

## Introduction

One of the benefits of using an OLAP data source in report studio is the ability for users to explore the data by drilling up or down on a column or row that is based on a hierarchy. However by default when a user drills down on a hierarchy by clicking a member, the rows are replaced by the children of that member. By making a simple change the parent category will remain in the column giving the children context.

## Default functionality

Clicking on Camping Equipment below changes the report view to its children

	Revenue	Gross profit	Gross margin
<u>Camping Equipment</u>	\$89,713,990.92	\$21,674,664.30	29.28%
<u>Golf Equipment</u>	\$25,905,465.58	\$11,681,524.78	46.39%
<u>Mountaineering Equipment</u>	\$20,891,350.60	\$6,976,917.56	37.43%
<u>Outdoor Protection</u>	\$3,171,114.92	\$1,788,162.84	55.96%
<u>Personal Accessories</u>	\$31,894,465.86	\$11,712,542.78	35.27%

We can see that the children of camping equipment are now visible with the correct measures.

	Revenue	Gross profit	Gross margin
<u>Cooking Gear</u>	\$5,401,132.08	\$1,656,981.16	28.81%
<u>Sleeping Bags</u>	\$11,688,944.32	\$3,429,721.96	27.98%
<u>Packs</u>	\$14,627,996.26	\$4,420,405.24	29.36%
<u>Tents</u>	\$47,456,718.10	\$8,831,773.16	23.83%
<u>Lanterns</u>	\$10,539,200.16	\$3,335,782.78	33.31%

However, we no longer see the member that drilled on. So we lose a visible indicator to the parent member and the roll up to it.

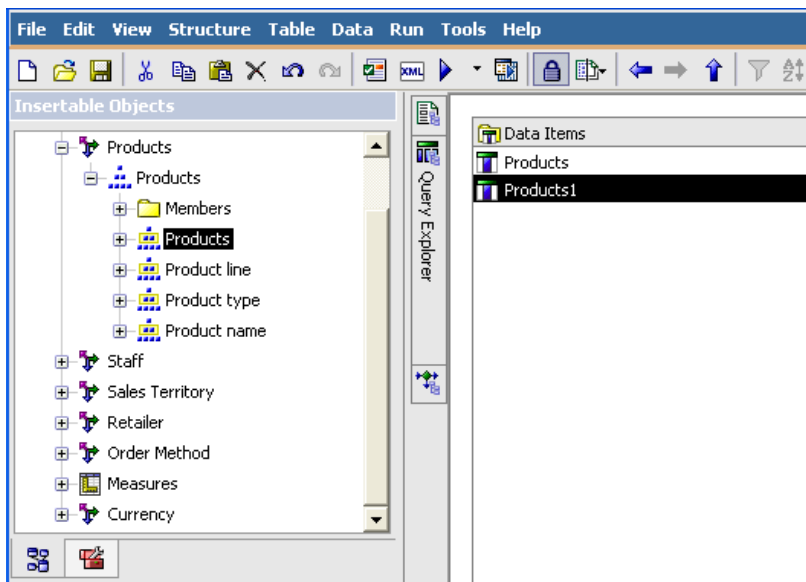
## Desired functionality

Users often find it beneficial to maintain the member visible when drilling down. This provides context and a roll up of the measures as seen below.

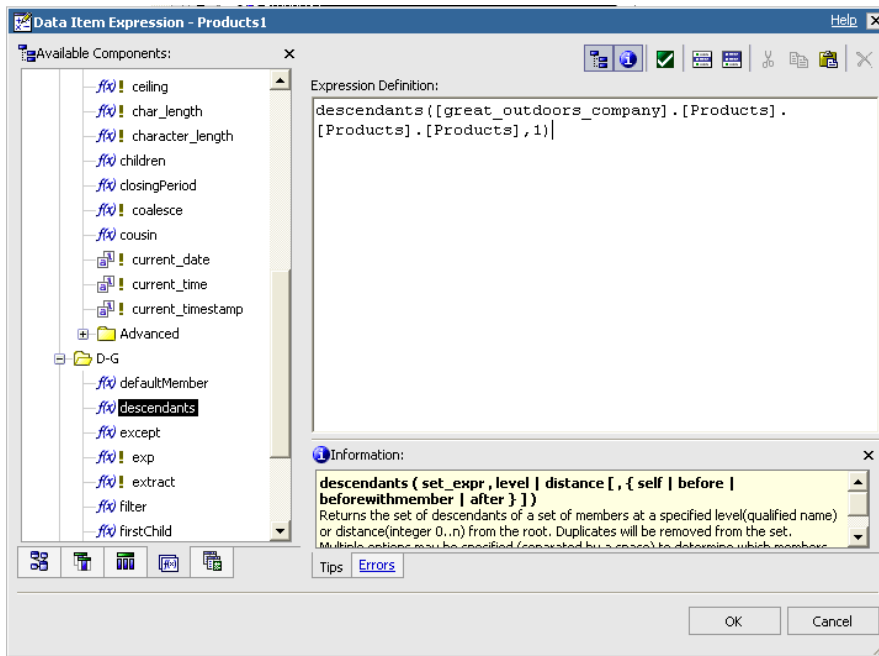
	Revenue	Gross profit	Gross margin
<b>Camping Equipment</b>	\$89,713,990.92	\$21,674,664.30	29.28%
<u>Cooking Gear</u>	\$5,401,132.08	\$1,656,981.16	28.81%
<u>Sleeping Bags</u>	\$11,688,944.32	\$3,429,721.96	27.98%
<u>Packs</u>	\$14,627,996.26	\$4,420,405.24	29.36%
<u>Tents</u>	\$47,456,718.10	\$8,831,773.16	23.83%
<u>Lanterns</u>	\$10,539,200.16	\$3,335,782.78	33.31%

## Adding the functionality

We can accomplish this by bringing in the same hierarchy, in this case products, twice at two distinct levels. In the query view drag in the products level from the products hierarchy twice:

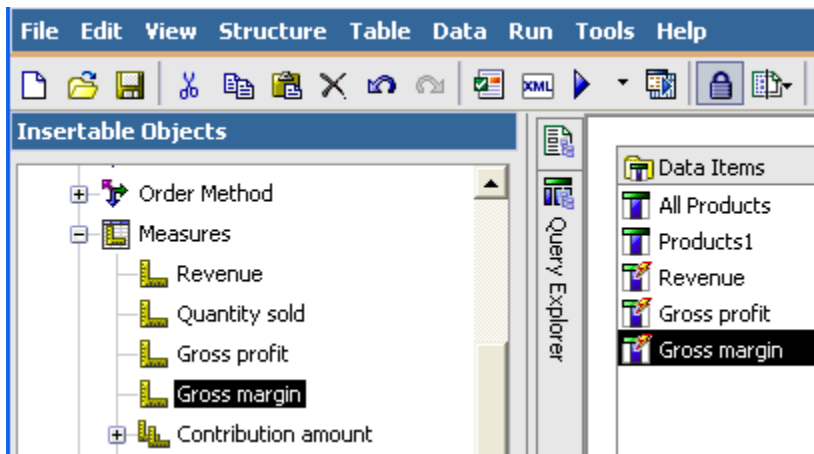


Double click on Products1 one to open the expression editor.



In the expression editor select descendants from the common functions and apply it to the products level as:  
**descendants([great\_outdoors\_company].[Products].[Products].[Products],1)**

This will display the immediate descendants or children of the current member. You can also use the children function.  
 In the query window, rename Products to “All Products” and add the desired measures:



Create the report by:

1. In report Studio drag a crosstab onto the body of the report.
2. Drag All Products to the rows, then place Products1 directly beneath it
3. Add the measures

The report should like this:

	<#Revenue#>	<#Gross profit#>	<#Gross margin#>
<#All Products#>	<#1234#>	<#1234#>	<#1234#>
<#Products1#>	<#1234#>	<#1234#>	<#1234#>

Finally, we add some formatting to distinguish the different levels. On the cross tab click and highlight Products1 and modify the indentation property to 10px.

Click and highlight All Products and set the font to bold. Run the report.

## Output

When we run the report we now see the individual members along with their parent member on the top row.

	Revenue	Gross profit	Gross margin
<b>Products</b>	\$171,576,387.88	\$53,833,812.26	37.36%
Camping Equipment	\$89,713,990.92	\$21,674,664.30	29.28%
Golf Equipment	\$25,905,465.58	\$11,681,524.78	46.39%
Mountaineering Equipment	\$20,891,350.60	\$6,976,917.56	37.43%
Outdoor Protection	\$3,171,114.92	\$1,788,162.84	55.96%
Personal Accessories	\$31,894,465.86	\$11,712,542.78	35.27%

As we drill into the children members the top row is replaced by the member we clicked on and its children are displayed below it.

	<u>Revenue</u>	<u>Gross profit</u>	<u>Gross margin</u>
<b>Camping Equipment</b>	\$89,713,990.92	\$21,674,664.30	29.28%
<u>Cooking Gear</u>	\$5,401,132.08	\$1,656,981.16	28.81%
<u>Sleeping Bags</u>	\$11,688,944.32	\$3,429,721.96	27.98%
<u>Packs</u>	\$14,627,996.26	\$4,420,405.24	29.36%
<u>Tents</u>	\$47,456,718.10	\$8,831,773.16	23.83%
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