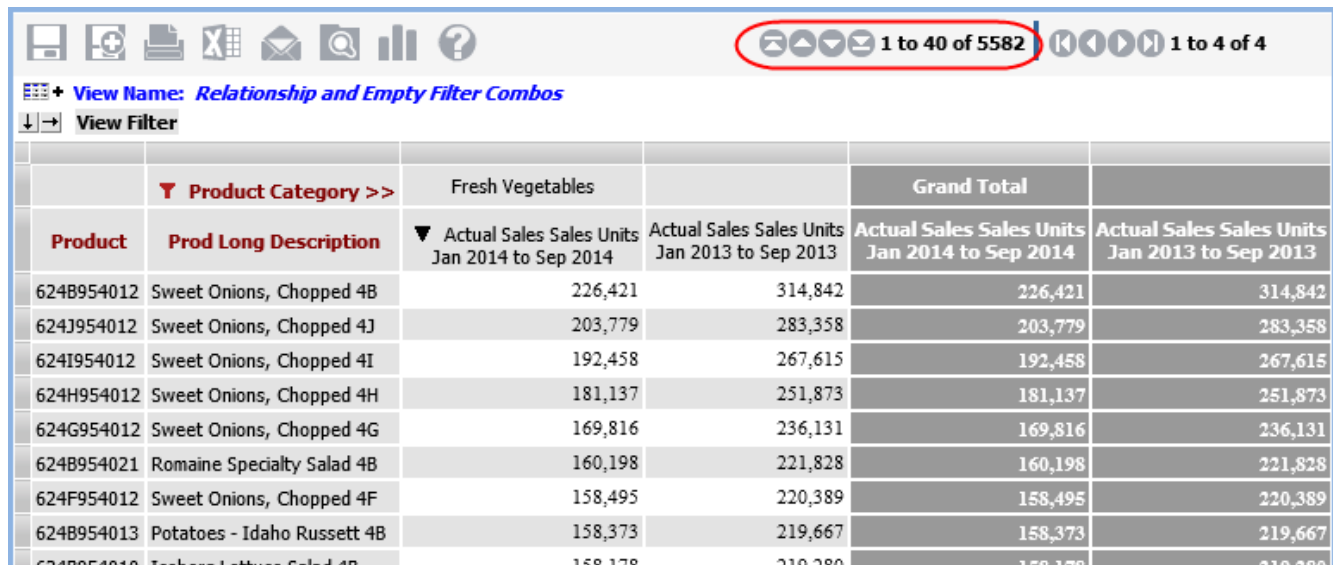
Use the Relationship and Empty Filters to filter out members of a result set where no related data exists. Related data is based on the visible measure items of the view. Filtering out those members where no data exists related to the measure items in the view produces a more focused result set.

By default, the Relationship and Empty Filter properties are enabled (Yes) for rows and columns. If you wanted to see all members on an axis regardless of related data, you would set the Relationship and Empty Filter properties to No. These properties are controlled through the [Properties windows for rows](#) and [columns](#).

For example, in a view displaying the current year YTD sales by product and where the Relationship and Empty Filters are enabled, the result set would include only product members that have sales for the current year (related data). When the Relationship and Empty Filter are disabled, the result set would include all products -- those that have sales as well as those that don't have sales.

### Relationship Filter and Empty Filter = No

Here is the example view with both properties set to No, returning all products. Results show products with and without YTD sales.



Product Category >>		Fresh Vegetables		Grand Total	
Product	Prod Long Description	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Units Jan 2013 to Sep 2013	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Units Jan 2013 to Sep 2013
624B954012	Sweet Onions, Chopped 4B	226,421	314,842	226,421	314,842
624J954012	Sweet Onions, Chopped 4J	203,779	283,358	203,779	283,358
624I954012	Sweet Onions, Chopped 4I	192,458	267,615	192,458	267,615
624H954012	Sweet Onions, Chopped 4H	181,137	251,873	181,137	251,873
624G954012	Sweet Onions, Chopped 4G	169,816	236,131	169,816	236,131
624B954021	Romaine Specialty Salad 4B	160,198	221,828	160,198	221,828
624F954012	Sweet Onions, Chopped 4F	158,495	220,389	158,495	220,389
624B954013	Potatoes - Idaho Russett 4B	158,373	219,667	158,373	219,667
624B954010	Tasker Lettuce Salad 4B	158,178	219,380	158,178	219,380

### Relationship Filter = Yes and Empty Filter = No

Here is the view when just the Relationship is set to Yes. The row count has decreased because results now show only the products that have YTD sales.

Product Category >>		Fresh Vegetables		Grand Total	
Product	Prod Long Description	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Units Jan 2013 to Sep 2013	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Units Jan 2013 to Sep 2013
624B954012	Sweet Onions, Chopped 4B	226,421	314,842	226,421	314,842
624J954012	Sweet Onions, Chopped 4J	203,779	283,358	203,779	283,358
624I954012	Sweet Onions, Chopped 4I	192,458	267,615	192,458	267,615
624H954012	Sweet Onions, Chopped 4H	181,137	251,873	181,137	251,873
624G954012	Sweet Onions, Chopped 4G	169,816	236,131	169,816	236,131
624B954021	Romaine Specialty Salad 4B	160,198	221,828	160,198	221,828
624F954012	Sweet Onions, Chopped 4F	158,495	220,389	158,495	220,389
624B954013	Potatoes - Idaho Russett 4B	158,373	219,667	158,373	219,667
624B954010	Iceberg Lettuce Salad 4B	158,178	219,280	158,178	219,280
624E954012	Sweet Onions, Chopped 4E	147,174	204,647	147,174	204,647

### Relationship Filter and Empty Filter = Yes

Here is the view when Empty Filter also is set to Yes. The row count is only 250 after this change because the view only returns products that have YTD sales given the level and member(s) on columns. In this case, returning only products with YTD sales for the Fresh Vegetables member of Product Category.

Product Category >>		Fresh Vegetables		Grand Total	
Product	Prod Long Description	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Units Jan 2013 to Sep 2013	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Units Jan 2013 to Sep 2013
624B954012	Sweet Onions, Chopped 4B	226,421	314,842	226,421	314,842
624J954012	Sweet Onions, Chopped 4J	203,779	283,358	203,779	283,358
624I954012	Sweet Onions, Chopped 4I	192,458	267,615	192,458	267,615
624H954012	Sweet Onions, Chopped 4H	181,137	251,873	181,137	251,873
624G954012	Sweet Onions, Chopped 4G	169,816	236,131	169,816	236,131
624B954021	Romaine Specialty Salad 4B	160,198	221,828	160,198	221,828
624F954012	Sweet Onions, Chopped 4F	158,495	220,389	158,495	220,389
624B954013	Potatoes - Idaho Russett 4B	158,373	219,667	158,373	219,667
624B954010	Iceberg Lettuce Salad 4B	158,178	219,280	158,178	219,280
624E954012	Sweet Onions, Chopped 4E	147,174	204,647	147,174	204,647

**Period Based Views**

For period based views that have levels from time hierarchies visible on rows or columns, it is recommended that you set the Relationship Filter and Empty Filter properties to No for the axis where the time levels are used. This will ensure that all periods will display in the view, even those for which no data exists.

**Example 1**

Levels from the Weeks time hierarchy are on rows in this view. Both Relationship and Empty Filter are No, which means all weeks display -- even those where there is no related data. Rows for all 52 weeks display in calendar order.

Product >>	620A914004		All Others		Grand Total	
Prod Long Description	FrtCktail HS 12 oz BR* 0A					
Weeks	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units
<a href="#">Week 1</a>			\$270,847,881	4,747,679	\$270,847,881	4,747,679
<a href="#">Week 2</a>			\$262,296,006	4,675,739	\$262,296,006	4,675,739
<a href="#">Week 3</a>			\$262,573,713	4,684,978	\$262,573,713	4,684,978
<a href="#">Week 4</a>			\$264,434,998	4,716,801	\$264,434,998	4,716,801
<a href="#">Week 5</a>	\$3,851	87	\$465,723,116	8,337,493	\$465,726,967	8,337,580
<a href="#">Week 6</a>	\$3,851	87	\$228,126,968	4,129,746	\$228,130,818	4,129,833
<a href="#">Week 7</a>	\$6,595	149	\$233,485,768	4,229,869	\$233,492,364	4,230,018
<a href="#">Week 8</a>	\$3,851	87	\$232,594,744	4,204,751	\$232,598,595	4,204,838
<a href="#">Week 9</a>	\$10,796	244	\$430,329,745	7,780,639	\$430,340,541	7,780,883
<a href="#">Week 10</a>	\$3,985	91	\$223,440,646	4,057,691	\$223,444,632	4,057,781
<a href="#">Week 11</a>	\$3,985	91	\$235,359,251	4,276,195	\$235,363,236	4,276,285
<a href="#">Week 12</a>	\$3,985	91	\$239,654,553	4,358,835	\$239,658,538	4,358,926
<a href="#">Week 13</a>	\$11,070	252	\$239,618,440	4,371,923	\$239,629,510	4,372,174
<a href="#">Week 14</a>	\$3,985	91	\$400,946,905	7,264,802	\$400,950,890	7,264,893
<a href="#">Week 15</a>			\$239,073,564	4,326,664	\$239,073,564	4,326,664
<a href="#">Week 16</a>			\$257,422,344	5,615,653	\$257,422,344	5,615,653
<a href="#">Week 17</a>			\$254,074,802	4,612,384	\$254,074,802	4,612,384
<a href="#">Week 18</a>			\$475,959,021	8,605,724	\$475,959,021	8,605,724



Here is the same view with Relationship and Empty Filter set to Yes. Only the weeks that have related data display.

Product >>	620A914004		All Others			Grand Total	
Prod Long Description	FrtCktail HS 12 oz BR* 0A						
Weeks	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	Actual Sales Sales Amount	Actual Sales Sales Units	
<a href="#">Week 5</a>	\$3,851	87	\$465,723,116	8,337,493	\$465,726,967	8,337,580	
<a href="#">Week 6</a>	\$3,851	87	\$228,126,968	4,129,746	\$228,130,818	4,129,833	
<a href="#">Week 7</a>	\$6,595	149	\$233,485,768	4,229,869	\$233,492,364	4,230,018	
<a href="#">Week 8</a>	\$3,851	87	\$232,594,744	4,204,751	\$232,598,595	4,204,838	
<a href="#">Week 9</a>	\$10,796	244	\$430,329,745	7,780,639	\$430,340,541	7,780,883	
<a href="#">Week 10</a>	\$3,985	91	\$223,440,646	4,057,691	\$223,444,632	4,057,781	
<a href="#">Week 11</a>	\$3,985	91	\$235,359,251	4,276,195	\$235,363,236	4,276,285	
<a href="#">Week 12</a>	\$3,985	91	\$239,654,553	4,358,835	\$239,658,538	4,358,926	
<a href="#">Week 13</a>	\$11,070	252	\$239,618,440	4,371,923	\$239,629,510	4,372,174	
<a href="#">Week 14</a>	\$3,985	91	\$400,946,905	7,264,802	\$400,950,890	7,264,893	
<a href="#">Week 31</a>	\$1,474	34	\$666,132,486	11,923,043	\$666,133,960	11,923,077	
<a href="#">Week 32</a>	\$1,474	34	\$314,153,761	5,589,879	\$314,155,235	5,589,913	

## Example 2

Levels from the Year Months time hierarchy are on rows in this view. Here is the view where both Relationship and Empty Filter are No, which means the rows for December through October of 2014 still display even though there is no related data yet for those months (the current month of the year is September, so no data exists yet for the months after that current month).

+ View Name: <i>Period Based Rel and EmptyFilter</i>			
View Filter			
▼ Year	Months	Actual Sales Sales Amount	Actual Sales Sales Units
2014	January	\$350,714,364	6,258,847
	February	\$322,332,391	5,825,361
	March	\$361,004,874	6,553,215
	April	\$327,807,806	6,867,712
	May	\$352,020,685	7,798,802
	June	\$375,671,295	8,910,194
	July	\$391,977,666	9,613,083
	August	\$485,764,510	12,744,274
	September	\$569,861,272	12,093,515
	October		
	November		
	December		
<b>2014 Total</b>		<b>\$3,537,154,864</b>	<b>76,665,003</b>
2013	January	\$650,655,727	11,579,068
	February	\$549,211,669	9,929,320
	March	\$652,242,257	11,862,018
	April	\$645,861,506	11,733,747
	May	\$468,934,747	8,413,481

Here is the same view with Relationship and Empty Filter set to Yes.

+ View Name: <i>Period Based Rel and EmptyFilter</i>				
View Filter				
▼ Year	Months	Actual Sales Sales Amount	Actual Sales Sales Units	
2014	January	\$350,714,364	6,258,847	
	February	\$322,332,391	5,825,361	
	March	\$361,004,874	6,553,215	
	April	\$327,807,806	6,867,712	
	May	\$352,020,685	7,798,802	
	June	\$375,671,295	8,910,194	
	July	\$391,977,666	9,613,083	
	August	\$485,764,510	12,744,274	
	September	\$569,861,272	12,093,515	
	<b>2014 Total</b>		<b>\$3,537,154,864</b>	<b>76,665,003</b>
	2013	January	\$650,655,727	11,579,068
		February	\$549,211,669	9,929,320
March		\$652,242,257	11,862,018	
April		\$645,861,506	11,733,747	
May		\$468,934,747	8,413,481	

## All Others Data and Empty Filters

The Empty Filter setting has no impact on All Others rows and columns. If an All Others row or column has no data and Empty Filter is set to Yes, that empty row or column will remain in the view.

View Name: All Others and Empty Filters			
View Filter			
Ship-To Territory	STerr Long Description	Daily Sales Amount Jun 17 2014 to Sep 15 2014	Daily Sales Units Jun 17 2014 to Sep 15 2014
<a href="#">1100</a>	Southwest	\$1,083,805	21,737
<a href="#">1101</a>	South Central	\$2,429,386	55,702
<a href="#">1102</a>	Gulf Coast	\$1,446,060	31,767
<a href="#">1103</a>	Midlantic	\$1,560,213	35,775
<a href="#">1104</a>	New England	\$3,145,793	71,858
<a href="#">1105</a>	Great Lakes	\$447,905	9,307
<a href="#">1106</a>	Great Plains	\$1,570,445	35,951
<a href="#">1107</a>	Northwest	\$1,023,632	21,883
<a href="#">1108</a>	Western Provinces	\$1,169,909	27,338
<a href="#">1109</a>	Central Provinces	\$1,516,509	31,967
<a href="#">1111</a>	Eastern Atlantic Provinces	\$2,550,581	57,743
All Others			
Grand Total		\$17,944,239	401,028

**View Explorer**

- All Others and Empty Filters
  - Parameter Groups
  - Grid
    - Rows
      - Ship-To Territory
      - Product ABC Class
      - Product
    - Columns

**Properties - Rows**

Drilldown View	None
Repeating Values	No
Totals Default	Yes
Others Summary	Yes
Relationship Filter	Yes
Empty Filter	Yes
Axis Filter	

## Null vs. Non-null Values and Empty Filters

The Empty Filter only considers cells to be empty when they have null or no data in them. Cells with zero (0) or text are not considered empty and therefore will not be excluded from the result set.

## Calculated Measure Items

The Relationship Filter considers all visible measure items (regular and calculated) when determining which members to include in the result set. This means that each calculated measure item expression is performed for all members. In cases where the expression contains a constant or an attribute relationship, this can cause an unexpected result set. In cases where the expression is time consuming, view performance can be impacted.

When an expression contains a constant or an attribute relationship, the calculated measure item produces a non-null value for every member, this results in the Relationship Filter not excluding any members from the result set since every member has "related" data. For example, if a calculated measure item expression includes an attribute relationship, then every member will have related data. You can set up conditions in the expression for the calculated measure item to be executed only under certain conditions. An example follows.

The Extended List Price measure item in the next view is a calculated measure item which has the expression:

```
[Product].[Product].Properties("Prod Current List Price") * [Measures].[Data13 (Actual Sales Sales Units Jan 2014 to Sep 2014)]
```

The Prod Current List Price in the expression is an attribute relationship. Every product has a list price, which means every product will have an Extended List Price result and no rows will be removed from the view by the relationship filter. If the calculation is made conditional to only execute when YTD sales units exists, then the view will contain only those products that have YTD sales units.

Product	Prod Current List Price	Actual Sales Sales Units Jan 2014 to Sep 2014	Ext List Price
<a href="#">Applesauce 106oz PL* 5B</a>	65	286,688	\$18,634,709.28
<a href="#">Pnappl Slcs 12 oz BR* 5B</a>	48	261,553	\$12,554,536.11
<a href="#">Peach Slcs LS 12oz BR* 5B</a>	47	259,604	\$12,201,387.43
<a href="#">Applesauce 106oz PL* 5J</a>	65	258,019	\$16,771,238.53
<a href="#">Applesauce 106oz PL* 5I</a>	65	243,685	\$15,839,502.93
<a href="#">Applesauce 12oz PL* 5B</a>	41	243,543	\$9,985,255.10
<a href="#">Frozen Lasagna Dinner 4B</a>	109	238,731	\$26,021,686.76
<a href="#">Meatloaf, Frozen 4B</a>	107	238,676	\$25,538,319.52
<a href="#">Apples Red Delicious 4B</a>	46	237,311	\$10,916,327.65
<a href="#">Pnappl Slcs 12 oz BR* 5J</a>	48	235,398	\$11,299,082.64
<a href="#">Peach Slcs LS 12oz BR* 5J</a>	47	233,644	\$10,981,248.78
<a href="#">Applesauce 106oz PL* 5H</a>	65	229,350	\$14,907,767.44

**EXPRESSION - EXT LIST PRICE**

**View Items and Functions**

- Hierarchies
  - Product
    - Product
      - Attribute Relationships
        - Prod Long Description
        - Prod Current List Price**
      - Members
    - Product Brand
    - Product Category
    - Product ABC Class
    - Product Category Role

**Expression**

```
[Product].[Product].Properties("Prod Current List Price") *
[Measures].[Data13 (Actual Sales Sales Units Jan 2014 to
Sep 2014)]
```

Here is the expression, modified to check for YTD sales units. This optimized expression will not proceed with the expression calculation in cases where no YTD Sales Units exists

```
IIF([Measures].[Data13 (Actual Sales Sales Units Jan 2014 to Sep 2014)] <> Null,
[Product].[Product].Properties("Prod Current List Price") * [Measures].[Data13 (Actual Sales Sales Units Jan 2014
to Sep 2014)], null)
```

Here is the updated view, which now has fewer rows because the relationship filter removed rows without YTD Sales units.

Product	Prod Current List Price	Actual Sales Sales Units Jan 2014 to Sep 2014	Ext List Price
<a href="#">Applesauce 106oz PL* 5B</a>	65	286,688	\$18,634,709.28
<a href="#">Pnappl Slcs 12 oz BR* 5B</a>	48	261,553	\$12,554,536.11
<a href="#">Peach Slcs LS 12oz BR* 5B</a>	47	259,604	\$12,201,387.43
<a href="#">Applesauce 106oz PL* 5J</a>	65	258,019	\$16,771,238.53
<a href="#">Applesauce 106oz PL* 5I</a>	65	243,685	\$15,839,502.93
<a href="#">Applesauce 12oz PL* 5B</a>	41	243,543	\$9,985,255.10
<a href="#">Frozen Lasagna Dinner 4B</a>	109	238,731	\$26,021,686.76
<a href="#">Meatloaf, Frozen 4B</a>	107	238,676	\$25,538,319.52
<a href="#">Apples Red Delicious 4B</a>	46	237,311	\$10,916,327.65
<a href="#">Pnappl Slcs 12 oz BR* 5J</a>	48	235,398	\$11,299,082.64
<a href="#">Peach Slcs LS 12oz BR* 5J</a>	47	233,644	\$10,981,248.78
<a href="#">Applesauce 106oz PL* 5H</a>	65	229,350	\$14,907,767.44
<a href="#">Sweet Onions, Chopped 4B</a>	67	226,421	\$14,038,123.71

The next view contains YTD calculated measure items for sales amount and units. The expressions for both measure items use named sets and therefore were optimized by making them conditional based on the existence of related data. The YTD calculations will execute only when Actual Sales Sales Amount and Actual Sales Sales Units respectively are not null. Here is the expression for the YTD Sales Amount measure item. A similar expression was used for the YTD Sales Units measure item.

IIF([Measures].[Data1 (Actual Sales Sales Amount)] = null, null, Sum(CrossJoin([Time].[Year Based Months Based].[Year Based].[Current Year],[Act Sales YTD Months]),[Measures].[Data1 (Actual Sales Sales Amount)]))

RepBroker	YTD Sales Amount	YTD Sales Units
<a href="#">300</a>	\$1,236,249,042	31,341,259
<a href="#">301</a>	\$80,279,499	1,689,678
<a href="#">302</a>	\$218,449,561	4,692,998
<a href="#">303</a>	\$93,864,469	1,809,326
<a href="#">304</a>	\$94,960,867	1,875,791
<a href="#">305</a>	\$540,557,780	10,180,005
<a href="#">306</a>	\$123,739,278	2,390,317
<a href="#">307</a>	\$36,226,887	704,599
<a href="#">308</a>	\$95,845,090	1,841,984
<a href="#">309</a>	\$78,406,950	1,562,082
<a href="#">312</a>	\$335,926,577	7,375,334
<a href="#">313</a>	\$446,627,746	8,058,285
<a href="#">315</a>	\$112,408,366	2,282,187
<a href="#">318</a>	\$43,612,752	861,157
<b>Grand Total</b>	<b>\$3,537,154,864</b>	<b>76,665,003</b>

### Views with Levels and Measure Items on the Same Axis

When a view has levels and measure items on the same axis, only members that have null data for all measure items will be removed by a Relationship and Empty Filter.

### Level Filters and Relationship Filters

Relationship Filters on one axis will ignore level filters on the opposite axis when determining which members have related data. For example, this view has a filter on the Customer Class level in columns that returns class 91. Relationship Filter is enabled for rows and returns all Distribution Channels with YTD Sales Units. Once the Customer Class filter is applied, the result set may contain empty rows. In this case two distribution channels do not have any YTD Sales Units for Customer Class 91, but do have YTD Sales for another Customer Class. These empty rows could be removed by enabling the Empty Filter.

		91	Grand Total
<b>Customer Class &gt;&gt;</b>		91	Grand Total
<b>C Clas Long Description</b>		CAN Customer	
<b>Distribution Channel</b>	<b>DsChn Long Description</b>	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Units Jan 2014 to Sep 2014
<a href="#">DIR</a>	Direct		
<a href="#">INB</a>	Indirect - Broker		
<a href="#">INW</a>	Indirect - Wholesaler	3,251,475	3,251,475
<b>Grand Total</b>		3,251,475	3,251,475

Here is the view after Empty Filter has been enabled on rows.

		91	Grand Total
<b>Customer Class &gt;&gt;</b>		91	Grand Total
<b>C Clas Long Description</b>		CAN Customer	
<b>Distribution Channel</b>	<b>DsChn Long Description</b>	Actual Sales Sales Units Jan 2014 to Sep 2014	Actual Sales Sales Units Jan 2014 to Sep 2014
<a href="#">INW</a>	Indirect - Wholesaler	3,251,475	3,251,475
<b>Grand Total</b>		3,251,475	3,251,475

### View Filters

The sequence in which filters are executed in relation to View Filters is View Filter first, then Relationship Filter, and then Empty Filter. Only data that meets the View Filter criteria will be considered by the Relationship Filter.

### Can Measure Items with Conditional Formatting including Images and Indicators be included in a Filter?

Yes. When a measure item with an associated image or indicator is filtered, only the value of the measure item is used in the filter. The image and indicator are ignored by the filter.

### Why can't I Access the Select Members Window?

This happens if administrative settings are set up such that only the [Advanced Selected Members window](#) is available for a level. Administrators may choose to set up the application that way for levels with a large number of members, for example, the Lot level. In such cases, the Select button will not display in the Advanced Select Members window.

### Why can't I Filter or Sort Cumulative Calculated Measure Items?

The results of a cumulative calculation are accumulating in nature; therefore, sorting and filtering functionality is not available on calculated measure items that use cumulative functions in their expression. Those functions include the Cumulative Total, Cumulative Percent of Total, ABC Cumulative, and ABC Cumulative Percent of Total functions.

- Sort and Filter options will not display on the [pop-up menu](#) of a calculated measure item that uses a cumulative function.
- Sort and Filter properties will be disabled in the [Properties window](#) for those measure items.
- If a non-cumulative calculated measure item has been sorted or filtered and you want to change it to a cumulative calculated measure item, you must first remove the sorting or filtering.

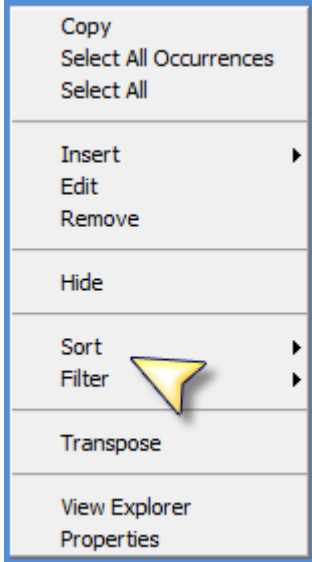
The view that follows shows an example of this scenario. The "Percent of Total" calculated measure item can be sorted and filtered because it does not perform a cumulative calculation. The "Cumulative % of Total" calculated measure item cannot be sorted and filtered.

View Name: *RepBroker Cumulative Sales*

View Filter

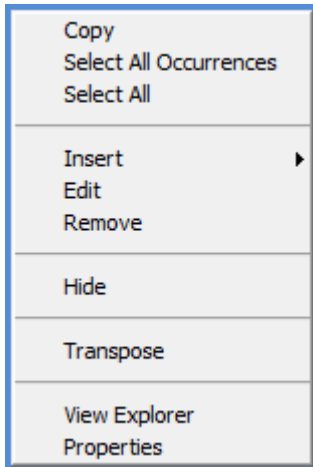
RepBroker	Product Category	▲ Actual Sales Jan 2014 to Sep 2014	Percent of Total	Cumulative % of Total
Mary Lopez	Frozen Fruit Products	\$5,029,230	.90%	.90%
	Pork	\$7,651,423	1.37%	2.27%
	Beef	\$11,814,665	2.11%	4.38%
	Frozen Prepared Dinners	\$15,690,970	2.81%	7.19%
	Fresh Fruit	\$19,235,673	3.44%	10.63%
	Canned Fruit	\$25,735,340	4.60%	15.23%
	Fresh Vegetables	\$27,251,065	4.87%	20.11%
	<b>Mary Lopez Total</b>		<b>\$112,408,366</b>	
Eleanor Toman	Frozen Fruit Products	\$9,455,123	1.69%	21.80%
	Pork	\$17,749,079	3.17%	24.97%
	Beef	\$18,908,033	3.38%	28.36%
	Fresh Fruit	\$32,031,428	5.73%	34.09%
	Frozen Prepared Dinners	\$44,281,161	7.92%	42.01%
	Fresh Vegetables	\$47,904,721	8.57%	50.58%
	Canned Fruit	\$276,298,202	49.42%	100.00%
	<b>Eleanor Toman Total</b>		<b>\$446,627,746</b>	
<b>Grand Total</b>		<b>\$559,036,113</b>		

Here's the pop-up menu for Percent of Total, with the Sort and Filter options:





Here's the pop-up menu for Cumulative Percent of Total, without Sort and Filter options:



The "Percent of Total" calculated measure item in the next view has a Recursive Top Count filter applied to it. If you attempted to change the expression for "Percent of Total" to a cumulative percent of total, a message would display stating that you need to remove the filter before the cumulative function can be applied to the expression.


View Name: <i>RepBroker Cumulative Sales</i>				
View Filter				
Recursive Top Count 5				
<b>RepBroker</b>	<b>Product Category</b>	<b>Actual Sales</b> Jan 2014 to Sep 2014	<b>Percent of Total</b>	<b>Cumulative % of Total</b>
<a href="#">Mary Lopez</a>	<a href="#">Fresh Vegetables</a>	\$27,251,065	4.87%	6.37%
	<b>Mary Lopez Total</b>	<b>\$27,251,065</b>		
<a href="#">Eleanor Toman</a>	<a href="#">Fresh Fruit</a>	\$32,031,428	5.73%	13.86%
	<a href="#">Frozen Prepared Dinners</a>	\$44,281,161	7.92%	24.21%
	<a href="#">Fresh Vegetables</a>	\$47,904,721	8.57%	35.41%
	<a href="#">Canned Fruit</a>	\$276,298,202	49.42%	100.00%
	<b>Eleanor Toman Total</b>	<b>\$400,515,511</b>		
<b>Grand Total</b>		<b>\$427,766,577</b>		

## Why is a Filter Property Disabled?

This can happen when:

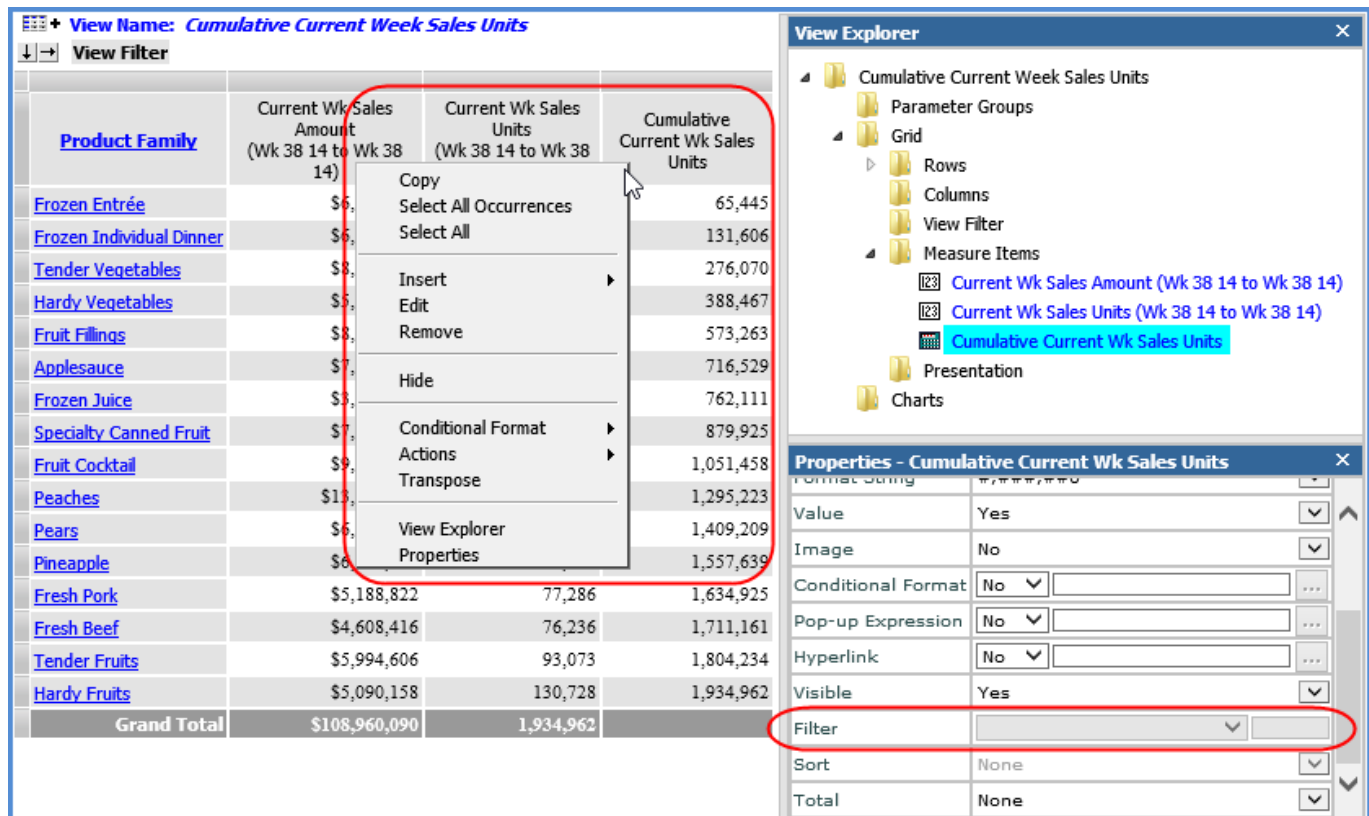
- [You're a casual user.](#)
- [You're working with a cumulative calculated measure item.](#)
- [You're working with measure items and there are levels on the same axis as level items.](#)
- You are trying to filter Grand Totals that are on the axis opposite from the measure item axis. See [Guidelines for Sorting and Filtering on Totals.](#)

### Casual User

The grid pop-up menu for casual users does not have a Filter option on it. Casual users are only able to edit existing filters by clicking the filter icon  next to the filtered level, attribute relationship, or measure item.

### Cumulative Calculated Measure Item

Filtering is not permitted on calculated measure items that use cumulative functions in their expression. Those functions are the Cumulative Total, Cumulative Percent of Total, ABC Cumulative, and ABC Cumulative Percent of Total functions. The Filter option will not display on the grid pop-up menu of a calculated measure item that uses a cumulative function. Also, the Filter properties will always be disabled in the Properties window for those measure items.



The screenshot displays a data grid titled "View Name: Cumulative Current Week Sales Units". The grid has four columns: "Product Family", "Current Wk Sales Amount (Wk 38 14 to Wk 38 14)", "Current Wk Sales Units (Wk 38 14 to Wk 38 14)", and "Cumulative Current Wk Sales Units". A context menu is open over the "Cumulative Current Wk Sales Units" column, listing options like Copy, Select All Occurrences, Select All, Insert, Edit, Remove, Hide, Conditional Format, Actions, Transpose, View Explorer, and Properties. The "Filter" option is absent. To the right, the "View Explorer" shows the hierarchy of the measure item, and the "Properties - Cumulative Current Wk Sales Units" window shows the "Filter" property is disabled (indicated by a greyed-out dropdown).

Product Family	Current Wk Sales Amount (Wk 38 14 to Wk 38 14)	Current Wk Sales Units (Wk 38 14 to Wk 38 14)	Cumulative Current Wk Sales Units
Frozen Entrée	\$6,445		65,445
Frozen Individual Dinner	\$6,131,606		131,606
Tender Vegetables	\$8,276,070		276,070
Hardy Vegetables	\$5,388,467		388,467
Fruit Fillings	\$8,573,263		573,263
Applesauce	\$7,716,529		716,529
Frozen Juice	\$3,762,111		762,111
Specialty Canned Fruit	\$7,879,925		879,925
Fruit Cocktail	\$9,1,051,458		1,051,458
Peaches	\$1,1,295,223		1,295,223
Pears	\$6,1,409,209		1,409,209
Pineapple	\$6,1,557,639		1,557,639
Fresh Pork	\$5,188,822	77,286	1,634,925
Fresh Beef	\$4,608,416	76,236	1,711,161
Tender Fruits	\$5,994,606	93,073	1,804,234
Hardy Fruits	\$5,090,158	130,728	1,934,962
<b>Grand Total</b>	<b>\$108,960,090</b>	<b>1,934,962</b>	

## Levels on Same Axis as Measure Items

If there are levels on the same axis as the measure items, then Filter will be disabled in measure item Properties windows. You must first filter the measure item via the grid in relation to a particular level member on the measure item axis.

In this view, the measure items are on the columns axis and there is an ABC Classification Code level on columns. The Filter property is disabled in all measure item Properties windows. You can filter by right-clicking an instance of a measure item in the grid (for A, B, or C code) and using the Filter option on the pop-up menu.

After setting up the initial filter that way, the Filter properties will be enabled in the Properties window. You can then edit or remove the filter from the grid or Properties window.

The screenshot displays a software interface with three main components:

- View Filter:** Shows a grid with columns for 'ABC Classification Code' (A, B), 'ABC Long Description' (A, B), and 'Product Family'. The grid contains data for various product families like 'Frozen Entrée', 'Frozen Individual Dinner', etc., with columns for 'Current Wk Sales Amount', 'Current Wk Sales Units', and 'Cumulative Current Wk Sales Units'.
- View Explorer:** A tree view on the right showing the hierarchy of the view, including 'Grid', 'Rows', 'Columns', 'View Filter', and 'Measure Items'. The 'Cumulative Current Wk Sales Units' measure item is highlighted.
- Properties - Cumulative Current Wk Sales Units:** A properties window for the selected measure item. It shows various settings like 'Name', 'Caption Expression', 'Type', 'Expression', 'Format String', 'Value', 'Image', 'Conditional Format', 'Pop-up Expression', 'Hyperlink', 'Visible', 'Filter', 'Sort', and 'Total'. The 'Filter' property is highlighted with a red box.

A red box highlights a context menu over the grid, with the 'Filter' option selected. Another red box highlights the 'Filter' property in the Properties window.

### Axis Filter

Axis filters are a means of creating complex filters that contain more than one condition in their filter expression, joined by “and” or “or” statements. They are well suited for analysis that takes into account multiple business conditions. Use them when you need to set up filters involving multiple measure items or both measure items and attribute relationships. For example, you have a business need to see all rows of data for products that meet a certain sales goal but you also want to factor in another performance indicator such as a profit margin, rate of return, or average selling price. You use an axis filter with multiple conditions to zero in on the products of interest to you.

You can set up axis filters on the rows or columns axis. For example, use an axis filter to return all rows that fit the criteria of two different measure items -- such as all rows where Sales Units are greater than 1,000 and Profit Margin is less than 20%.

### Display Column

Display columns provide descriptive information about objects displayed in Stratum.Viewer windows such as the View List and [Select User List Filter windows](#). The display columns available vary by window and object type. Examples of display columns are the date a user list was created, an attribute relationship for a level member, and the owner of a view. You can determine which display columns show while using the [Select Members](#), [Advanced Select Members](#), User List, Member List, and Conditional Format windows.

### View Filter

The View Filter acts as a filter on all visible levels and measure items in a view so that only data that meets View Filter criteria displays. A View Filter is applied no matter what levels are displayed in the view. See also [Using a View Filter vs. a Level Filter](#).