Manual for Report Module Users

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1 Overview of the Report Module

Report module is the application for the reports viewing. It is only possible to view reports and add new pages to them, it is impossible to add or remove the report.

After launch of the application and successful log on you will see the main window of the report module:



You can see 2 tables to the left: "List" and "Settings". You can see all available reports in the tree view on the "List" tab. On the "Settings" tab you can find data about your PC and about the user under which you're logged on to Windows.

1.1 Language Selection

In order to change the language of the interface you need to enter the "Tools / Language" menu item and select the necessary language:



1.2 Themes

Theme (or skin) defines the outer view of the report module. You need to enter the "Tools/Look and Feel" menu item and select any theme of more than 10 possible themes:



2 Viewing Reports

2.1 How to open a report?

You can open a report in one of the following ways:

Business Analysis Tool (Report Module) - http://uranus:88/	_ = ×
<u>A</u> pplication <u>M</u> odule <u>L</u> ist Mail <u>B</u> roadcast T <u>o</u> ols <u>H</u> elp	
🕴 List 🖓 🛃 🤅 Mail Broadcast 💿 🧭 🞝 🥨 🎼 🌮 🆓	
Settings Folder/Report AW (2005) AW (2008) AW (2008) AW1 (Version 2 from 12/28/2013) AW1 (Version 3 from 12/28/2013) AW2 (Version 1 from 12/19/2013) Links for managers Image: Comparison of the man	Notes
Mail Broadcast 🔺 Status Type	Modified By
× ♥ ([Status] <> 'Deleted') < < < > > > < < 2. <	

In order to open a report you have to do one of the following actions:

- 1. Double click on the report with the left mouse button;
- 2. Make the report active in the list and press Enter.

3. Press the button «Generate» in the bottom part of the screen or in the toolbar, or in the context menu opened with the help of right mouse button click.

🟮 Business Analysis Tool (Report Module) - http://uranus:88/ 🛛 🗖 🛪									
<u>Application M</u> odule <u>R</u> eports Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols <u>H</u> elp									
🕴 😋 💬 💾 🔢 🔣 🕼 🕼 🕼 🕼 🕼 😨 🄢 Description 🛛 😋 🍇 🖓 😋 🦜 100% 🕞 🏥 Table And Chart 🛛 🖓 🖏 🖏									
AW1 (Version 1 from 10/31/2013)	×								
Settings Dimensions 🔯 🕅 Columns 🚝 - + Date/Date,Calendar - 🔞 ×	١١٢								
	-111								
Rows a reproduct/Product Categories - () x	-111								
List 🕑 🔯 Delivery Date Rows / Columns Filter Sorting									
Image: Context Product/Prod Image: CY 2005 Image: CY 2007 Image: CY 2008									
Reports Resures Clothing 34,376.34\$ 485,587.15\$ 871,864.19\$ 386,013.16\$									
: D C Exchange Rates									
Finance Highlight	51								
Chart Properties									
20,000,000.00									
Bales Summary									
Reseller Sales Amount Argument:									
legend □labels $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$									
Sets rotate by 90°									
🕀 🖻 Sets Settings 🍋 Accessories 📎 Bikes 🍾 Clothing 🍾 Components									
Search	J								
Login: mikle Server: http://uranus:88/ Rows: 4 Columns: 4									

When the report is opened, you will see an additional tab "Reports" added to the set of tabs:

All generated reports will be placed on this tab. Note: you can generate several reports simultaneously. All generated reports will be placed on separate tabs:



You can close the report using the cross icon in the upper right corner.

2.2 Report Pages

Each report consists of several pages. To understand better what is the report page, let us recall how Excel document looks like: each page has a table with data. Pages are displayed as tabs in the bottom part of the window:



Each page can have one of the following types:

- Pages created by administrator (red color)
- Pages created by you (blue color)
- Pages created by you and shared with other users (blue color with green border)
- Pages created by other users which were shared with you (green color)

\land dashboard 1 🔡 Ta	ole 4 📗 🎎 Table 8	🔹 Table 1	Table 1	🍢 TreeMap 2
------------------------	-------------------	-----------	---------	-------------

You can view administrator's pages and shared pages, and change their structure, but you have no right to save them. However, you can copy those pages and save yours.

You can add your own pages to any report. You can save all changes made on your own pages. You are the only one who can access your own pages (provided they are not shared by you), and no more users (even administrator) can view, modify or delete them. Next section of this document will show you how to create and delete pages.

You can also filter the viewed pages to see yours, administrator's or shared, by pressing one of the buttons:

8	Business Ar	nalysis Tool (Re	eport Mod	lule) - htt	p://uran	us:88/								-	x
1	<u>Application</u>	<u>M</u> odule	<u>R</u> eports	Report	<u>P</u> age	<u>V</u> iew	<u>D</u> ata	<u>T</u> able	T <u>o</u> ols	<u>H</u> elp					
:	G O B		66	😭 😰	۵ 🕹	N XK	Descript	tion C	ं 🥸 🏕	오 💸 🛛 100%	🔹 🌐 🛛 Table	!	🔽 🔁 🔁 🗊		
	***	AW1 (/ersion 2 fr	om 12/28/2	2013)										×

3 Working with reports

3.1 Basic Navigation on the Page

To demonstrate the page navigation let's open the report based on a test database of the retail sales:



In the opened window you can see the following blocks:

- Dimensions
- Measures
- Sets
- Context
- Measures

We can see the product families on rows and quarters of the year on columns. Inside the table the total amount of sales is displayed. The items which are in rows and columns (products, time, etc) are called dimensions. The values inside the table are called measures.



The section "Dimension" contains dimensions, hierarchies and levels:

The hierarchies can be of several types: regular, attribute and parent-child:



You can see levels under the hierarchies:



You can see the levels of a hierarchy by pressing "+":



With the help of "+" and "-" buttons you can expand the data to the desired level of details in the table as well:

Product/Product		+ CY 2005	- CY 2006	CY 2006	+ CY 2	
Ca	tegories			+ H1 CY 2006	+ H2 CY 2006	
+	Ancossories	20,235.36\$	92,735.35\$	16,579.48\$	76,155.87\$	296
Ξ	Bikes	7,395,348.63\$	19,956,014.67\$	7,623,185.44\$	12,332,829.23\$	25,551
	🕂 Mountain Bikes	4,545,336.51\$	9,190,838.09\$	4,023,621.76\$	5,167,216.33\$	8,854
l S	🕂 Road Bikes	2,850,012.12\$	10,765,176.58\$	3,599,563.68\$	7,165,612.90\$	11,294
8	🕂 Touring Bikes					5,403
+	Clothing	34,376.34\$	485,587.15\$	31,951.20\$	453,635.96\$	87:
+	Components	615,474.98\$	3,610,092.47\$	551,290.34\$	3,058,802.14\$	5,482
			·			

The level of details can be set in another way. You can see two shelves in the top part of the page: "Rows" and "Columns". There are controls on them. Those controls allow us to know which data are displayed in the table. With the help of the dropdown you can set the necessary level of details:



If you select some level of details, e.g. "Subcategory",

Columns	E	– + Date/Date.Calendar - 😡 ×
Rows	100	Product/Product Categories - 🖸 ×

you'll be able to made detailing greater or smaller with the help of the buttons + and - (to the left of the control).

3.2 Member Selection

3.2.1 Manual Member Selection

There is a possibility to set arbitrary selection of the items not only by levels, but also with the help of this button:

Columns	999	- + Date/Date.Calendar - C
Rows	100	- + Product/Product Categories - 🖸 ×

If you press it, you will get the member selector dialog. In this window there will be selected all those items which are displayed in the table:

Member Selector: Product/Product Categories	-	x
Selection Filter Sorting Options		
□ 🔁 🚺 (All)		
Category		
🗄 🚥 🗹 Subcategory		
Show Search >>		
ОК	Cancel	

You can see the whole level "Subcategory" selected. You can select several levels at once, for example:

Member Selector: Product/Product Categories	x
Selection Filter Sorting Options	
□ 🔁 🚺 (All)	
🖃 🞍 🔽 Category	
😑 🚥 🔽 Subcategory	
🔺 🔽 Product	

After you press «OK» you will get all three levels displayed in the rows of the table:

Prod	uct/Product Categories	+ CY 2005	+ CY 2006	+ CY 2007	+ CY 2008
- A	ccessories	20,235.36\$	92,735.35\$	296,532.88\$	161,794.33\$
E	Bike Racks			118,428.47\$	79,307.69\$
В	Hitch Rack - 4-Bike			118,428.47\$	79,307.69\$
E	Bottles and Cages			4,481.33\$	2,995.27\$
В	Water Bottle - 30 oz.			4,481.33\$	2,995.27\$
E	Cleaners			6,733.09\$	4,455.28\$
C	Bike Wash - Dissolver			6,733.09\$	4,455.28\$
E	Helmets	20,235.36\$	74,281.39\$	113,443.66\$	50,752.52\$
	Sport-100 Helmet, Black	6,681.73\$	5,416.35\$		
	Sport-100 Helmet, Black		19,449.16\$	12,417.67\$	
	Sport-100 Helmet, Black			25,988.56\$	17,961.90\$
	Sport-100 Helmet, Blue	7,114.14\$	6,217.44\$		
	Sport-100 Helmet, Blue		20,228.81\$	13,566.45\$	
	Sport-100 Helmet, Blue			26,107.56\$	17,818.46\$
ets	Sport-100 Helmet, Red	6,439.49\$	4,945.69\$		
Ē	Sport-100 Helmet, Red		18,023.94\$	11,007.42\$	
L L	Sport-100 Helmet, Red			24,356.00\$	14,972.16\$
E	Hydration Packs			41,531.96\$	23,986.79\$
H	Hydration Pack - 70 oz.			41,531.96\$	23,986.79\$
C	1 lu-				

Member selector can show the selected items in two ways: using levels and using elements. In order to view the selection using elements you have to select "Show Elements" in the context menu:

Member Selector: Pr	oduct/Product Categories	x
Selection Filter Sort	ting Options	
🖃 📜 (All)		
Categor: Categor: Sub Sub	Show Elements	
	Unselect Subtree	
	Find (Ctrl+F)	

After this you will see the following:



The list of categories is displayed by elements. Please, pay attention to the icons near the elements and sets.

In the member selector window you can set the selection with combining levels and elements:

😂 Member Selector: Product/Product Categories 🗖	x
Selection Filter Sorting Options	
Ξ Σ All Products	٦
🕀 🎱 🗌 Accessories	
🖃 🎱 🔽 Bikes	
🗄 🚥 🔽 Subcategory 🔫 — Level	
🖃 🎱 🔽 Clothing	
🕀 🍑 🔄 Bib-Shorts	
🗄 🍚 🗹 Caps 🚽	
🕀 🥥 🔤 Gloves	
🗄 🔍 🗸 Jerseys	
Shorts Members	
Socks	
H Ights	
e vests	
Components	
Show Search >>	
OK Cancel	

In order to make the selection as shown above you need to use the context menu which can be different depending on where you pressed the right mouse button: on the element or on the level. Context menu for the level looks like this:



Context menu for the element looks like this:

Member Selector:	Product/Product Categories		x
Selection Filter S	orting Options		
 Σ All Products Φ All Accessories 	3		
Bikes Bikes S	Collapse Siblings to Set Expand Subtree to Elements Select Siblings Select Subtree Unselect Siblings Unselect Subtree Find (Ctrl+F)		

All actions in this menu are obvious – you can try any of them on your own. As a result of the selection shown on the picture above you will get this report:

Pr	odu	uct/Product Categ	+ CY 2005	+ CY 2006	+ CY 2007	+ CY 2008
Ξ)All	Products	8,065,435.31\$	24,144,429.65\$	32,202,669.43\$	16,038,062.60\$
	Ξ	Bikes	7,395,348.63\$	19,956,014.67\$	25,551,775.07\$	13,399,243.18\$
		🕂 Mountain Bikes	4,545,336.51\$	9,190,838.09\$	8,854,263.03\$	3,902,246.74\$
	ŝ	🕂 Road Bikes	2,850,012.12\$	10,765,176.58\$	11,294,381.37\$	4,448,636.90\$
s	8	🕂 Touring Bikes			5,403,130.67\$	5,048,359.55\$
ť	Ξ	Clothing	34,376.34\$	485,587.15\$	871,864.19\$	386,013.16\$
b	:	🕂 Caps	2,686.87\$	9,387.61\$	13,800.95\$	5,665.91\$
Ч	÷	+ Jerseys	28,255.57\$	110,243.77\$	290,004.73\$	150,804.63\$
A	ŏ	+ Socks	3,433.89\$	3,139.50\$	10,793.76\$	7,271.66\$

As we can see, the table has all elements of the level "Subcategory" under the "Bikes" element, and three elements selected separately under "Clothing" element.

3.2.2 Searching

In the member selector form you can search for necessary members:

Member Select	tor: Product/Product Categories		x
Selection Filter	Sorting Options		
You are currently in	offline mode. Disable offline mode		
🖂 🌑 📃 All Product	S		^
🗆 🎱 📃 Access	ories		
🗆 🍚 🔽 Hel	mets		
9 🗸	Sport-100 Helmet, Black		
9 🗸	Sport-100 Helmet, Black		
i 🖉 🗸	Sport-100 Helmet, Black		≡
i 🖉 🗸	Sport-100 Helmet, Blue		
i 🖉 🗸	Sport-100 Helmet, Blue		
i 🖉 🗸	Sport-100 Helmet, Blue		
i 🖉 🗸	Sport-100 Helmet, Red		
i 🖉 🗸	Sport-100 Helmet, Red		
i 🖉 🗸	Sport-100 Helmet, Red		
🗆 🍚 📃 Clothin	g		
🗆 🍚 🔽 Glo	ves		
i 🖉 🗸	Full-Finger Gloves, L		
	Full-Finder Cloves M		-
Search:	helmet;gloves	÷)	<
Search Level:		+ >	<
Search Mode:	Search by name (translated)		-
	Search by name (translated)	-	
	Search by key		
	Search by name		
	Search by property 'Category'		
Hide Search <<	Search by property 'Class'		
	Search by property 'Days to Manufacture'		
	bear an by property bays to Handradeare		۲.
	OK	cel	

The button "Show Search / Hide Search" below opens or closes the search panel. On the search panel you can set the phrase, the level in the hierarchy where search will be performed (if not specified – the searching will be done on all levels) and the search mode:

- Search by name: your phrase will be searched among member names;
- Search by key: your phrase will be searched among member keys;
- Search by property 'x': your phrase will be searched among values of the property 'x' of the members.

You can specify several words using ";". Each word can be started or ended with "*". For example, type touring* if you want to find all goods which start from touring. If you need to search for symbols "*" or ";" you have to specify \ before them, like this: «*» μ «\;». In order to search for "\" you should specify "\\".

The option "Approximate searching" makes so that the application will search the words approximately. Thus, searching for «helmet;gloves» with checkbox "Approximate searching" set to "ON" is the same as searching for "*helmet*;*gloves*" without it.

After successful searching of elements, the member selector turns into "offline mode". It means that the member selector will show ONLY the elements which are the search result plus their parents. You can unplug the "offline mode" pressing this button:

🧿 Member Selec	ctor: Product/Product Categories		x
Selection Filter	Sorting Options		
You are currently in	n offline mode. Disable offline mode		
i i i i i i i i i i i i i i i i i i i	LL Touring Handlebars	-	٦
🗆 🍚 📃 Pe	edals		
i 🔍 🗸	Touring Pedal		
🗆 🍚 🗔 Sa	addles		
i i i i i i i i i i i i i i i i i i i	HL Touring Seat/Saddle		
	LL Touring Seat/Saddle		
i 🔍 🗸	ML Touring Seat/Saddle		
🗆 🍚 🗹 To	ouring Frames		
	HL Touring Frame - Blue, 46		
	HL Touring Frame - Blue, 50		
	HL Touring Frame - Blue, 54		
	HL Touring Frame - Blue, 60		
	HL Touring Frame - Yellow, 46		
	HL Touring Frame - Yellow, 50		
	HL Touring Frame - Yellow, 54		
	HI Touring Frame - Vellow 60		-
Search:	touring*	→ X	
Search Level:		* X	
Search Mode:	Search by name (translated)	-	
	Approximate searching		
	Search Search Add		
Hide Search <-	<		
	OK Can	cel	

In the offline mode you can show only those elements which you need. Using menu items "Refresh Children" and "Refresh Subtree" you can display all children of the selected element or all its subtree:

You are currently in offline	e mode. Disab	le offline mode
ill Tou	iring Handlebars	^
🕀 🎱 🔤 Pedala		
	Collapse Siblings to Set	
🗆 🥥 🔄 Sad	Collapse Subtree to Set	
	Select Siblings	
۵ 🗸	Select Subtree	
🗆 🎱 🗹 Tou	Unselect Siblings	
	Unselect Subtree	
	Refresh Children	
	Refresh Subtree	
	Find (Ctrl+F)	
🍛 🔽 Ης του	uring Frame - Yellow, 54	-
	iring Frame - Vallow 60	
u are currently in offline	mode. Disi	able offline mode
u are currently in offline	mode. Disa	able offline mode
u are currently in offline	mode. Disi	able offline mode
u are currently in offline	ing Erame - Vellow 60 mode. Disi ing Handlebars intain Pedal	able offline mode
u are currently in offline	ing Erame - Vellow 60 mode. Disi ing Handlebars Intain Pedal d Pedal	able offline mode
u are currently in offline	ing Erame - Vellow 60 mode. Disi ing Handlebars Intain Pedal d Pedal ntain Pedal	able offline mode
u are currently in offline ULL Tour Pedals HL Mour HL Roar LL Mour LL Mour LL Roar	ing Erame - Vellow 60 mode. Dis ing Handlebars Intain Pedal d Pedal ntain Pedal d Pedal	able offline mode
u are currently in offline Pedals HL Mour HL Roar LL Roar LL Roar ML Mour ML Mour	ing Erame - Vellow 60 mode. Disi ing Handlebars Intain Pedal d Pedal ntain Pedal d Pedal untain Pedal	able offline mode
u are currently in offline ULL Tour Pedals ULL Mour ULL Mour ULL Mour ULL Mour ULL Mour ULL Road	ing Erame - Vellow 60 mode. Disi ing Handlebars Intain Pedal d Pedal intain Pedal d Pedal intain Pedal d Pedal	able offline mode
u are currently in offline Pedals HL Mour HL Roar LL Mour LL Roar LL Roar ML Roar ML Roar ML Roar ML Roar ML Roar	ing Erame - Vellow 60 mode. Disi ing Handlebars Intain Pedal d Pedal intain Pedal d Pedal intain Pedal g Pedal g Pedal	able offline mode
u are currently in offline U LL Tour Pedals HL Mour LL Road LL Road LL Road ML Road ML Road ML Road Saddles	ing Erame - Vellow 60 mode. Disi ing Handlebars Intain Pedal d Pedal Intain Pedal d Pedal untain Pedal d Pedal g Pedal g Pedal	able offline mode
u are currently in offline U are currently in offline Pedals U HL Tour Pedals HL Mou U HL Roa U HL Roa U HL Roa HL Roa ML Mou ML Roa ML Roa ML Roa ML Roa ML Roa ML Roa	ing Erame - Vellow 60 mode. Dis ing Handlebars Intain Pedal d Pedal Intain Pedal d Pedal untain Pedal d Pedal g Pedal g Pedal	able offline mode
u are currently in offline U IL Tour Pedals U IL Tour Pedals IL Mour LL Mour LL Roar LL Roar ML Roar	mode. Disi mode. Disi ing Handlebars Intain Pedal d Pedal Intain Pedal d Pedal Intain Pedal d Pedal g Pedal g Pedal g Pedal g Seat/Saddle ing Seat/Saddle	able offline mode
	You are currently in offline VLL Tou VLL Tou V Sad V V V V V V V V V V V V V	You are currently in offline mode. Disab Disab L Touring Handlebars L Touring Handlebars Collapse Siblings to Set Collapse Subtree to Set Select Siblings Select Subtree Unselect Siblings Unselect Subtree Refresh Children Refresh Subtree Find (Ctrl+F) HL Touring Frame - Yellow, 54

3.2.3 Filtering of Selected Elements

You can filter those elements which you've selected on the tab "Selection". There is a second tab "Filter" which is used for this.

Let us make an example: let us choose all mountain bikes which are in the top 10 by the sum of sales in the first quarter of 2003. In order to select them, please do the following.

Choose all bicycles:

Selection Filter Sorting Options
Ξ Σ All Products
🕀 🎱 🦳 Accessories
🕀 🍛 🔤 Bikes
🖃 🍛 📃 Clothing
🖃 🚥 📃 Subcategory
🚁 🔽 Product
🕀 🎱 📃 Components

Create a new filtering group on the tab "Filter":



Fill in the data in order to select top 10 as shown on the following picture:

🎯 Member S	elector: Product/Product Categories 🛛 🗖 🗙
Selection	ilter Sorting Options
Context o	lependency on previous hierarchies
Groups join typ	De la
⊖ And	🔿 Or 💦 Except 🕜 After 🛛 🚑 🚔 🞇
Group 1	
Group name:	Group 1
Conditions joi	ntype
() And	🔿 Or 💿 Except 💿 After 🏹 🚔 🙀 🔛
Top 10 sales	
Name:	Top 10 sales
Level:	All levels 🔹
Type:	By measure value 🔹
Condition:	x topmost members (TopCount) -
Measure:	Reseller Sales Amount 🔹
X:	10 ‡
	Ignore empty values
Override Cont	ext
Override C	Context for Hierarchy
	OK Cancel

In order to make so that the "Reseller Sales Amount" is to be computed using the 1st quarter of 2003 (but not all the time) you have to override context: press the button "Override Context for Hierarchy..."

Top 10 sales	
Name:	Top 10 sales
Level:	All levels 🔹
Туре:	By measure value 🔹
Condition:	x topmost members (TopCount) -
Measure:	Reseller Sales Amount
X:	10 C
Override Cont	ext
Override C	ontext for Hierarchy.

Choose the time hierarchy:

🏮 Hierarchy	x
Please, choose a hierarchy: * Date/Date.Calendar	-
OK Cancel	

Choose the 1st quarter of 2003:

Θ	ک) 🗌 All Periods
	🕀 🍑 📃 CY 2001
	🕀 🍑 📃 CY 2002
	🖃 🍑 📃 CY 2003
	🖃 🅥 🗌 H1 CY 2003
	🕀 🍚 🔽 Q1 CY 2003
	🕀 🌒 🛄 🛛 🕀 🕀 🕀 🕀
	🕀 🅥 🗔 H2 CY 2003
	🕀 🍑 📃 CY 2004

After pressing «OK» you will get this:

Top 10 sales]		
Name:	Top 10 sales		
Level:	Product -		
Type:	By measure value 👻		
Condition:	x topmost members (TopCount) -		
Measure:	Reseller Sales Amount		
X:	10 ‡		
	Ignore empty values		
Override Cont	ext		
Date/Date.Ca	lendar: All Periods.CY 2003.H1 CY 2003.Q1 CY 2003 🛛 🗔 🗴		
Override Context for Hierarchy			

Add one more filtering condition:

Selection	Filter So	rting Options				
Context	Context dependency on previous hierarchies					
Groups join ty	pe					
() And	🔿 Or	🔿 Except	🔿 After			
Group 1						
Group name:	Gro	oup 1				
Conditions jo	intype					
() And	🔘 Or) Except	🔿 After			
Top 10 sales	s					

In order to filter only mountain bikes fill in the following form:

Group 1	
Group name:	Group 1
Conditions join	ntype
🖲 And	🔿 Or 🔿 Except 🔿 After 🛛 🚑 🚔 🙀 🔀
Top 10 sales	In mountain
Name:	In mountain
Level:	All levels 🔹
Type:	By property 🔹
Property:	Name (translated)
Comparison:	as text 🔹
Condition:	members with values satisfying mask x 🔹
x	mountain*

All filtering conditions are set. In order to make so that both conditions are applied to selected members, you have to select the "And" join type:

Selection	Filter So	rting Options			
Context dependency on previous hierarchies					
Groups join	type				
() And	🔘 Or	🔘 Except	🔿 After		
Group 1					
Group nam	e: Gro	oup 1			
Conditions	jointype				
) And	© Or	C Except	© After		
Top 10 sa	ales In mou	untain			

If you apply this filter, you will see the expected result:

	🕂 Q1 CY 2003	+ Q2 CY 2003	🕂 Q3 CY 2
Mountain-200 Silver, 38	\$241,113.25	\$303,255.84	
Mountain-200 Silver, 42	\$221,750.45	\$231,170.43	
Mountain-200 Silver, 46	\$223,713.32	\$230,384.95	
Mountain-200 Black, 38	\$308,594.18	\$372,526.05	
Mountain-200 Black, 42	\$272,227.61	\$313,512.02	
Mountain-200 Black, 46	\$200,401.80	\$221,302.60	

In the first condition you applied filtering by measure. In the second – using a property. When you're filtering by measure value, you can select one of the following conditions:

Condition:	x topmost members (TopCount) -
Measure:	x topmost members (TopCount)
	x smallest members (BottomCount)
X:	topmost members whose sum >= x (TopSum)
	smallest members whose sum >= x (BottomSum)
	topmost members whose sum >= x% of the total (TopPercent)
Override Cont	smallest members whose sum>= x% of the total (BottomPercent)
Date/Date.Ca	members with value = x
Date/Date.Ca	members with value <> x
	members with value > x
Override C	members with value >= x
Overnue C	members with value < x
	members with value <= x
	members with $x \le value \le y$
	members with non-empty value

The list of available conditions:

- Topmost members whose sum >= X% of the total;
- Smallest members whose sum >= X% of the total;
- Topmost members whose sum >= X;
- Smallest members whose sum >= X;
- Members with value = X;
- Members with value <> X;
- Members with value > X;
- Members with value >= X;
- Members with value < X;
- Members with value <= X;
- Members with value in the range from X to Y;
- Topmost X members;
- Smallest X members;

If you filter elements by property, the list of conditions depends on the type of the property: is it text, numeric or date.

If the property type is numeric or date, the list of conditions is identical to the list for measure.

If the property is of text type, the list of conditions is as following:

- Members with values satisfying mask (the mask is case insensitive; you can use symbol «*» in the beginning and in the end of the mask);
- Members with values = X;
- Members with values <> X;
- Members with values > X;

- Members with values >= X;
- Members with values < X;
- Members with values <= X;
- Members with values in range between X and Y;
- Topmost X values;
- Smallest X values;

3.2.4 Sorting of Selected Members

In most of the cases the dimension members are sorted by names, but you can override the method of member sorting.

Let us build the following report:

Columns 🔚 - + Date/Date.Calendar - 🕵 ×					
Rows 🗧 - + Product/Product Categories - 🗔 ×					
Rows / Columns Filter	Sorting				
Context	Product/Product	+ CY 2003	+ CY 2004		
	Accessories	\$296,532.88	\$161,794.33		
	🕂 Bikes	\$25,551,775.07	\$13,399,243.18		
	🕂 Clothing	\$871,864.19	\$386,013.16		
Measures - Components \$5,482,497		\$5,482,497.29	\$2,091,011.92		
Reseller Sales Amount ×	🕂 Bottom Br	\$30,792.82	\$21,033.55		
	🕂 Brakes	\$45,187.31	\$20,831.40		
	🕂 Chains	\$5,685.93	\$3,691.78		
	🕂 Cranksets	\$124,249.27	\$79,693.34		
	🕂 Derailleurs	\$44,321.13	\$25,888.36		
	🕂 Forks	\$28,259.07			
	🕂 Handlebars	\$88,710.99	\$28,237.63		
	🕂 Headsets	\$25,010.36			
	🕂 Mountain F	\$2,067,908.64	\$873,844.03		
	ည 🕂 Pedals	\$94,060.53	\$53,423.38		
	🔓 🕂 Road Fram	\$1,631,377.27	\$356,197.37		
	ह ⊕ Saddles	\$37,831.96	\$17,997.43		
	E 🕂 Touring Fr	\$1,032,154.04	\$610,173.64		
8 + Wheels \$226,947.94					
Highlight					

In order to set up sorting, open the member selector and choose the tab "Sorting":



There are 3 options here:

- No sorting;
- Sort all levels using the same criteria;
- Sort levels using different criterias.

Let us sort the elements on the level Subcategory in descending order by Reseller Sales Amount in 2003. For this you have to select the last option – "Sort levels using different criterias". Then select the tab which corresponds to the level Subcategory and switch on the sorting for this level:

Member Selector: Product/Product Categories		x
Selection Filte Sorting Dptions		
Context dependency on previous hierarchies		
© Do not sort		
◯ Sort all levels by a single criterion		
Sort each level by different criteria		
Default Category Subcategory Product		_
Set sorting		
By property		
Name (translated)		
© By measure		
The first measure among selected 🔹 👻		
Override Context		
Override Context for Hierarchy		
Sort Order: O Ascending O Descending		
Save Hierarchy		
		_
OK Canc	el	

Choose "by measure" and in the dropdown list choose "Reseller Sales Amount":

🟮 Member Selector: Product/Product Categories 🗖 🗖	x
Selection Filter Sorting Options	
Context dependency on previous hierarchies	
🔘 Do not sort	
© Sort all levels by a single criterion	
Sort each level by different criteria	
Default Category Subcategory Product	
Set sorting	
© By property	
Name (translated)	
By measure	
Reseller Sales Amount	
Override Context	
Override Context for Hierarchy	
Satt Ordan	
Soft Order: Order: Order Ascending	
Save Hierarchy	
OK Cancel	

In order to take into account the values for the year 2003, you have to override context. For this press the button "Override Context for Hierarchy":

Override C	ontext		
Overrid	e Context for Hierarchy		
Sort Order:	C Ascending	Descending	
		OK Cance	



In the dialog box select the "Date.Calendar" hierarchy and press «OK»:

Again press «OK». You will have a member selector form where you have to select the year 2003 and press «OK»:



Finally, choose the descending sort order and press «OK»:

Member Selector: Product/Product Categories		x
Selection Filter Sorting Options		
Context dependency on previous hierarchies		
🔘 Do not sort		
© Sort all levels by a single criterion		
Sort each level by different criteria		
Default Category Subcategory Product		
Set sorting		
© By property		
Name (translated)		
O By measure		
Reseller Sales Amount -		
Override Context		
Date/Date.Calendar: All Periods.CY 2003		
Override Context for Hierarchy		
Sort Order: O Ascending O Descending		
Save Hierarchy		
OK Can	cel]

After this you'll see that all elements of the level "Subcategory" inside each group are sorted in descending order by the value of "Reseller Sales Amount" in the year 2003.

If you expand another product category, you will see that the elements on the "Subcategory" level are sorted in the same way. That is, the sorting is applied to all members of the selected level (in this case – "Subcategory") inside the categories:

	+ CY 2003	+ CY 2004
Accessories	\$296,532.88	\$161,794.33
🕂 Bikes	\$25,551,775.07	\$13,399,243.18
Clothing	\$871,864.19	\$386,013.16
+ Jerseys	\$290,004.73	\$150,804.63
Horts	\$179,301.33	\$113,639.82
+ Vests	\$131,993.28	\$91,808.09
🕂 Gloves	\$102,156.07	\$16,823.04
🕂 Tights	\$78,937.08	
ဦ 🕒 Bib-Shorts	\$64,876.99	
듚 🕞 Caps	\$13,800.95	\$5,665.91
ਹੱ 🕂 Socks	\$10,793.76	\$7,271.66
Components	\$5,482,497.29	\$2,091,011.92
🕂 Mountain Frames	\$2,067,908.64	\$873,844.03
🕂 Road Frames	\$1,631,377.27	\$356,197.37
🕂 Touring Frames	\$1,032,154.04	\$610,173.64
+ Wheels	\$226,947.94	
🕂 Cranksets	\$124,249.27	\$79,693.34
🕂 Pedals	\$94,060.53	\$53,423.38
🕂 Handlebars	\$88,710.99	\$28,237.63
🕂 Brakes	\$45,187.31	\$20,831.40
Derailleurs	\$44,321.13	\$25,888.36
த 🕒 Saddles	\$37,831.96	\$17,997.43
🖥 🕂 Bottom Brackets	\$30,792.82	\$21,033.55
a Forks	\$28,259.07	
E 🕂 Headsets	\$25,010.36	•
ပိ 🕂 Chains	\$5,685.93	\$3,691.78

3.2.5 Additional options

3.2.5.1 Option "Show Parent Elements"

If you want to see for each element its parent elements, you don't obligatory need to include the parent elements into selection. You can use the option "Show Parent Elements" on the tab "Options" of the member selector form:

😂 Member Selector: Produc	t/Product Categories	⊨ ×
Selection Filter Sortin	Options	
Offline mode	\smile	
Show parent elements		
Top visible level	(All)	
Display Mode:		
🕒 Name		
C Key and Name		
O Advanced		
All:	Selected:	
KEYO A	>> Elements Tree	Up
MEMBER_VALUE	>	Down
Category		
Color		
Davs to Manufacture		
	ОК	Cancel

If you select this option, you will be able to set up the topmost level of the visible elements:

Show parent elements	
Top visible level	(All) -
	(All)
	Category 😼
	Subcategory
Display Mode:	Product



Select the level "(All)", go to the first tab "Selection" and uncheck all parent elements:

Close the member selector form by pressing «OK». You will see that the parent elements are visible in the captions of the rows:

	0				🕂 Q1 CY 2003	🕂 Q2 CY 2003	🕂 Q3 CY 2003	+ Q4 CY 2003
				Mountain Bikes	\$1,890,325.97	\$2,127,316.27	\$2,530,563.65	\$2,306,057.14
	.	ŝ	(\pm)	Road Bikes	\$2,795,651.38	\$3,271,296.85	\$2,796,037.81	\$2,431,395.34
	ť	8	+	ouring Bikes			\$2,606,901.36	\$2,796,229.31
	Β	:	+	Caps	\$1,780.88	\$2,924.48	\$5,270.04	\$3,825.55
	4	Ē	+	Gloves	\$25,381.10	\$41,090.02	\$20,948.74	\$14,736.21
	₹.	ŏ	F	Shorts	\$11,230.13	\$21,406.93	\$81,993.61	\$64,670.66

3.2.5.2 Option "Display Mode"

On the "Options" tab there is one more useful option – possibility to display properties of elements in the table.

Select any set of goods in the member selector, for example:

🖂 🏹 🛄 All Products
🕀 🥥 🗌 Accessories
🕀 🍚 📃 Bikes
🖃 🍚 📃 Clothing
😑 🅥 🔤 Bib-Shorts
Men's Bib-Shorts, L
Men's Bib-Shorts, M
Men's Bib-Shorts, S
🕀 🥥 🗌 Caps
🖃 🅥 🗌 Gloves
Full-Finger Gloves, L
Full-Finger Gloves, M
Full-Finger Gloves, S
Half-Finger Gloves, L
Half-Finger Gloves, L
Half-Finger Gloves, M
Half-Finger Gloves, M
Half-Finger Gloves, S
Half-Finger Gloves, S
🕀 🍑 📃 Jerseys
🗄 🎱 📃 Shorts
🕀 🍑 📃 Socks



Open the "Options" tab. Select the radiobutton "Advanced":

Find the property "Standard Cost" and add it to the list of displayed properties, and press «OK»:



As a result, you will see prices near each product:

		🕂 Q1 CY 2003	🕂 Q2 CY 2003	🕂 Q3 CY		
Men's Bib-Shorts, L	37.1209	\$3,401.62	\$7,937.12			
Men's Bib-Shorts, M	37.1209	\$11,014.78	\$22,329.72			
Men's Bib-Shorts, S	37.1209	\$7,127.21	\$13,066.55			
Full-Finger Gloves, L	15.6709	\$12,858.70	\$17,113.39			
Full-Finger Gloves, M	15.6709	\$7,800.74	\$12,479.46			
Full-Finger Gloves, S	15.6709	\$1,344.85	\$2,894.84			
Half-Finger Gloves, M	9.7136	\$2,105.21	\$4,838.85			
Half-Finger Gloves, S	9.7136	\$1,271.60	\$2,096.28			
Standard Cost: 9.7136						

You can set up several properties to display. Let us add the ID of the goods before its name. Go back to the "Options" tab and add the property KEY0 to the displayed list and move it before the "Elements Tree" using the "Up/Down" buttons:

Member Selector: Product/	Product Categories	= x
Selection Filter Sorting	Options	
Offline mode		
Show parent elements		
Top visible level	Category	~
Display Mode: Name Key and Name Advanced All: KEYO NAME MEMBER_VALUE Category Class	Selected: >> KEYO Elements Tree Standard Cost	Up
Color Days to Manufacture	<< OK	Cancel

Press «OK» and you will see the following report:

		🕂 Q1 CY 2003	+ Q2 CY 2003	+ Q3
461 Men's Bib-Shorts, L	37.1209	\$3,401.62	\$7,937.12	
460 Men's Bib-Shorts, M	37.1209	\$11,014.78	\$22,329.72	
459 Men's Bib-Shorts, S	37.1209	\$7,127.21	\$13,066.55	
470 Full-Finger Gloves, L	15.6709	\$12,858.70	\$17,113.39	
469 Full-Finger Gloves, M	15.6709	\$7,800.74	\$12,479.46	
468 Full-Finger Gloves, S	15.6709	\$1,344.85	\$2,894.84	
464 Half-Finger Gloves, M	9.7136	\$2,105.21	\$4,838.85	
462 Half-Finger Gloves, S	9.7136	\$1,271.60	\$2,096.28	
			· · · · · · · · · · · · · · · · · · ·	
As you may see, to the left there are IDs of the goods, to the right – their prices.

You may have noticed that for quick displaying of the IDs and names there is a special mode "Key and Name":

Selection Filter Sorting Options Offline mode Show parent elements Top visible level Category Display Mode: Name Key and Name Key and Name Advanced All: KEY0 NAME MEMBER_VALUE Category Class Color Daves to Manufacture OK Cancel	Member Selector: Product/Product Categories	•	x
 Offine mode Show parent elements Top visible level Display Mode: Name Key and Name Key and Nam Key and Nam Key and Name Key and Na	Selection Filter Sorting Options		
Show parent elements Top visible level Display Mode: Name Name Key and Name Key and Name Advanced Al: Key Name Name MemBER_VALUE Category Color Name Name Color Name Color Name Color Name Color Name Color Name Color Name Name <td>Offline mode</td> <td></td> <td></td>	Offline mode		
Show parent elements Top visible level Category Display Mode: Image: Imag			
Top visible level	Show parent elements		
Top visible level Category Display Mode: Name Keyo and Name Advanced Al: Selected: KEYO NAME MEMBER_VALUE Category Class Color Davs to Manufacture KEYO Category Class Color Category Category Class Color Category			
Display Mode: Name Key and Name Advanced Al: KEY0 NAME MEMBER_VALUE Category Class Color Davs to Manufacture OK Cancel	Top visible level Category		-
Display Mode: Name Key and Name Advanced Al: KEY0 NAME MEMBER_VALUE Category Class Color Aus to Manufacture Key Color Aus to Manufacture Key Key Key Key Key			
Display Mode: Name Key and Name Advanced Al: Selected: KEY0 NAME MEMBER_VALUE Category Class Color Davs to Manufacture			
 Name Key and Name Advanced Al: Selected: KEY0 NAME MEMBER_VALUE Category Class Color Naws to Manufacture OK Cancel 	Display Mode:		
Key and Name Advanced Al: Selected: KEY0 NAME MEMBER_VALUE Category Class Color Davs to Manufacture OK Cancel	© Name		
Advanced Al: Selected: KEY0 NAME MEMBER_VALUE Category Class Color Davs to Manufacture OK Cancel	Key and Name		
All: Selected: KEYO NAME MEMBER_VALUE Category Class Color Davs to Manufacture	O Advanced		
KEY0 NAME NAME Elements Tree MEMBER_VALUE Standard Cost Category Class Color <	All: Selected:		
NAME MEMBER_VALUE Category Class Color Davis to Manufacture	KEYO KEYO	Up	
MEMBER_VALUE Category Class Color Davs to Manufacture	NAME Elements Tree		
Class Color Davs to Manufacture	MEMBER_VALUE > Standard Cost	Down	
Color Davs to Manufacture	Class		
Davs to Manufacture OK Cancel	Color		
OK Cancel	Davs to Manufacture		
OK Cancel			
OK Cancel			
	ОК	Cancel	

3.3 Selection in the Table

You can select the necessary items with the help of context menu (opens with the right mouse button) in the table:

Columns 😫 🗕 +	Date/Date.Calendar	- 😡 ×
Rows 🗎 🗕 +	Product/Product Cate	egories 👻 🗔 🗙
Rows / Columns Filter	Sorting	
Context Measures Reseller Sales Amount	Product/Prod (+ + Accessories + Bikes + Clothing + Componer	CY 2001 + CY 2002 \$20,235.36 \$92,735.3 Drill by • Drill by on New Page • Drill Up • Drill Down •
	© ↓ ↓ ↓ ↓ ↓	Hide Item Keep Only This Hide Siblings Show All Children Show Level Member Selector Actions Sorting Filter Formatting

We invoked the popup menu for the "Bikes" item on the picture. Let us look at every possible action.

The action "Show By" changes the structure of the table. Therefore we will look at it in the next section.

3.3.1 Drill Up/Down

Operation "Drill down" makes so that the selection goes inside the element on the deeper level. If we apply it for "Bikes" we will see all product subcategories which belong to the "Bikes" category:

	+ CY 2001	+ CY 2002	+ CY 2003	+ CY 2004
🕂 Mountain Bikes	\$4,545,336.51	\$9,190,838.09	\$8,854,263.03	\$3,902,246.74
🕂 Road Bikes	\$2,850,012.12	\$10,765,176.58	\$11,294,381.37	\$4,448,636.90
🕂 Touring Bikes			\$5,403,130.67	\$5,048,359.55

Operation "Drill Up" is the opposite one to "Drill Down".

3.3.2 Hide Item, Hide Siblings and Show All Children

Operation "Hide Item" hides the item from the selection. If we apply it to the "Road Bikes" (as it is shown on the picture):

	+ CY 2001	+ CY 2002
+ Accessories	\$20,235.36	\$92,
🖃 Bikes	\$7,395,348.63	\$19,956,
🕂 Mountain Bikes	\$4,545,336.51	\$9,190,
👸 🕂 Road Bikes 👘	#2.050.012.12	\$10,765
🚡 🕂 Touring Bikes	Show by	•
+ Clothing	Drill Un	\$485,
+ Components	Dimop	\$3,610
	Drill Down	
	1.12.1.75	
	Hide Item	
	Hide Siblings ^나 중	
	Show All Children	

the element will disappear from the table:

	+ CY 2001	+ CY 2002
+ Accessories	\$20,235.36	\$92
 Bikes 	\$7,395,348.63	\$19,956
ु 🕣 Mountain Bikes	\$4,545,336.51	\$9,190
🚡 🕞 Touring Bikes		
+ Clothing	\$34,376.34	\$485
Components	\$615,474.98	\$3,610

In order to show all hidden elements under "Bikes" you need to select the item "Show All Children" for the "Bikes" element:

	+ CY 2001	+ CY 2002
Accessories	\$20,235.36	\$93
 Bikes 	#7 20E 240 E2	\$19,95
💡 🕂 Mountain Bil	Show by	\$9,19
Touring Bike Clothing	Drill Up	\$48
+ Components	Drill Down	\$3,61
	Hide Item	
	Hide Siblings	
	Show All Children	
	Show Level	

After that the element "Road Bikes" will become visible again:

	+ CY 2001	+ CY 2002
Accessories	\$20,235.36	\$92
🔁 Bikes	\$7,395,348.63	\$19,956
🕂 Mountain Bikes	\$4,545,336.51	\$9,190
🖁 🕂 Road Bikes	\$2,850,012.12	\$10,765
🚡 🕂 Touring Bikes		
🕂 Clothing	\$34,376.34	\$485
🕂 Components	\$615,474.98	\$3,610

The action "Hide All Siblings" works in the same way as "Hide Item" with the only difference that it hides not the element itself, but the siblings of the element.

Columns 😫 🗕 +	Date/Date.Calendar 👻 😡 🗙							
Rows 📒 - Pro	uct + 🔞 x							
Rows / Columns Filter	Sorting							
Context	Product	+ CY 2007						
	AWC Logo Cap	4,705.36\$			4			
	AWC Logo Cap	9,095.59\$			E			
	Bike Wash - Dissolver	6,733.09\$						
	Cable Lock	6,140.52\$						
	Chain	5,685.93\$						
	Classic Vest, L	457.20\$						
	Classic Vest, M	48,971.08\$						
	Classic Vest, S	82,565.00\$						
	Front Brakes	31,576.61\$						
	Front Derailleur	26,903.77\$						
easures	Full-Finger Gloves, L	29,972.09\$						
acollar Cales Amount	Full-Finger Gloves, M	20,280.20\$						
eseller Sales Amount X	Full-Finger Gloves, S	4,239.68\$						
	Half-Finger Gloves, L	1,667.21\$						
	Half-Finger Gloves, L	5,839.70\$						
	Half-Finger Gloves, M	6,944.06\$						
	Half-Finger Gloves, M	18,380.76\$						
	Half-Finger Gloves, S	3,367.88\$						
	Half-Finger Gloves, S	11,464.49\$						
	Hitch Rack - 4-Bike	118,428.47\$						
	HL Bottom Bracket	22,597.14\$						
	HL Crankset	87,145.10\$						
	HL Fork	23,545.67\$						
	HL Headset	8,307.02\$						
	HL Mountain Frame - Black, 38	89,809.75\$						
	HL Mountain Frame - Black, 38	118,224.96\$						
	HL Mountain Frame - Black, 42	152,382.12\$						
	HL Mountain Frame - Black, 42	234,830.40\$						
	HL Mountain Frame - Silver, 38	154,808.72\$						
	HL Mountain Frame - Silver, 38	249,229.20\$						
Highlight	HL Mountain Frame - Silver, 42	13,396.91\$						
	HL Mountain Frame - Silver 42	105 610 20#						
Table 1					Search			
be: uranus\sql2008, Advent	ture Works DW 2008R2 Folders, Advent	ture Works Rows: 2	6 Columns: 1					

Let us look at the example with more than 100 elements in the products list:

Let us assume we want to hide one of the products ("Cable Lock"):

Product					
AWC Logo Cap					
	9	9,095.59\$			
solver	6	5,733.09\$			
		5,140.52\$			
Drill by	- F 5	5,685.93\$			
Drill by on New Page		457.20\$			
48,971.08					
Drill Up	82	2,565.00\$			
D. 11 D	31	1,576.61\$			
Drill Down	26	5,903.77\$			
Hide Item	29	9,972.09\$			
	20	0,280.20\$			
Keep Only This		4,239.68\$			
Hide Siblings	<u> </u>	1,667.21\$			
	5	5,839.70\$			
Show All Children	6	5,944.06\$			
	solver Drill by Drill by on New Page Drill Up Drill Down Hide Item Keep Only This Hide Siblings Show All Children	+ CY 2 solver 44 Drill by • 9 Drill by on New Page • 44 Drill Up 83 Drill Down 26 Hide Item 27 Keep Only This 44 Hide Siblings 5 Show All Children 6			

After opening member selector again, we will see what products we've hidden:

📚 Member Selector: Product	x
Selection Filter Sorting Options	
□ ;Σ	
Product	
Cable Lock	

This functionality is switched on only in the case when the group contains more than 100 elements.

3.4 Change of the Page Structure

3.4.1 Page Structure

Under the term "Page structure" we mean all that information which describes what is the selection on the columns and rows, what is displayed inside the page, what is the format of the numbers, what filters and sorting rules exist, etc. If you were given enough rights by administrator, you will be able not only select the elements (as shown above), but also to change the page structure.

First of all make sure that in the menu "View" under submenu "Designers" all designers are selected:

htt	http://bat.site/								
	<u>V</u> ie	w	<u>D</u> ata	<u>T</u> able	<u>L</u> anguage	: <u>H</u> e	lp		
0	\checkmark	Sta	tus Bar				Descr	ribe 🚷 🐼 1009	% -
ion	\checkmark	Din	nension	s / Measu	res Ctrl	+D			
t	53	On	ly Data		Alt+En	iter			
	¥K	Dat	ta and D	esigners	Alt+En	iter	Calenc	dar: Calendar Year 👻 🕻	🔍 🗙
		De	signers			•		Show All	L.,
	_		Rows	s / Columns	Filter	Sortin		Hide All	
~			Contex	t			\checkmark	Context	001
Cy						+A	\checkmark	Measures	20,2
							\checkmark	Chart Properties	45,3
er D)e					Bike	\checkmark	Rows / Columns	50,0
						ΞC	\checkmark	Filter	34,3
		Ŧ				<u>+</u> C	\checkmark	Sorting	15,4

If not all are selected – choose "Data and Designers" menu item.

If you have no such menu items it means that administrator has restricted you from using the designers, so you may skip this section.

3.4.2 Designers

All pages can be divided into several zones:



The area which is selected with red represents all dimensions and measures. You can drag and drop their elements to areas which are selected with blue. The latter are called "designers" – they defined the structure of the page.

There is the way to show or hide at once all designers in two ways:

- 1. To press Alt+Enter on the keyboard.
- 2. To press button "Data and Designers" or "Only Data" on the toolbar:

6	📀 Business Analysis Tool (Report Module) - http://uranus:88/							
	<u>A</u> pplication <u>M</u> odule <u>R</u> eports Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols <u>H</u> elp							
1	🕞 🕞 💾 🔣 🔀 🚱 🌾 🔄 😥 🔂 🛐 🎛 Description 🛛 🐮 🕸 🏖 🛛 100% 🕞 🌐 Table			• •				
	Z1 (Version 1 from 12/5/2013) Dimensions View only data (Alt+Enter)			×				

3. Enter the "View" menu and select one of the items:



If you have hidden all designers, the report will look like this:

٢	Business Ana	alysis	Tool	(Report N	1odule)	- htt	p://uran	ius:88,	/								-	в x
	<u>Application</u>	<u>M</u> o	dule	<u>R</u> eport	ts Rep	oort	<u>P</u> age	<u>V</u> iev	v <u>D</u> ata	<u>T</u> abl	e T <u>o</u> o	ls <u>H</u> el	р					
: (3 🕤 💾			3 🚯	6 6:	1	&	2 3 X X X	Descrip	tion	<i>5</i> 3	0 C	X 1	• %00	靊	Table		-
			Z2	(Version 1	from 1/9,	/2014)												×
	Setting	15	Pro	duct/Prod	uct Cat.	. (+) (CY 2001		∓ CY 200	2	F CY 20	003	F CY :	2004				
			(+)A	ccessorie	5		\$20,2	35.36	\$92,	735.35	\$296	5,532.88	\$1	61,794.3	3			
	<u> </u>		E	Bikes		\$	7,395,3	48.63	\$19,956,	014.67	\$25,551	1,775.07	\$13,3	99,243.18	3			
	2			+ Mounta	in Bikes	; \$	4,545,3	36.51	\$9,190,	838.09	\$8,854	4,263.03	\$3,9	02,246.74	4			
	List.		l S (+ Road B	ikes	\$	2,850,0	12.12	\$10,765,	176.58	\$11,294	4,381.37	\$4,4	48,636.9	D			
			1	+ Touring	Bikes						\$5,403	3,130.67	\$5,0	48,359.5	5			
			+ (Clothing			\$34,3	76.34	\$485,	587.15	\$871	1,864.19	\$3	86,013.10	5			
			+	Componer	nts		\$615,4	74.98	\$3,610,	092.47	\$5,482	2,497.29	\$2,0	91,011.93	2			
	1.19																	
	Report	S																
		:																
		- 1																
					_													
				a lable 1	J											Sea	rch	
Lo	Login: mikle Server: http://uranus:88/ Rows: 7 Columns: 4																	

3.4.3 Designer "Rows / Columns"

This designer shows what is displayed on the rows and columns. It is located in the upper part of the window above the table:

🏮 Business Analysis	Tool (Report Module)	- http://uranus:88	/			_ = ×
<u>Application M</u>	odule <u>R</u> eports Rep	ort <u>P</u> age <u>V</u> ie	w <u>D</u> ata <u>T</u> able	T <u>o</u> ols <u>H</u> elp		
i 🔾 🛇 🖪	19 🔊 🤣 🔝	🔊 🕹 💽 🗄	Description	; 🔌 😎 🏖	100% 🔹 🏥 Table	•
		×				
Settings	Dimensions	Column	s 🖹 – +	Date/Date.Calendar 👻	- 🗔 ×	
	🕀 👬 Manufacture	Time Rows	這 - +	Product/Product Categ	gories 🔻 🕵 🗙	
List	🕂 📰 Product Cate	el C Rows	/ Columns Filter	Sorting		

On our example we see that columns display time, and rows display products. Let's show how this can be changed. Drag the item "Date.Calendar" on rows:

Columns	999	- + Date/Date.Calendar - 😡 ×
Rows	100	- + Product/Product Categories - Co

During the movement process you can notice a vertical red line shown in the place where the item will be dropped. The result after the movement will be the following:

Columns	111	
Rows	199	– + Product/Product Categories - 🗔 × 📥 + Date/Date.Calendar - 🗔 ×

Drag the element "Product" on columns in the same way. After these operations the page will look like this:

Columns 闊	- +	Product/Produ	oduct/Product Categories 👻 🕵 🗙								
Rows 🗮	- +	Date/Date.Cal	endar 👻 🕵 🗙								
Rows / Columns Filter Sorting											
Context		Date/Date.	+ Accessories	Bikes	Bikes			+			
		Calendar			🕂 Mountain Bi	+ Road Bikes	🕀 Touring Bikes	υ			
		+ CY 2001	\$20,235.36	\$7,395,348.63	\$4,545,336.51	\$2,850,012.12					
		+ CY 2002	\$92,735.35	\$19,956,014.67	\$9,190,838.09	\$10,765,176.58					
		+ CY 2003	\$296,532.88	\$25,551,775.07	\$8,854,263.03	\$11,294,381.37	\$5,403,130.67				
		+ CY 2004	\$161,794.33	\$13,399,243.18	\$3,902,246.74	\$4,448,636.90	\$5,048,359.55	i 📃			
Measures											
Reseller Sales Amount	х										

You can drag and drop "Dimensions" and "Measures" (in the left part) on rows and columns:



Let's drag the item "Reseller Type" on columns and drop it after "Product Categories". We will get the following page:

Dimensions 🙋 🔛 🚼	Columns 🗒 – +	Product/Produ	ct Categories 👻 🗔	× - + Reseller,	/Reseller Type 🔻 🤇	×	
🕀 💓 Promotion			-				
😑 🙋 Reseller	Rows 🗄 - +	Date/Date.Ca	endar 👻 🞑 🗙				
🕀 👬 Reseller Bank		Casting					
🕀 🏭 Reseller Order F	Rows / Columns	sorting					
🕀 🏭 Reseller Order	Context	Date/Date.	+ Accessories			Bikes	
🕀 🟥 Reseller Type		Calendar	7 Canalaha Ri		C Wanahawaa	Consiste Di	
🕀 🎲 Reseller 📃		CX 2001	+ Specialty Bl	+ Value Adde	+ warehouse	+ Specialty Bl	+ Value Adde +
Address	Measures	+ CY 2002	\$8,002,70	\$0,700.94	\$11,474,42	\$0/9,0/1.30	\$2,747,130.35
🕀 🚦 Annual Revenue	Reseller Sales Amount ×	+ CY 2003	\$45,294,17	\$84,431,87	\$166,806,84	\$1,933,355,66	\$12,209,159,69 \$
🕀 🚦 Annual Sales		+ CY 2004	\$11,828.60	\$51,371.33	\$98,594.41	\$1,264,841.63	\$6,700,021.91
🕀 🚦 Bank Name							
🕀 🦉 Business Type							
🕀 🚦 First Order Year							
🗄 🚦 Last Order Year 🛛 🥃							
al Amount		8					
Allount							
Average Unit Price							
Quetomer Count							
End of Day Rate							
End of Day Rate							
Extended Amount							
Sets III							
	Highlight		<				۱.
	Table 1						Search +

The sets of "Reseller Type" and "Product Categories" are "crossjoined" and thus the page allows us to see which product was sold by which reseller.

In the same way you can combine arbitrary number of dimensions and measures on the rows or columns, getting arbitrary pivot table.

3.4.4 Context/Global context

"Context" is the designer that limits the data which you're watching. It is located to the left of the table:

Columns	Columns 📒 - + Product/Product Categories - 🗔 × - + Reseller/Reseller Type - 🗔 ×										
Rows	10	- +	Date/Date.Ca	lendar 👻 🗔 🗙							
Rows /	Columns	Filter	Sorting								
Context			Date/Date.	+ Accessories			- Bik				
			Calendar	+ Specialty Bi	+ Value Adde	+ Warehouse	(+)Sp				
			+ CY 2001		\$8,760.94	\$11,474.42	\$				
			+ CY 2002	\$8,002.70	\$30,438.68	\$54,293.97	\$2,				
			+ CY 2003	\$45,294.17	\$84,431.87	\$166,806.84	\$1,9				
			+ CY 2004	\$11,828.60	\$51,371.33	\$98,594.41	\$1,				
Measures Reseller S	Sales Amoun	it ×									

You can drag dimensions into context (the same when you do it with columns and rows). Let's assume we are interested in sales for "Miami". Drag the dimension "Geography" from the "Dimensions" into "Context". The member selector dialog will pop up:

S Member Selector: Geography	×
Selection Filter Options	
😑 Σ) 🗌 All Geographies	
🕀 🌒 🗌 Australia	
🗄 🅥 🗌 Canada	
🕀 🥥 🗌 France	
🕀 🥥 🗌 Germany	=
🕀 🥥 🗌 United Kingdom	
😑 🥥 🗌 United States	
🕀 🍚 🗌 Alabama	
🕀 🍚 🦲 Arizona	
🕀 🍚 📃 California	
🕀 🍚 🔤 Colorado	
🕀 🍑 🗌 Connecticut	
🗆 🅥 🔄 Florida	
🕀 🥥 🔄 Altamonte Springs	
🕀 🍑 🔄 Bradenton	
🗄 🥥 🗌 Clearwater	
🗄 🥥 🗌 Destin	
Hollywood	
🗄 🥥 Kendall	
🗄 🥥 Lakeland	
Merritt Island	
🕀 🔍 Miami	_
Show Search >>	
OK Cancel	

Columns 闊	- +	Product/Produc	ct Categories 👻 🕵	× - + Reseller/	Reseller Type 👻 😡	x	
Rows 🗎	- +	Date/Date.Cale	endar 👻 🗔 🗙				
Rows / Columns	Filter	Sorting					
Context		/	Bikes			Bikes	
<	(ā x	Date/Date. Calendar				🕂 Mountain Bike	s (
C > Geography	<u> </u>	calcindar	🕂 Specialty Bi	🕂 Value Adde	🕂 Warehouse	🕂 Specialty Bi	🕂 Value Adde [
		+ CY 2001	\$4,685.80	\$2,566.42			
		+ CY 2002	\$13,816.44	\$1,308.94	\$78,283.58	\$7,416.93	
		+ CY 2003	\$21,742.39	\$64,993.31	\$193,138.12	\$9,196.35	\$63,923.26
		+ CY 2004	\$13,646.08	\$43,169.65	\$104,726.45	\$5,507.98	\$43,169.65
Measures Reseller Sales Amount Highlight	t ×						
Hable 1							Search

Select "Miami" and press «OK». You will get such report:

There is an item "Geography" in the context. It means that the table is currently displaying data for one city - Miami. In the same way you can drag other dimensions into context for making the selection narrower.

"Global context" is the context which is applied to all the pages of the report:

🟮 Business Analysis	s Tool (Report Module) - http://u	ıranus:88/		 5 X
Application M	odule <u>R</u> eports Report <u>P</u> ag	ge <u>V</u> iew <u>D</u> ata		
	Z1 (Version 1 from 2/17/2014)	<u>53</u> <u> K</u> Descriptio	n C C 100% - 100	×
Settings	Dimensions 🔯 🔛 🔝	Global Context		3
		Columns 📙	- + Product/Product Categories + 0 × - + Reseller/Reseller Type + 0 ×	
List	🕀 😥 Delivery Date	Rows	- + Date/Date.Calendar - 🕵 ×	_111

Only administrator can enable/disable global context. User can edit the global context (the bar will be painted yellow), but user cannot save his settings. User can revert his changes quickly by



You can switch on/off the display of global context in the "View" menu:

<u>V</u> iev	v <u>D</u> ata	<u>T</u> able	T <u>o</u> ols	<u>H</u> elp					
\checkmark	Status Bar								
\checkmark	Dimensions / Measures Ctrl+D								
\checkmark	Global Co	ntext							
23	Only Data	1	lt+	Enter					
XX	Data and	Designers	Alt+	Enter					
	Designers			•					

Global context has lower priority over the context of the page: if the same hierarchy is present in the global context and in the page context, the MDX query will take into account the page context.

3.4.5 Time Selection

The page may contain time dimension in rows, columns or context:

Columns		- + Product/Product Categories - 😡 × - + Reseller/Reseller Type - 😡 ×							
Rows	199	- + Date/Date.Calendar - 😡 ×							
 Rows / Column	ns 📕	Filter Sorting Date/Date.Calendar							
Context	,	Date/Date. Bikes OY 2001, CY 2002, CY 2003, CY 2004 Bikes	-						

😂 Member Selector: Date/Date.Calendar 🛛 🗖 🗙
Selection Filter Sorting Options
Date Range O Tree
Fixed period
By days -
From begin 🔻 to now 👻
© Floating period
By days -
Last 1 📮 days 🐼 including this day
Show parent and child elements on levels:
Calendar Year
Calendar Semester
Calendar Quarter
E Month
V Date
OK

Member selector for time dimension will have additional functionality:

There are two radiobuttons in the upper part of the dialog. If you select "Date Range" option you will have a possibility to set either fixed or floating time period.

If you use fixed period, you can set "from-to" date range. After pressing «OK» you will see the same selection in the table:

Columns 😫 🗕 +	• Product/Product Categories 👻 📢	📚 Member Selector: Date/Date.Calendar	= x
Rows 🗄 Date/	Date.Calendar 👻 😡 🗙	Selection Filter Sorting Options	
Rows / Columns Filter	Sorting	Date Range O Tree	
Context	Date/Date. Bikes	Fixed period	
< > Geography 🙀 🔍	Calendar 🕂 Specialty Bi 🕂 V	By years 👻	
	CY 2002 \$13,816.44	From 2002 🕶 to 2004 👻	
	CY 2004 \$13,646.08		
		© Floating period	
		By years -	
		Last 12 🌲 years 🗇 including this year	

Floating period allows us to select "last N days", "last N weeks", "last N months" or "last N years", so that each time you open the report, you will see the information relatively to that date when you opened the report.

A note for administrators:

In order to make it possible to select in "Date range" mode it is necessary to design the dimension in appropriate way. The day key must be in format YYYYMMDD, the month key – in format YYYYMM, the week key – YYYYWW, the quarter key – YYYYQ, the year key – YYYY. Moreover, there must be a description for the hierarchy which "tells" the application what level is responsible for the day, what for the month and what for the year. For example: « [YMD=Day, YM=Month, YQ=Quarter, QW=Week, Y=Year] ». Day is the name of the day level, Month – of the month level, Year – of the year level, Week is the name of the week level, Quarter is the name of the Quarter level. It's not necessary for all five level to be present in description. If the name of one of the levels contains spaces it should be enclosed in square brackets [...].

3.5 Measures Designer

This designer allows you to set the measures that will be displayed in the table. The picture below displays only one measure – the store sales:



Drag the measure "Reseller Order Count" from the list of the measures (to the left) onto the "Measures" designer:

Dimensions 🔯 🔛	2	Columns 闊 –	+ [Date/Date.Calend	ar 👻 🕵 🗙 Reselle	r Sales Amount × R	eseller Order Count	×
		Dawa 19						
		Rows 😫 📮	* •	roduct/Product C	ategories 👻 📢 🗴			
🕀 😥 Date	=	Rows / Columns Filter		Sorting				
🗄 📴 Department		Context	Î		+ CY 2001		+ CY 2002	
Destination Currency			٦	Product/Produc t Categories	Reseller Sales	Reseller Order	Reseller Sales	Reselle
🕀 讨 Employee				t outregomes	Amount	Count	Amount	r Ord
🕀 何 Geography				+ Accessories	\$20,235.36	135	\$92,735.35	
🗄 📴 Internet Sales Orde				+ Bikes	\$7,395,348.63	345	\$19,956,014.67	
	⊒			+ Clothing	\$34,376.34	242	\$485,587.15	
Measures 📃	٠			+ Components	\$615,474.98	205	\$3,610,092.47	
🔇 Reseller Average U	^							
Reseller Extended A								
Reseller Freight Cost								
🔇 Reseller Gross Profit								
Reseller Gross Profit		Maasuras	31					
Reseller Order Count		Pecelles Celes Amount						
Reseller Order Qua		Reseller Sales Amount	<u>`</u>					
🕥 Reseller Ratio to All		Reseller Order Count	< l					
Reseller Ratio to Pa	=							
Reseller Sales Amount								
Reseller Standard P								
Deceller Tay Amount	<u> </u>							
Sets 📃	+							
🕀 🛅 Sets		Highlight						
								►
		Table 1					Search	•

As you see, the table has changed its view. Now it displays 2 measures "Reseller Sales Amount" and "Reseller Order Count" in different columns.

You can drag the measures from columns to rows:

Columns	999	- + Date/Date.Calendar - 😡 × Reseller Sales Amount × Reseller Order Count ×
Rows	999	- + Product/Product Categories - 🗔 ×

🙋 🔜 💽 Columns – + Date/Date.Calendar - 🗔 × 誯 🗄 💓 Account . 🗄 💓 Customer + Product/Product Categories - 😡 × Reseller Sales Amount × Reseller Order Count × Rows 13 🕀 😥 Date Rows / Columns Filter Sorting 🗄 😥 Delivery Date + CY. 🗄 💓 Department Product/Prod... Measures F CY 2001 + CY 2002 + Accessories Reseller Sales Amount \$20,235.36 \$92,735.35 Destination Currency
 \$296 eseller Order Count 135 356 🗄 💓 Employee + Bikes Reseller Sales Amount \$7,395,348.63 \$19,956,014.67 \$25,551 🕀 💓 Geography Measures Reseller Order Count 345 850 🗄 💓 Internet Sales Orde... Reseller Sales Amount x Reseller Sales Amount 🕂 Clothing \$34,376.34 \$485,587.15 \$871 Reseller Order Count Reseller Order Count 242 644 - + × + Components Reseller Sales Amount \$615,474.98 \$3,610,092.47 \$5,482 🔇 Reseller Average U... . Reseller Order Count 205 702 Reseller Extended A... Reseller Freight Cost 🕥 Reseller Gross Profit Reseller Gross Profit... Reseller Order Count Reseller Order Qua... Reseller Ratio to All ... Reseller Ratio to Pa... Reseller Sales Amount Reseller Standard P... --- Deceller Tay Amount 🕀 💼 Sets Highlight • [Table 1 Search...

After doing this you will get the following table:

Note: the measures are displayed in rows (not in columns).

3.6 Other Operations Changing the Page Structure

3.6.1 Virtual Hierarchies

In the section 3.1 of this document we've already described the types of hierarchies. Let us look at the table where there are more than one attribute hierarchies:

Столбцы 🗄 - + Geography - 🗔 × - Product/Class - 🗔 × - Product/Model Name - 🧔 ×											
Строки 🗄 – Date/Date.Month of Year 👻 🤹 – Product/Color 👻 🕵 🗙											
Строки / Столбцы Фильтры Сортировка	Строки / Столбцы Фильтры Сортировка										
Контекст	Date/Dat	ţ.	🕂 Canada								
< > Product/Product Categories	e.Month	성응	High		Low	Medium					
() Data Data Calendar	of Year	142	Mountain-200	Road-250	Road-650	Mountain-300	Road-550-W				
V Date/Date.Calentiar	February	Black	30,736.47\$	58,902.19\$	46,509.61\$	16,199.85\$					
		Red		63,876.15\$	55,212.70\$						
		Silver	19,885.63\$								
		Yellow					25,811.29\$				
Показатели	March	Black	67,620.24\$	48,430.69\$	29,597.02\$	40,823.62\$					
Decelles Color Amount		Red		53,352.29\$	21,610.52\$						
Reseller Sales Amount X		Silver	75,813.96\$								
		Yellow					27,011.81\$				

Let us join all the attribute hierarchies into ohe virtual hierarchy by pressing these buttons:

Столбцы 📒 🗮	– + Geography - 🗔 × – Product/Class - 🗔 × – Product/Model Name - 🗔 ×
Строки	– Date/Date.Month of Year 👻 🔍 – Product/Color 👻 🗔 🗙

As a result, out table will look like this:

Столбцы Строки Строки Строки / Столбцы Фильтры Coprиpoeка Контекст Саlendar Фильтры Сортировка Контекст Саlendar Фильтры Сортировка Сортировка Сортировка Саlendar Фильтры Сортировка Сортировка Саlendar Фильтры Сортировка Сортировка Саlendar Фильтры Сортировка Саlendar Фильтры Сортировка Саlendar Фильтры Сортировка Сортировка Саlendar Фильтры Сортировка Саlendar Фильтры Сортировка Сорти												
Строки — + Date/Date.Calendar - C × Date/Date.Month of Year × Product/Model Name x Строки / Столбцы Фильтры Сортировка Контекст — Date/Date. < > Product/Product Categories < x Date/Date. + CY 2007 — February 173,400.44\$ 89,638.66\$ Mountain-200 50,622.10\$ 30,736.475	Столбцы 🗧 – + Geography - 🗔 × Product/Class 🗔 × Product/Color 🗔 ×											
Строки / Столбцы Фильтры Сортировка Контекст Date/Date. Date/Date.Month of Year, Product/Model + Canada - High High Black Re - CY 2007 - February 173,400.444 \$99,638.664 - Montain-200 50,622.105 30,736.475												
Строки / Столбцы Фильтры Сортировка Контекст Date/Date. Date/Date.												
KOHTEKCT Date/Date. Calendar < > Product/Product Categories Calendar Date/Date. → High + CY 2007 → February 173,400.444 89,638.665 Mountain-200 50,622.105 30,736.475	Строки / Столбщы Фильтры Сортировка											
< > Product/Product Categories Calendar of Year, Product/Model High High ← CY 2007 ← February 173,400.44\$ 89,638.66\$ ▲ CY 2007 ← February 173,400.44\$ 89,638.66\$												
Calendar Product/Model Black Re + CY 2007 ■ February 173,400.44\$ 89,638.66\$ Mountain-200 50,622.10\$ 30,736,47\$		+ Low	+ Medium									
+ CY 2007 - February 173,400.44\$ 89,638.66\$ Mountain-200 50.622.10\$ 30,736,47\$	ed Silver	_										
Mountain-200 50.622.10\$ 30.736.47\$	63,876.15\$ 19,885.63\$	101,722.30\$	42,011.14\$									
	19,885.63\$											
Mountain-300			16,199.85\$									
Road-250 122,778.34\$ 58,902.19\$	63,876.15\$											
Road-550-W			25,811.29\$									
Road-650		101,722.30\$										
Reseller Sales Amount × Amount × 245,217.18\$ 116,050.93\$	53,352.29\$ 75,813.96\$	51,207.55\$	67,835.43\$									
Mountain-200 143,434.20\$ 67,620.24\$	75,813.96\$											
Mountain-300			40,823.62\$									
Road-250 101,782.98\$ 48,430.69\$	53,352.29\$											
Road-550-W			27,011.81\$									
Road-650		51,207.55\$										
Road-550 W Road-650	22,222.23\$	51,207.55\$	27,011.81\$									

Virtual hierarchies are easily recognizable: they are highlighted with a different color.

3.6.2 Swapping Rows and Columns

There is a way to quickly swap rows and columns with the help of this button on the toolbar:

8	Business A	nalysis Tool (f	Report Mod	lule) - htt	p://uran	us:88/								x
	<u>Application</u>	<u>M</u> odule	<u>R</u> eports	Report	<u>P</u> age	<u>V</u> iew	<u>D</u> ata	<u>T</u> able	T <u>o</u> ols	<u>H</u> elp				
1	6 6 🗄			6:6	2	S XK	Descript	ion C	3	📚 🥸 100%	t Table	- 💦 🕛 🗊		

3.6.3 Data Editing (Write Back)

0	Business An	nalysis Tool (F	Report Moo	dule) - http	p://uranus:8	8/						
	<u>Application</u>	<u>M</u> odule	<u>R</u> eports	Report	<u>P</u> age <u>V</u> i	ew <u>D</u> ata	<u>T</u> able	T <u>o</u> ols	<u>H</u> elp			
:	66 🗄		66	er 🔊	ی 😂	👔 🛛 Descrip	tion C	; 🐹 🐟	℃ 🥸 🛛 100%	- 🏥 🛛 Table	- I I I I I I I I I I I I I I I I I I I	
		AW1	(Version 2 fr	rom 2/17/20)14)						Editing	node
		Dimon	ione	178 III							Lucing I	lioue

This mode allows to edit data in the cubes. In order to edit data it is necessary for administrator to allow this functionality for the user, and it is necessary to have a measure group that supports the writeback mode.

During editing data it is possible to automatically update all the other data after finishing the edit operation:

Business Analysis Tool (Report Module) - http://uranus:88/	
<u>A</u> pplication <u>M</u> odule <u>R</u> eports Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols <u>H</u> elp	
ि 🔾 🖸 💾 📴 🖼 🕼 💿 💮 😓 😓 😨 🎛 Description 🛛 🕹 🕸 😨 🔢 Description 🖉 🕲 🕲 🕲 🕲 🕲 🕲 🕲 🕲 😨 😨 😨 😨 😨	N.
AW1 (Version 2 from 2/17/2014)	Automatic Data Refresh

3.6.4 Removing Controls from Rows, Columns and Context

Each control on designers has a cross icon:

Columns 😫 🗕 +	Columns 🗄 - + Date/Date.Calendar - 😡 ×										
Rows 🗄 - + Product/Product Categories - 😡 × Reseller Sales Amount × Reseller Order Count ×											
Rows / Columns Filter Sorting											
Context	Product/Prod	Measures	+ CY 2001	+ CY 2002	+ CY						
	Accessories	Reseller Sales Amount	\$20,235.36	\$92,735.35	\$296						
		Reseller Order Count	135	356							
	🕂 Bikes	Reseller Sales Amount	\$7,395,348.63	\$19,956,014.67	\$25,551						
Measures		Reseller Order Count	345	850							
Reseller Sales Amount ×	🕞 Clothing	Reseller Sales Amount	\$34,376.34	\$485,587.15	\$871						
Reseller Order Count ×		Reseller Order Count	242	644							
	Components	Reseller Sales Amount	\$615,474.98	\$3,610,092.47	\$5,482						
		Reseller Order Count	205	702							
	:										
	•										

By pressing it you can remove the control from the page. The corresponding dimension will not be displayed in the table after you delete its control.

3.6.5 Hiding Empty Rows and Columns

Sometimes it happens that the whole row or column has no data. To prevent the displaying of empty rows and columns on the page you can select the menu items "Hide Empty Rows" and "Hide Empty Columns" in the "Table" menu:

I	ab	le T <u>o</u> ols <u>H</u> elp				
t∉	ţ	Swap Rows and Colur	nns	· 🗐 Table	- I	🔓 🕛 🗊
\checkmark	′	Hide Empty Rows				
V	'	Hide Empty Columns				
		View Mode	•	argin 👻 🗙		
\checkmark	'	Group Measures		e.Month of Year	- 👰 x	
		Report Page Descripti	on			
		Show Visual Totals		eseller Sales	Receller Gross	
		Show Summary Colur	mns	mount	Profit Margin	
		Show Summary Rows		489,328.58\$	3.48%	
1		Search	Ctol. E	1,538,408.31\$	4.48%	
1		Search	Cul+r	844,721.00\$	3.27%	
1		Visualization		2,324,135.80\$	3.79%	
	3	Highlight		1,702,944.54\$	4.10%	
		5		713,116.69\$	3.18%	
5	3	Formatting		1,900,788.93\$	3.70%	
0	1	Export to NRP		1,455,280.41\$	4.02%	

3.6.6 Grouping of Measures

Let us look at the report where there are several measures from one folder:

Columns 😫 Reseller Sales Amount * × Reseller Gross Profit Margin * ×						
Rows 🔋 - + Date/Date.Calendar - 🗔 × - Date/Date.Month of Year - 🗔 ×						
Rows / Columns Filter Sorting	Rows / Columns Filter Sorting					
Context	Date/Date. Calendar	Date/Date. Month of	Reseller Sales Amount	Reseller Gross Profit Margin		
	+ CY 2005	July	489,328.58\$	3.48%		
	_	August	1,538,408.31\$	4.48%		
Measures		September	1,165,897.08\$	4.92%		
Reseller Sales Amount ×		October	844,721.00\$	3.27%		
Reseller Gross Profit Margin ×		November	2,324,135.80\$	3.79%		
		December	1,702,944.54\$	4.10%		
	+ CY 2006	January	713,116.69\$	3.18%		
		February	1,900,788.93\$	3.70%		
		March	1,455,280.41\$	4.02%		
		April	882,899.94\$	3.20%		
		May	2,269,116.71\$	3.85%		
		June	1,001,803.77\$	-60.41%		
		July	2,393,689.53\$	2.33%		
		August	3,601,190.71\$	3.68%		
		September	2,885,359.20\$	5.18%		
		October	1,802,154.21\$	4.31%		
		November	3,053,816.33\$	4.41%		
		December	2,185,213.21\$	5.11%		
	+ CY 2007	January	1,317,541.83\$	3.81%		
		February	2,384,846.59\$	3.22%		
		March	1 563 955 08¢	4 25%		

There is a possibility of grouping them. In the menu "Table" select the item "Group Measures":

Business Analysis Tool (Report Module) - http://127.0.0.1:8005/					
Application <u>M</u> odule <u>R</u> eports F	Report <u>P</u> age <u>V</u> iew <u>D</u> ata	<u>T</u> ab	<mark>le T<u>o</u>ols <u>H</u>elp</mark>		
) 🤿 🧔 🔢 🔛 🔛 🕒 🗧	🗽 🔊 🍃 🔝 🔣 Descript	t	Swap Rows and Columns	- 🖽 🛛 Table	- 🔂 🖑 🗊
AW (Version 1 from	11/4/2014)	\checkmark	Hide Empty Rows		
Sattings Dimensions M	N	\checkmark	Hide Empty Columns		
🕀 😥 Customer	Columns 🗮 Reselle		View Mode	argin 👻 🗙	
🖂 🖂 😥 Date	Rows 😫 - +		Group Measures	e.Month of Year	- 🗔 x
List 🕀 👬 D	Rows / Columns Filter		Report Page Description		
	Context		Show Visual Totals	eseller Sales mount	Reseller Gross Profit Margin
			Show Summary Columns	489,328.58\$	3.48%
Reports D			Show Summer Pour	1,538,408.31\$	4.48%
	Measures		Show Summary Rows	1,165,897.08\$	4.92%
	Reseller Sales Amount		Search Ctrl+F	844,721.00\$	3.27%
🕀 🛄 Fiscal	Reseller Gross Profit Margin			2,324,135.80\$	3.79%
🕀 🔐 Date			Visualization	1,702,944.54\$	4.10%
🕀 🚆 Date		1	Highlight	713,116.69\$	3.18%
🕀 👖 Date		-		1,900,788.93\$	3.70%
🕀 📑 Date		57	Formatting	1,455,280.41\$	4.02%
			Export to NRP	882,899.94\$	3.20%
🕀 🏭 Date			Export to Niti	2,269,116.71\$	3.85%
⊕ İS Delivery		2	Export to Excel	1,001,803.77\$	-60.41%
		53	Export to Open Office Calc	2,393,689.53\$	2.33%
			Export to open office cale	3,601,190.71\$	3.68%
🙂 💆 Destnat		74	Export to PDF	2,885,359.20\$	5.18%
Measures		1	Drint	1,802,154.21\$	4.31%
Interne.		0	Plint	3,053,816.33\$	4.41%
Interne			December	2,185,213.21\$	5.11%
Internet.			+ CY 2007 January	1,317,541.83\$	3.81%
Interne			February	2,384,846.59\$	3.22%

Columns 😫 Reseller Sales Amount 🔹 🗙 Reseller Gross Profit Margin 🔹 🗙						
Rows 📋 - + Date/Date.Calendar - 😡 × - Date/Date.Month of Year - 😡 ×						
Rows / Columns Filter Sorting						
Context Date/Date Reseller Sales						
	Date/Date. Calendar	Month of Year	Reseller Sales Amount	Reseller Gross Profit Margin		
	3.48%					
Measures		August	1,538,408.31\$	4.48%		
Reseller Sales Amount ×		September	1,165,897.08\$	4.92%		
Reseller Gross Profit Margin ×		October	844,721.00\$	3.27%		
		November	2,324,135.80\$	3.79%		
		December	1,702,944.54\$	4.10%		
	+ CY 2006	January	713,116.69\$	3.18%		
		February	1,900,788.93\$	3.70%		
		March	1,455,280.41\$	4.02%		
		April	882,899.94\$	3.20%		
		May	2,269,116.71\$	3.85%		
		June	1,001,803.77\$	-60.41%		
		July	2,393,689.53\$	2.33%		
		August	3,601,190.71\$	3.68%		
	8	September	2,885,359.20\$	5.18%		
		October	1,802,154.21\$	4.31%		
		November	3,053,816.33\$	4.41%		
		December	2,185,213.21\$	5.11%		
	+ CY 2007	January	1,317,541.83\$	3.81%		

As a result, the table will become as following:

Grouping of measures means to display the folders as captions. Later you can rename and format the folders. If you click the right mouse button on the header, you will have this:

Columns 😫 Reseller Sales Amount 🗝 × Reseller Gross Profit Margin 👻					
Rows 🗧 - + Date/Date.Calendar - 🕵 × - Date/Date.Month of Year - 🕵 ×					
Rows / Columns Filter Sorting					
Context	Date/Date. Calendar	Date/Date. Month of	Resel	Sorting +	iross
 Measures	+ CY 2005	July		Filter	2 A 00/
Reseller Sales Amount - ×		September October	1,165,89	7.08\$	Clear all formatting
Reselici Gross Profit • X		November	2,324,13	5.80\$	3.79%
	+ CY 2006	January	713,11	6.69\$	3.18%
		Hebruary March	1,900,78	8.93\$ 0.41\$	3.70% 4.02%
		April May	882,89 2,269,11	9.94\$ 6.71\$	3.20% 3.85%
		June	1,001,80	3.77\$ -6	60.41%

🟮 Formatting	x
Table Hierarchies Measures	
My Calculations KPI Exchange Rates Finance Internet Sales Reseller Sales Sales Quota Sales Summary Gross Profit Rolling ClientCalculate	Header Separators Image: Override name Reseller Image: Reseller Image: Override name Image: Override name Image: Override na
Reseller Sales Amount Growt	Font Text Color: * 0, 0, 0 • Back Color: * 240, 240, 240 • Font Size: * 8 * Font Name: * Verdana • Bold: * • Italic: * • Strikeout: * • Underline: * •
	OK Cancel

In the "Formatting" dialog bot we have two tabs – "Header" and "Separators":

The first tab allows to change the name and set up the format rules for the header of the measure. The tab "Separators" allows to set up the size and color for rows/columns separators and to define the thickness and color of the lines.

3.6.7 Description of a Page

For any report you can create a description using any text, used hierarchies and RTF formatting.

Let us look at the example:



In the "Table" menu select the "Report Page Description":



In the left part there is a list of hierarchies which are used on the report page. Using the mouse drag some hierarchies into the text:



Let us set up the height of the description field equal to 140 pixels, set up the font color and the font parameters:

Color	x	_ = X
Basic colors:		Back color:
		Font
Custom colom:		
	Hue: 160 Red: 150	
	Sat: 0 Green: 150	
Define Custom Colors >>	Color Lum: 141 Blue: 150	
OK Cancel	Add to Custom Colors	

🏮 Font	x	Back color:
Text Color:	• 0, 0, 0	Font
Font Size:	<u>12</u>	endar]>>
Font Name:	Tahoma 👻	raphy]>>
Bold:		uct Categories]>>
Italic:		
Strikeout:		
Underline:		
This forma given in Rt	at does not apply if the text is f format.	

In the "Report Page Description" window press «OK». As a result, the table will contain the page "Report Page Description" with the following text:



Let us look at the way to set up description using RTF. Let us insert into the description field the prepared RTF text:

Report Page Description		_ = X
Hierarchies	Height: 240	Back color: Font
Product	<pre>{\rtfl{\fonttbl{\f0\fswiss\fprq2\fcharset204 Verdana;}{\ll\b\fs22 Context:} par{\b\fs20 Date/Date.Calendar}: {\fs20 from 2005 to 2006}\ par {\ul\b\fs20 Measures}: {\fs20 Reseller Order Count, Reseller Sal Profit, Reseller Gross Profit Margin} par{ul\b\fs20 Reography}: {\fs20 Australia, Canada, France, German States} \par {\b\fs20 Product/Product Categories}: {\fs20 Accessories, Bik par {\ul\b\fs20 Sumpty Rows}: {\fs20 Hide}\par \par } </pre>	<pre>fprq2\fcharset0 Verdana;}} es Amount, Reseller Gross y, United Kingdom, United es, Clothing} umns}: {\fs20 Hide}\par {\b</pre>
	Preview	OK Cancel

The table will have the following description:

🟮 Business Analysis	🔋 Business Analysis Tool (Report Module) - http://127.0.0.1:8005/ 💶 🗖					×				
Application M	<u>Application M</u> odule <u>R</u> eports Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>p</u> ols <u>H</u> elp									
6 🕤 🖪 🖪	e 🛛 🖬 🖉 🖉	Description	🐹 📀 😒 🖉	100% 🔹 🌐	Table	- 🖪 🖓 🛛	Ф.			
	AW (Version 1 from 11/4/2014)									×
Settings	Dimensions Dimensions Customer Date Div Oblevery Date Department Department Department Department Decography Department Sales Orde Dread Organization Div Organization	Context: Date/Date.Calendar Measures: Reseller C Rows: Geography: Australia Product/Product Ca Other Parameters Empty Columns: Hide	: from 2005 to 20 rder Count, Resel I, Canada, France tegories: Access : of Page: e)06 ler Sales Amo , Germany, Ui ories, Bikes, (unt, Reseller G nited Kingdom, Jlothing	ross Profit, Re: United States	seller Gross Pro	fit Margin		
	Product Promotion	Report Page Description	Rows / Columns Eilte	r Sorting						41
	🕀 🙋 Reseller	Context	Geography	Product/Produc	Reseller Order	Reseller Sales	Reseller Gross	Reseller Gross		-1
	🗄 💆 Reseller Sales Order 🔽	< > Date/Date.Ca 🗔 ×		t Categories	100	27 642 71¢	8 050 46¢	22 /1%		-1
	Measures 📃 🖬		Canada	+ Bikes	251	5.309.005.26\$	-25.647.77\$	-0.48%		
	🕀 🕅 My Calculations 📃	Measures		+ Clothing	192	123,557.24\$	23,671.13\$	19.16%		
	🕀 💼 KPI	Reseller Order Count 🛛 👻 🗙	+ France	+ Accessories	15	5,096.23\$	1,412.53\$	27.72%		
4	🗄 🧰 Exchange Rates	Reseller Sales Amount 🔹 🗙		🕂 Bikes	28	654,238.20\$	-3,826.06\$	-0.58%		
	Finance	Receller Gross Profit * X		🕂 Clothing	22	27,843.63\$	6,461.22\$	23.21%		
	Internet Sales	Reseller Gross Profit	🕂 United Kingdom	+ Accessories	14	3,880.07\$	1,136.19\$	29.28%		
	Receller Sales	Reseller Gross Profit * X		🕂 Bikes	27	646,688.34\$	18,160.04\$	2.81%		
	Sales Quota			🕂 Clothing	24	24,160.21\$	5,788.02\$	23.96%		
	Cales Summary		+ United States	+ Accessories	362	76,351.70\$	25,014.55\$	32.76%		
	Grass Draft Dalling			+ Bikes	889	20,741,431.50\$	46,898.49\$	0.23%		
	Gross Profit Rolling			+ Clothing	648	344,402.42\$	64,281.83\$	18.66%		
	ClientCalcDate									
	Reseller Sales Amou									
	- Server E Min Date									
	Sets 📄 🖬									
	Calculated Sets Sets	Highlight								

If the RTF format is used, the formatting of the text and font is not applied. Tables with the description can be exported to Excel.

3.6.8 Displaying Totals

In order to explain what is "Visual Totals" let us build the following report. On the rows we will place the "Product Categories" hierarchy with the following selection:

(🛛 🍋 '🗌 All Products
	🕀 🅥 🦲 Accessories
	🕀 🍚 🔽 Bikes
	🗆 🕘 🔽 Clothing
	🕀 👿 🔄 Bib-Shorts
	🕀 🅥 🔽 Caps
	🕀 🥥 🔤 Gloves
	🕀 🌒 🔽 Jerseys
	🕀 🥥 🔤 Shorts
	🕀 🅥 🔤 Socks
	🕀 🥥 🗌 Tights
	🕀 🥥 🗌 Vests
	🕀 🍚 📃 Components

On the columns let us place the years from the "Date.Calendar" hierarchy. Inside the table – the "Reseller Order Quantity" measure. You will get the following report:

Columns 📴 - + Date/Date.Calendar - 🕵 × Reseller Order Quantity - ×						
Rows 😫 🗕 +	Rows 🗧 - + Product/Product Categories - 🕵 ×					
Rows / Columns Filter	Rows / Columns Filter Sorting					
Context	Product/Prod	+ CY 2005	+ CY 2006	CY 2007	+ CY 2008	
	uct Categories	Reseller Order Quantity	Reseller Order Quantity	Reseller Order Quantity	Reseller Order Quantity	
	🕂 Bikes	6,126	22,231	31,310	15,348	
	Clothing	2,132	16,927	31,623	13,815	
	: 🕂 Caps	520	1,853	2,677	1,071	
	👸 🕂 Jerseys	983	3,881	9,642	4,873	
Measures			^	^		
Reseller Order Quantity 👻 🗙						

3.6.8.1 Summary Rows and Columns

You can add summary rows and columns to the report. These rows and columns will show the SUM of the elements on the topmost visible level in the report.

In the "Table" menu select the items "Show Summary Columns" and/or "Show Summary Rows":

<u>T</u> ab	<mark>le T<u>o</u>ols <u>H</u>elp</mark>					
靊	Swap Rows and Columns					
\checkmark	Hide Empty Rows					
\checkmark	Hide Empty Columns					
	View Mode					
	Group Measures					
	Report Page Description					
	Show Visual Totals					
	Show Summary Columns					
	Show Summary Rows					
	Search Ctrive					
	Visualization					
1	Highlight					
8	Formatting					
2	Export to NRP					
2	Export to Excel					
馧	Export to Open Office Calc					
*	Export to PDF					
٨	Print					

Then you will get the following report:

Columns 🗄 - + Date/Date.Calendar - 😡 × Reseller Order Quantity - ×						
Rows 🗄 - +	Rows 🔚 - + Product/Product Categories - 🕵 ×					
Rows / Columns Filter Sorting						
Context	Product/Prod	+ CY 2005	+ CY 2006	+ CY 2007	+ CY 2008	
	uct Reseller Order Reseller Order Quantity Quantity Reseller Order Quantity Re					
	🕂 Bikes	6,126	22,231	31,310	15,348	
	Clothing	2,132	16,927	31,623	13,815	
	🗄 🕂 Caps	520	1,853	2,677	1,071	
	👸 🕂 Jerseys	983	3,881	9,642	4,873	
Total 8,258 39,158 62,933 29,163						
Reseller Order Quantity - ×						

As you may see, in the summary row there is a sum of "Bikes" and "Clothing".

3.6.8.2 Visual Totals

In the sample report (above) you can see that the row with "Clothing" there is a total of all kinds of clothing, but NOT just 2 selected elements ("Caps" and "Jerseys").

In order to see the totals for only visible elements, you have to select "Show Visual Totals" item in the "Table" menu:



If you switch on "Show Visual Totals", you will see this:

Product/Pro	+ CY 2005	+ CY 2006	+ CY 2007	+ CY 2008	
+ Bikes	6,126	22,231	31,310	15,348	
Clothing	1,503	5,734	12,319	5,944	
: 🕂 Caps	520	1,853	2,677	1,071	
👸 🕂 Jerseys	983	3,881	9,642	4,873	
Total	7,629	27,965	43,629	21,292	

Now in the row "Clothing" you may see summary values of ONLY two selected subitems – "Caps" and "Jerseys".

Columns 😫 - + Date/Date.Calendar - 🕵 ×					
Rows 🗄 - + Product/Product Categories - 🗔 ×					
Rows / Columns Filter Sorting					
Context	Product/Product	+ CY 2007	+ CY 2008		
	Accessories	590,242.59\$	568,844.58\$		
	🕂 Bike Racks	134,868.47\$	102,227.69\$		
	🕂 Bike Stands	18,921.00\$	20,670.00\$		
	🕂 Bottles an	27,761.60\$	36,513.19\$		
	🕂 Cleaners	9,777.94\$	8,629.03\$		
	🕂 Fenders	19,408.34\$	27,211.24\$		
Measures	Helmets	206,027.20\$	183,504.58\$		
	.쁜 🕂 Hydration	58,303.91\$	47,522.51\$		
Sales Amount 👻 🗙	ုပ္တို 🕂 Locks	6,140.52\$			
	🦉 🕂 Pumps	5,145.43\$			
	💡 🕂 Tires and T	103,888.18\$	142,566.34\$		
	🕂 Bikes	34,910,877.69\$	22,561,568.03\$		
	🕂 Clothing	1,010,112.16\$	587,537.80\$		
	🕂 Components	5,482,497.29\$	2,091,011.92\$		
Highlight					

Here is one more example of the visual totals:

Let us hide one of the elements from the group "Accessories":

Product/Produ	ict	+ CY 2007	+ C	Y 2008	
Accessories	Accessories 590,242.59\$			568,844.58\$	
🕂 Bike Rad	:ks	134,868.47\$		102,227.69\$	
🕂 Bike Sta	nds	18,921.00\$		20,670.00\$	
🕂 Bottles a	n	27,761.60\$		36,513.19\$	
Cleaners	;	9,777.94\$		8,629.03\$	
+ Fenders		19,408.34\$		27,211.24\$	
v Helmets		206 027 20#		183,504.58\$	
.≝ (+ Hyd	Dri	П Бу	•	47,522.51\$	
8 + Loc 9 + Pur	Dri	Drill by on New Page			
🗧 🕂 Tire	Dri	Drill Up		142,566.34\$	
🕂 Bikes	Deil	Deill Derre		561,568.03\$	
🕂 Clothir		Drill Down		587,537.80\$	
+ Comp	Hic	le Item		091,011.92\$]
	Kee	ep Only This 🥄			
	Hid	le Siblings			
	Sho	ow All Children			
	~				

As a result, the report will look like this:

C CV 2007	C CY 2008
HCT 2007	+ CT 2008
590,242.59\$	568,844.58\$
134,868.47\$	102,227.69\$
18,921.00\$	20,670.00\$
27,761.60\$	36,513.19\$
9,777.94\$	8,629.03\$
19,408.34\$	27,211.24\$
58,303.91\$	47,522.51\$
6,140.52\$	
5,145.43\$	
103,888.18\$	142,566.34\$
34,910,877.69\$	22,561,568.03\$
1,010,112.16\$	587,537.80\$
5,482,497.29\$	2,091,011.92\$
	+ CY 2007 590,242.59\$ 134,868.47\$ 18,921.00\$ 27,761.60\$ 9,777.94\$ 19,408.34\$ 58,303.91\$ 6,140.52\$ 5,145.43\$ 103,888.18\$ 34,910,877.69\$ 1,010,112.16\$ 5,482,497.29\$

The sum of this group of goods remains unchanged.

We'll use the visual totals to display the real summary of the selected goods:



Now the report will look like this:

Product/Product	+ CY 2007	+ CY 2008
Accessories	384,215.39\$	385,340.00\$
🕂 Bike Racks	134,868.47\$	102,227.69\$
🕂 Bike Stands	18,921.00\$	20,670.00\$
🕂 Bottles and	27,761.60\$	36,513.19\$
+ Cleaners	9,777.94\$	8,629.03\$
+ Fenders	19,408.34\$	27,211.24\$
🖞 🕂 Hydration P	58,303.91\$	47,522.51\$
မ္မိ 🕂 Locks	6,140.52\$	
🦉 🕂 Pumps	5,145.43\$	
🗧 🕂 Tires and Tu	103,888.18\$	142,566.34\$
🕂 Bikes	34,910,877.69\$	22,561,568.03\$
🕂 Clothing	1,010,112.16\$	587,537.80\$
+ Components	5,482,497.29\$	2,091,011.92\$

3.6.9 Operation "Show By" of the Context Menu

In the context menu there is an operation "Show By". Let us look at the example. Assume you have a report of the following structure:

Columns 😫 🗕 + D	ate/Date.Calendar 👻	× 🔊			
Rows 📋 - + Product/Product Categories - 😡 ×					
Rows / Columns Filter S	orting				
Context	Product/Product	+ CY 2007	+ CY 2008		
	+ Mountain Bikes	8,854,263.03\$	3,902,246.74\$		
	+ Road Bikes	11,294,381.37\$	4,448,636.90\$		
	+ Touring Bikes	5,403,130.67\$	5,048,359.55\$		
Measures					
Reseller Sales Amount X					
Reselici Suica Anounce A					
Highlight					
1 😼 Show by	1 🔏 Table 10	Table 1 (test)	🔏 TreeMap 1	SC ()	Search 👻

Let us do the "Show By" operation in order to look the sum of sales for a specific product (for example, for "Road Bikes") by all countries.

Columns 🔋 - + Date/Date.Calendar - 🕵 ×						
Rows 😫 🗕 +	Rows 🗄 - + Product/Product Categories - 😡 ×					
Rows / Columns Filter	Rows / Columns Filter Sorting					
Context	Product/Product	+ CY 2007 + CY 20	08			
	+ Mountain Bikes	8,854,263.03\$ 3,902,	246.74\$			
	+ Road Bikes	Drill by	636 90¢			
		Unit by	Account	1		
		Drill by on New Page 🕨	Customer	•		
		Drill Up	Date	•		
		Drill Down	Delivery Date	•		
Measures		Hide Item	Department	•		
Reseller Sales Amount ×		Keep Only This	Destination Currency	•		
		Hide Siblings	Employee			
		Show All Children	Geography	•	Geography	
		Show Level	Internet Sales Order Details	• 듣	Country	
	Ø	Member Selector	Organization	•	State-Province	
		Actions	Product		City	
	11	Sorting +	Promotion		Postal Code	
		Filter	Reseller	•	City	
	Y=		Reseller Sales Order Details	•	Country	
	8	Formatting •	Sales Channel	•	Postal Code	
			Sales Reason	•	State-Province	

Select menu items Show $By \rightarrow Geography \rightarrow Country:$

As a result we will have the following report:

Columns 🗄 - + Date/Date.Calendar - 😡 ×					
Rows 😫 🗕 +	Geography 👻 🕵 🗙				
Rows / Columns Filter	Sorting				
Context	Geography	+ CY 2007	+ CY 2008		
S Product/Prod S X	🕂 Australia	1,466.01\$	1,466.01\$		
	🕂 Canada	2,075,667.15\$	657,851.93\$		
	+ France	643,984.66\$	311,419.73\$		
	🕂 Germany	82,958.10\$	91,575.68\$		
	🕂 United Kingdom	651,360.92\$	343,323.74\$		
	United States	7,838,944.52\$	3,042,999.81\$		
Measures					
Reseller Sales Amount X					
Highlight					
Show by 🔢 Table 1	🔹 Table 10	Table 1 (test)	🧕 TreeMap 1 🛛 🙀	Sc 👝	Search

As we can see, we have a report of sales by countries. The "Product" hierarchy has come to the context. If you show the member selector for the context, you will see that the only one item is selected there – the one for which you've made the operation "Show By":

🛛 💫 🔚 All Products
O Accessories
🖃 🍑 🥅 Bikes
🕀 🍚 🦳 Mountain Bikes
🕀 🍚 🔽 Road Bikes
🕀 🌒 🔚 Touring Bikes
🕀 🍑 🦳 Clothing
🕀 🍑 📃 Components

Therefore, we are watching sales only for "Road bikes".

In a similar way "Show by" is working for table cells. If you perform "Show by" on the cell where "Road Bikes" and "CY 2007" intersect, you will get a report which displays sales in all countries for Road Bikes in the calendar year 2007:

Rows 🗄 - + Product/Product C	tegories + 🗔 🗙				Columns 📙 - + Date/Date.Calendar - 😡 ×				
Rows 🗄 - + Product/Product Categories - 🕵 ×									
Rows / Columns Filter Sorting									
Context Product/Product + Mountain Bil + Road Bikes + Touring Bik	Ontext Product/Product CY 2007 CY 2008 								
Measures Reseller Sales Amount ×	5,403,130.67 5,403,130.67	Drill by on New Page Drill Through Actions Search Image: Search Image: Highlight Formatting Export to NRP Export to Excel Export to Open Office Calc Export to PDF Print	 . .<	Account Customer Date Delivery Date Department Destination Currency Employee Geography Internet Sales Order Details Organization Product Promotion Reseller Reseller Sales Order Details Sales Channel		Geography Country State-Province City Postal Code City Country Postal Code			

Columns 😫 Reseller Sales Amount ×					
Rows 📋 - + Geography - 🗔 ×					
Rows / Columns Filter	Sorting				
Context	Geography	Reseller Sales Amount			
< > Date/Date.Ca Q X	+ Australia 1,466.01				
< > Product/Prod 🐚 ×	🕂 Canada	2,075,667.15\$			
	+ France	643,984.66\$			
	🕂 Germany	82,958.10\$			
	🕂 United Kingdom	651,360.92\$			
	🕂 United States	7,838,944.52\$			
Measures					
Reseller Sales Amount ×					

As you may see, the context has 2 items – "Road Bikes" and "CY 2007":

3.7 Data Refreshing on the Page

Each page has an important option – «Automatically change data when the structure is changed». If this option is on, after each change of the page structure the new data will be displayed. If this option is off, you can change the structure of the page first (data will not be automatically refreshed), and then you can manually refresh the data. During the time you make modifications the requests will not be automatically sent to the server.

This option is switched on/off by using this button:

😵 Report Designer - Adventure Works (Version 1)	= x
Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols	
🗄 🔾 💬 💾 🔀 🔀 🕼 🕼 🕼 🕼 😥 😓 🛛 🎛 🛛 Description 🛛 🕐 🍇 🏠 📚 🚺 100% 🔹 🏥 🛛 Table 👥 🖓 🖏 💷	
Dimensions 🔯 🖄 🕃 Columns 🖹 - + Date/Date.Calendar - 🗔 Automatically refresh data when the structure is	
⊕ 1 ≥ Date B ≥ Customer Rows - + Product/Product Categories	



Let's assume we have the following page:
and upper mentioned option is turned off. Let's change the page structure by dragging more dimensions and measures into the designers:

🟮 Report Designer - Adventu	ıre Works (Version 1)					= x
Report <u>P</u> age <u>V</u> iew <u>D</u>	ata <u>T</u> able T <u>o</u> ol	ls					
i 🔾 🕞 💾 🔣 🚱 i 🚱	6 🕼 🔊	🖸 💥 Descript	ion 🖒 🖒 🏷 🗘	🕽 🍇 🛛 100% 🕞 🌐	Table	- 💫 🖑 I)	
Dimensions 🔯 🔛 🔛	Columns	- + Date/Date	Calendar x 🗔 x –	+ Geography - 🔂 X			
🕀 💓 Account		· bute/bute		t ocography - 😋 A			
🕀 💓 Customer	Rows	- + Product/Pr	oduct Categories 👻 🕻	🛛 × – 🔸 Reseller/Reselle	er Type 👻 😡 🗙		
⊕ Date ↓ √ ¹	Rows / Columns	Filter Sorting					
⊕ Department ⊕	Context	Product/	Prod CY 2007	CY 2008			
🗄 💓 Destination Currency		Accesso	ries 296,532	88\$ 161,794.33\$			
🕀 💓 Employee		Bikes	25,551,775	07\$ 13,399,243.18\$			
🖃 💓 Geography		Compon	8/1,864. ents 5 482 497	195 386,013.165 295 2.091.011.925			
🕀 🏥 Geography		Compon	5,452,457	239 2,031,011.529			
City							
🕀 🏭 Country							
Postal Code State Province							
Internet Sales Orde							
⊕ 1 Organization	Measures						
🕀 💓 Product	Reseller Sales Amoun	nt ×					
🗄 💓 Promotion							
🖃 💓 Reseller							
🕀 🏭 Reseller Bank							
🕀 🏭 Reseller Order F	:						
🗄 👬 Reseller Order							
Reseller Type							
,2 (All)							
Reseller							
Measures 📄 💿							
Calculations							
🗄 😜 KPI							
Exchange Rates							
Findrice Internet Sales							
Reseller Sales							
🗄 🗋 Sales Ouota							
🕀 🖻 Sales Summarv 📃							
Sets • •							
🕀 🔂 Sets	Highlight						
							_
	Auto Refresh	i 🕹 Table 1	Table 10	e 1 (test) 📗 鳽 TreeMap 1	Scatter 1	🚯 Dashboard 1	Search •

Note: after changing page structure you see old data. This happens because the option is off. If we press «Refresh Data» now:

📚 Report Designer - Adventure Works (Version 1)	= x
Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>T</u> able T <u>o</u> ols	
😋 〇 💾 📴 📴 ⑤ 💿 😭 ⑥ 🛐 🎛 Description 🕑 🔍 � 🌣 100% 🔹 🌐 Table 💿 🚽 👫 🖓 🕮	
Dimensions 2 2 2 2 2 Columns E - + Date/Date.Calenda Refresh data (F5) graphy - 🔍 ×	
🐵 🙋 Customer 🛛 🛛 Rows 😫 🚽 + Product/Product Categories 🗸 🕵 x 🚽 + Reseller/Reseller Type 🗵 🗔 x	
B S Date	

🔹 Report Designer - Adventure Works (Version 1) 🗖 💌								
Report Page View Data Table Tools								
		23 AR Description			e *	i in the second se		
Dimensions 🙋 🔛 👔	Columns 🧮	- + Date/Date.Calend	ar - 🕵 × – + Geograp	hy - 😡 x				
🗄 💓 Account								-1
🕀 💓 Customer	Rows 🔚	 + Product/Product C 	ategories - 😡 × – + R	leseller/Reseller Type	e 🔻 🞑 🗙			
🕀 💽 Date	Down / Columna	Filter Sorting						_
🗄 💽 Delivery Date	Rows / Columns	The Solung	I					
🕀 💓 Department	Context	Product/Product	Reseller/Reseller Type	+ CY 2007	Consider 1		Comment	-
Destination Currency			Conscipity Bike Shop	+ Australia	+ Canada	+ France	+ Germany	+0
🕀 🙋 Employee		Accessories	Value Added Reseller	4,009.395	0,510.44\$	4,950.07\$	2,397.31\$	<u> </u>
🖃 💓 Geography			Warehouse	65,99\$	36,904,36\$	20,199,66\$	14.751.74\$	-
🕀 🏥 Geography		(∓) Bikes	+ Specialty Bike Shop	138,458.60\$	296,077.35\$	170,628.06\$	68,510.43\$	
🕀 👖 City			+ Value Added Reseller	321,025.36\$	1,790,549.89\$	402,857.82\$	260,016.12\$; ;
🕀 👯 Country			🕂 Warehouse	221,162.00\$	2,331,038.47\$	1,221,082.88\$	491,987.09\$; ;
🕀 👖 Postal Code		🕂 Clothing	🕂 Specialty Bike Shop	7,946.81\$	31,718.36\$	12,119.86\$	4,604.46\$	5
🗄 🧱 State-Province			H Value Added Reseller	16,637.50\$	42,392.92\$	7,772.35\$	9,569.84\$	5
🗄 过 Internet Sales Orde			H Warehouse	1,538.17\$	103,782.11\$	46,692.27\$	29,439.24\$	5
🕀 过 Organization	Measures	+ Components	+ Specialty Bike Shop	10,534.18\$	20,078.34\$	11,243.36\$	11,419.36\$	5
🕀 💓 Product	Reseller Sales Amount	t ×	+ Value Added Keseller	50,485.49\$	205,970.68\$	67,163.83\$	52,629.50\$	
🕀 😥 Promotion			+ warehouse	64,055.06\$	//1,566.6/\$	407,603.63\$	150,060.37\$	<u> </u>
🗆 💓 Reseller								
🕀 👬 Reseller Bank								
🕀 🏭 Reseller Order F								
🕀 🏭 Reseller Order								
🖃 🏭 Reseller Type								
Σ (All)								
 Business Type 								
Reseller 🚽								
Measures 📃 🛨								
Calculations								
🕀 🛃 KPI								
🗄 🧰 Exchange Rates								
🕀 🧰 Finance 📃								
🕀 📄 Internet Sales								
🕀 🚞 Reseller Sales								
🗄 🚞 Sales Quota 🔤								
🕀 🗋 Sales Summarv 🛛 🗖								
Sets 📃 🖬								
🕀 🔂 Sets	Highlight							
	riigriight			▲				►
	auto Refresh	🔹 Table 1 🛛 🔹 Table	10 🛛 🔹 Table 1 (test)	🚦 TreeMap 1 🔡	Scatter 1 🚺 🚯 🛛	Dashboard 1 🦂	Search	*

the data will be refreshed according to the new structure:

Do not forget to switch on this option for further reading.

There is also a possibility to «Refresh data on all pages» at once. It will take time dependently on the number and complexity of pages.

3.8 Charting

A chart is a part of a report. It may be not displayed, displayed alone or with a table. The view mode of a chart can be changed on the toolbar or in the "Table / View Mode" menu:



In the lower left corner you may see the chart parameters:

- **Layout**: influences where the chart will be displayed below the table or to the right of it.
- Argument. The chart displays the data which are in the table. On the screenshot above you may see "Agrument = Columns". It means that the columns of the table will be placed on the X axis. If we change the argument on "Rows", we would see this:



• **Type**. This parameter sets up the type of the chart. Now you see bars, which can be changed onto lines:





3D chart:



and other types of chart. We propose you to make some experiments with the type of a chart on your own.

- **Properties**. Among the properties are: "Legend" (you see it in the top right corner), "Rotate by 90°" and "Labels" (labels are the numeric labels which are displayed over bars or lines).
- Settings.

3.8.1 Chart Settings

If you press the button "Settings" in the bottom of the page, you will see the following form:

📚 Chart Settings	x
Chart Settings	▲utomatic type and argument Argument: or rows or columns Layout: or bottom Type: or Bar Maximum number of data items: 1000 \$ P Rotate by 90°
Automatic Preview	OK Cancel

3.8.1.1 Maximum Number of Data Items

On the "Data" tab you may set the maximum number of items which can be displayed in the chart. Let us create the following example: put all the cities of the hierarchy "Geography":

😝 Member Selector: Geography				
Selection Filter Sorting Options				
□ ;Σ [(All)				
🖂 🖌 🔂 Country				
🖃 🚥 📃 State-Province				
🕀 🚣 🔽 City				

On the columns we will display years, the measure "Reseller Sales Amount" will be displayed in the table. Switch on the chart:

Columns 😫 🗕 +	lumns 🗄 - + Date/Date.Calendar - 🗔 ×						
Rows 😫 - +	E - + Geography - 🗔 ×						
Rows / Columns Filter	Sorting						
Context	Geography (+ CY 2005	+ CY 2006	+ CY 2007	+ CY 2008		
	Dorval Hull		14 005 70¢	E 145 79¢	552.554	·	
	Montreal	77.080.71¢	283 842 22¢	512 131 10¢	256 730 45¢		
	+ Outremont	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	65.60\$	648,91\$	200,700.400		
	+ Pnot-Rou	68,193,05\$	133,094,06\$	145,919,76\$	45,289,00\$		
	+ Quebec		10,846.33\$	13,625.39\$	8,594.08\$		
	+ Sainte-Foy			49,636.26\$	52,594.15\$		
Measures	+ Sillery	27,172.32\$	245,156.95\$	186,043.91\$			
Reseller Sales Amount 👻 🗙	+ Ville De'a		99,256.78\$	161,102.88\$	57,817.93\$		
	+ Morangis			90,450.12\$	57,513.68\$		
	+ Verrieres		818.96\$	3,313.57\$	323.99\$		
	Colomiers			215,682.19\$	175,358.40\$		
	+ Colombes		64,279.65\$	52,858.36\$	38,492.25\$		
	+ Courbevoie			216,425.00\$	220,496.66\$		
	+ Paris La		2,626.86\$	8,275.78\$	750.35\$		
	FalSávrac			11 015 026	0 EUD DO41		
Chart Properties			То	o much da	ta: 1163 e	elements.	
🔨 Spline 🔹				<u>Draw chart (</u> i	<u>t can take som</u>	<u>ne time)</u>	
bottom 👻				Chang	e chart setting	<u>S</u>	
Aroument:							
orows O columns							
Vegend labels							
🔲 rotate by 90°							
Settings							

As you may see, there are 1163 elements on the chart. This is a big amount – bigger than the allowed number in the settings. In order to change the settings, press the button "Settings" and change the setting onto 1200:

📚 Chart Settings		x
Data \$ Image: Colors Image: Colors Image: Colors Image	 Automatic type and argument Argument: orows ocolumns Layout: bottom o Type: Spline Maximum number of data items: 1200 Columna Rotate by 90° 	
Automatic Preview		OK Cancel



After pressing «OK» you will see the following:

Pay attention to the fact that the chart can be painted for a long time in the case if there is a huge number of elements on the chart. In order to avoid waiting you can set up maximum amount of elements, so that the chart will be painted only when the number of elements is less than the maximum amount.

As you may see, when «Too much data» message is displayed, there are two available options: "Draw Chart" and "Change chart settings":

Too much data: 1163 elements.

Draw chart (it can take some time)

Change chart settings

If you press the link "Draw chart", the chart will be drawn but the settings will not change. The chart will be visible until you change the structure of the report.

The link "Change chart settings" does the same as the button "Settings" in the bottom left corner of the page – it will open the form for changing the chart settings.

3.8.1.2 Scrolling

Sometimes we have a situation when the X axis contains too much elements. As a result, the chart becomes unreadable:



In order to correct the situation open the settings dialog:

Chart Properties	600,000.00
🔣 Line 🔻	400,000.00
Argument:	200,000.00
© rows () columns	0.00 -
🛛 legend 📄 labels 🍡	2 2 SONO
🗆 rotate by 90°	1
Settings	5 °5

On the tab "X-axis" switch on the scrolling on the X axis and set the number of elements equal to 20:

🧐 Chart Settings		x
Data ☑ General ☑ Series ☑ Colors	 Enable scrolling on X axis Automatic number of visible items Number of visible items: 20 \$ Axis labels should not cover more than 33 \$ % of the chart height 	
Appearance	Font Orientation	
Jitles	Text Color:	
E Legend	Font Size: 8 ‡	
Jabels	Font Name:	
🔜 X-axis	Bold: 45 Cegrees	
Measures	Italic:	
Y-axis	Strikeout:	
	Underline:	
V Automatic Preview	OK Cancel	

After this action, the chart will become much more readable and you will be able to scroll it using the scrolling on the X axis:



3.8.1.3 Minimal and Maximal Values for a Chart

There are several ways how we can set up the axis range on the Y axis:

- Full;
- From minimum to maximum;
- From some [Value1] to maximum;
- From minimum to [Value2];
- From [Value1] to [Value2].

3.8.1.4 Coloring Series

Let us look at the example of setting the colors for chart series. Let us assume we have the following table with a chart:



Let us color the whole category Acessories and all the subcategories into green, and let us color "Closing" into yellow. Click the right mouse button on the series or on the item in the legend:

	5P	Expand
		Drill by Drill by on New Page
		Drill Up
		Drill Down
		Hide Item
		Keep Only This
		Hide Siblings
		Show All Children
Product/Product Categories/Clothing		Set Color For
Product/Product Categories/Clothing and descendants		Actions
		For All Hierarchies Show
		For Product/Product Categories Show
		For Geography/Geography Show
		Hide Series
	2	Export to NRP
	8	Export to Excel
	1	Export to PDF
	2	Export to PNG
	گ	Print
		Settings
/		
	/	
\ , , , , , , , , , , , , , , , , , , ,		

In this window do the following:

🟮 Series Color 🛛 🗕 🗖 🗙	
Color	
Apply to descendants	
🕀 🄍 Clothing	
🕀 🎱 Components	
🕀 🚥 Subcategory	
🕀 🚣 Product	
🕀 👬 Product Model Lines	
🕀 👬 Stock Level	
🕀 🎲 Product	
🕀 🚆 Category	
🗄 📑 Class 📃	
🗄 🚆 Color	Color
🗄 🚆 Days to Manufacture	Basic colors:
🕀 📑 Dealer Price	
🗄 📑 End Date	
🗄 📑 Large Photo	
🗄 📑 List Price	
🕀 🦉 Model Name	
🗄 🚆 Product Line	Custom colors:
🕀 🚆 Reorder Point	
🕀 🏭 Safetv Stock Level 🔤	Hue: 140 Hed: 1255
	Define Custom Colors >> Color Lum: [120 Blue: [0
OK Cancel	OK Cancel Add to Custom Colors



As a result we will get the following chart:

Let us move one level below:



Each category and all elements below it now have its own color which can be changed.

Chart Settings General Appearance Legend Labels X Axis Measures Y Axes Colors GApply series colors rules Product/Product Categories/Bikes Product/Product Categories/Touring Bikes Product/Product Categories/MountainBikes Product/Product Categories/MountainBikes	Product/Product Cat + CY 2006 + CY 2007 + CY 2008 Bikes 654,238.20\$ 1,794,568.76\$ 1,111,858.69\$ + Mountain Bikes 216,198.71\$ 551,831.91\$ 244,459.36\$ + Road Bikes 438,039.49\$ 643,984.66\$ 311,419.73\$ - Touring Bikes 598,752.19\$ 555,979.59\$
Add Modify Up Down Delete	1,800,000.00 1,500,000.00 1,200,000.00 900,000.00
OK Cancel Argument: Orows Scolumns	600,000.00 300,000.00 0.00
viewend labels voice by 90° Settings	The The The

You can also set the color for every element of a group:

3.8.2 Settings for Displaying of Measures

Let us look at how several measures are displayed on a chart on the following example of a report:

On the rows we have all months of the years 2006 and 2007 selected:

😑 Σ) 🗌 All Periods
🕀 🎱 📃 CY 2005
🖃 🎱 📃 CY 2006
😑 🚥 🔄 Calendar Semester
😑 🚣 📃 Calendar Quarter
🕀 🗰 🔽 Month
🖃 🎱 📃 CY 2007
🖃 🚥 📃 Calendar Semester
😑 🚣 📃 Calendar Quarter
🕀 🗰 🔽 Month
🗄 🎱 📃 CY 2008
🗄 🎱 📃 CY 2010

On the columns there are "Sales Amount" and "Reseller Sales Amount":

Columns Sales Amount + × Reseller Sales Amount + ×

In the context we have "Road Bikes" selected:

🗆 🕹 🔚 All Products
🕀 🍑 🦳 Accessories
😑 🍑 🦳 Bikes
🕀 🍚 🦳 Mountain Bikes
🕀 🍚 🔽 Road Bikes
🕀 🌒 🔚 Touring Bikes
🕀 🍑 🦲 Clothing
🕀 🍚 🦲 Components



The report shows us the sales amount of road bikes by month of the years 2006 and 2007:

But in case we have 2 measures displayed on the chart it is difficult to analyze how the reseller sales amount change. It would be nice if the summary sales are displayed by line over the bars.

Let us change the way how the "Sales Amount" is displayed. Press the button on the "Sales Amount" control which opens the settings for this measure, as shown on the picture:

Context	Date/Date.Calendar
< > Product/Prod 😡 ×	+ January 2006
	+ February 2006
	+ March 2006
	+ April 2006
	+ May 2006
	+ June 2006
	+ July 2006
	+August 2006
	2,200,000.00
Measures	2,000,000.00
Sales Amount	1 800 000.00
Chart)00.00
Display:	00.00
On Pane 1	·)00.00
🕅 Override type	000.00
Bar	00.00
	100.00 -
Apply Cano	el 100.00

Check the box "Override type" and select the line type:

Chart	000.00
Display:	000.00
On Pane 1 🔹	000.00
Override type	00.00
📊 Bar 🔹	00.00
2D	<u>^</u>
	X 🖸 🔁 🖬
	Line



Press the button "Apply". The chart now looks like this:

You can also display charts for different measures on different panes. In the same settings dialog for "Sales Amount" set the parameter "Display" equal to "On Pane 2":





Press the button "Apply". You will get the following chart:

You can display each measure on one of four available panes, or you can also select «Don't show» option in order to avoid displaying a measure on the chart.

Let us look at the chart where one of the measures displays the percentage growth. Let us select all the months of the year 2007 on rows:

Member Selector: Date/Date.Calendar	x
Selection Filter Sorting Options	
🔘 Date Range 🛛 💿 Tree	
😑 Σ) 🗌 All Periods	
🕀 🎱 🗌 CY 2005	
🗄 🎱 🗌 CY 2006	
🖃 🎱 🗌 CY 2007	
🖃 🚥 📃 Calendar Semester	
🖃 🚣 📃 Calendar Quarter	
🕀 📁 🗹 Month	
🕀 🎱 🗌 CY 2008	
🕀 🎱 📃 CY 2010	

Put the measures "Reseller Sales Amount" and "Reseller Sales Amount Growth%" onto columns:



Columns 😫 Resell	eseller Sales Amount 👻 Reseller Sales Amount Growth% 👻			
Rows 😫 🗕 +	Date/Date.Calendar 👻 🤇	🗼 🗙		
Rows / Columns Filter	Sorting			
Context	Date/Date.Calendar A	Reseller Sales Amount	Reseller Sales Amount Grow	
C > FloducyFlod 😋 🛪	🕂 January 2007	672,148.88\$	-27.83%	
	+ February 2007	1,345,479.74\$	100.18%	
	+ March 2007	778,022.75\$	-42.18%	
	+ April 2007	858,138.75\$	10.30%	
	+ May 2007	1,518,931.08\$	77.00%	
Measures	+ June 2007	894,227.02\$	-41.13%	
incusures	🕂 July 2007	811,626.93\$	-9.24%	
Reseller Sales Amount 👻 🗙	+ August 2007	1,107,136.01\$	36.41%	
Reseller Sales Amoun 👻 🗙	🕂 September 2007	877,274.87\$	-20.76%	
	+ October 2007	660,499.13\$	-24.71%	
	+ November 2007	972,847.11\$	47.29%	
	🕂 December 2007	798,049.10\$	-17.97%	
	Pane 1	1: Reseller Sa	les Amount	
Highlight	1,000,000.00			
Chart Properties	Pane	2: Reseller Sa	les Amount Gr	owth%
Spline 🔹	100.00 % 50.00 %			
bottom	-50.00 % -			
Argument:	anua)	A SPILIAR ANATCH SOD	5011 2005 2005 20	tuy soos soo to the to the total and total
rotate by 90°		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-	13 TON TON TON
Settings	Reseller Sales Amo	ount 🌂 Reseller	Sales Amount Grow	th%

Put "Road Bikes" into context:

Let us show how to make a separate axis for the measure "Reseller Sales Amount Growth %":

🏮 Chart Settings			x
Data 🌣	Select Measure:	Reseller Sales Amount	
📈 Series	Display:	Reseller Sales Amount Growth%	
Olors	Туре:	🗖 Override	
Appearance 🌣	Labels:	⊚ use default © always show	
E Legend	Y Axis:	🔿 always hide Default 🔹 Axis Settings	
X-axis			
ii Y-axis			

😂 Chart Settings		×
Data 🌣	Select Measure:	Reseller Sales Amount Growth%
Series	Display: Type:	On Pane 1 Don't show
Appearance 🌣	Labels:	On Pane 1 On Pane 2 On Pane 3 On Pane 4
Titles Legend	Y Axis:	Default (Reseller Sales A Axis Settings
X-axis		
Y-axis		
🟮 Chart Settings		×
Data 🌣	Select Measure:	Reseller Sales Amount Growth%
Series	Display:	On Pane 1
Colors	Type:	🖸 Override
Appearance $$	Labels:	 use default always show always hide
LabelsX-axis	Y Axis:	Default (Reseller Sales A O Axis Settings Default (Reseller Sales Amount) Separate axis
Measures		

Put it onto pane 1 (the same pane where the measure "Reseller Sales Amount" is):

Now let us set up the axis:

🧿 Settings of axis	a "Axis 1 (Reseller Sales	Amount Grow	th%)" ×
Display Range: Ful			•
Display:	Left side	💽 🛛 🛛 Sh	ow grid lines
Font	Don't show		Orientation
Text Color:	Right side	-	
Font Size:		8 ‡	.*
Font Name:	Tahoma	-	. Text
Bold:			
Italic:			*··•
Strikeout:			0 ^ Degrees
Underline:			
			OK Cancel

The chart looks like this:

Columns 😫 Reselle	Reseller Sales Amount • × Reseller Sales Amount Growth% • ×			
Rows 🗄 - + Date/Date.Calendar - 🕵 ×				
Rows / Columns Filter	Sorting			
Context	Date/Date.Calendar Reseller Sales Amount Grow			
	+ January 2007 672,148.88\$ -27.83%			
	February 2007 1,345,479.74\$ 100.18%			
	+ March 2007 778,022.75\$ -42.18%			
	+ April 2007 858,138.75\$ 10.30%			
	+ May 2007 1,518,931.08\$ 77.00%			
Measures	+ June 2007 894,227.02\$ -41.13%			
	+ July 2007 811,626.93\$ -9.24%			
Reseller Sales Amount 👻 🗙	+ August 2007 1,107,136.01\$ 36.41%			
Reseller Sales Amoun 👻 🗙	+ September 2007 877,274.87\$ -20.76%			
	+ October 2007 660,499.13\$ -24.71%			
	November 2007 972,847.11\$ 47.29%			
	December 2007 798,049.10\$ -17.97%			
	90.00 %			
Highlight	30.00 % - 900,000.00			
Chart Properties	0.00 % - 600,000.00			
Spline T	-30.00 % - 300,000.00			
Dottom 🔻	-60.00 % -			
Argument:				
💿 rows 🛛 🔊 columns	The state is the state of the s			
Vegend labels				
Settings	Reseller Sales Amount 🔍 Reseller Sales Amount Growth%			
J. Jecungs				

We have a chart with two measures at once, each measure has its own axis.

3.8.3 Additional Possibilities of Charts

Since the bars (points, sectors, etc.) of the chart display values of the table, you can use the operations like "Drill through" and "Show by" on them. These operations are available in the context menu:



Also you can print the chart from the context menu or save it as an image in PNG format.

Three is a possibility to choose which levels to display on the chart. Let us look at the example:

Columns 😫 🗕 +	E - + Product/Product Categories - Q × Order Quantity - ×					
Rows 📒 🗕 +	Rows 😑 - + Date/Date.Calendar - 🕵 ×					
Rows / Columns Filter	Sorting					
Context		+ Accessories	🕂 Bikes	+ Clothing	🕂 Components 🛛	
	Date/Date.Calendar	Order Quantity	Order Quantity	Order Quantity	Order Quantity	
	- CY 2001	1,003	7,139	2,132	1,574	^
	H2 CY 2001	1,003	7,139	2,132	1,574	
	N Q3 CY 2001	423	2,842	931	637	
	G ≌ 💽 Q4 CY 2001	580	4,297	1,201	937	
Measures	CY 2002	5,207	24,908	16,927	13,876	
Order Quantity - ×	H1 CY 2002	822	8,143	1,952	1,331	
	+ Q1 CY 2002	245	3,808	734	397	
		577	4,335	1,218	934	
		4,385	16,/65	14,975	12,545	
		2,625	9,017	0,0/0	7,828	
	CY 2003	28 161	37.020	35 331	4,717	-
		20,101	57,020		24,103	
	40,000 - 35,000 - 30,000 - 25,000 - 20,000 -	\wedge		A	A	
Highlight	15,000				N	
Chart Properties	10,000					
Spline 🔻	5,000				¥	
bottom 👻	o 1 🖛 🐳					
Argument:	1					
💿 rows 🛛 🔘 columns	0,40	0,0,4,0	, 0, 1, 0, 0	. 0. 4, 0. 0	5 15 0 0 0	1 4, 0, 0, 4, 0,
🔽 legend 🔲 labels	10, 7		ૼૡૺૢૻૼૡૼૻ૾ૼૡૺૻૢૻૡૺૻૢૺ	(મું આ મું	ૼૼૼૼૼઽૢૻૼૼૼૼઽૢૻૻૼૼૼઽૺૣૻૼૼૼૼૼૼૼૼૺૼ	
🕅 rotate by 90°	· · · · · · · · · · · · · · · · · · ·	D, 'O, 'O, ' 'O	\$\$`\$\$`\$\$`\$\$`\$\$`	02 °02 ° °03 °0	63, 103, 103, 103, 10	b^{2} , b
Settings		er Quantity 🌂 Bik	kes / Order Quantity	🍋 Clothing / Ord	ler Quantity 🌂 Co	mponents / Order Quantity

All levels are displayed by default. But we have a possibility to display the following options:

- First Visible Level
- Last Visible Level
- All Levels

For each hierarchy of the report there is a possibility to choose between:

- Fist Visible Level
- Last Visible Level
- All Levels
- By Default

Let us display just the years without half-years and quarters. To do this, select "First Visible Level" for the hierarchy "Date/Date.Calender":



As a result we'll get the following visualization:



You can change the settings of the chart:





Here you can add the restrictions for specific hierarchies or to reset all the settings. Let us add the restriction and display only the quarters on the chart:

🏮 Chart Settings	x
Data \$ Image: Colors Image: Colors Appearance \$ Image: Colors Image: Colors Image: Colors Image: Colors	Hierarchy: Date/Date.Calendar (changed) Which level to show on the chart? By Default All Levels First Visible Level Custom Levels Calendar Year Calendar Semester Calendar Quarter Month Date Reset all settings for hierarchies and set "by default" Reset all settings for hierarchies and set "by default" Image: Calendar Semester Calendar Semester Calendar Quarter Month Date Reset all settings for hierarchies and set "by default" Calendar Semester Calendar Semester Calendar Quarter Month Date Date Date Reset all settings for hierarchies and set "by default" Calendar Semester Calendar Semester Calendar Quarter Date <l< td=""></l<>
V Automatic Preview	OK Cancel

As a result, we'll get the following report:



4 Creation, Saving and Restoring of Pages

4.1 Creating a New Page

A report can have arbitrary number of pages. In order to add an empty page you have to do one of the following:

1. Press the button "Add New Page" in the toolbar:



2. Or select the item "Add" in the "Page" menu:



After doing this you will get a dialog box which will let you input the name for a new page and select its type:

🟮 Report Page			x
Name: * Table 2			
Page Type:			
Table/Chart	Image: sector of the sector	Scatter-diagram	Dashboard
			OK Cancel



After pressing «OK» the new page will become available:

4.2 Copying the Existing Page

You can create an exact copy of any page. This can be done using context menu for the corresponding tab:



After that the application will ask you to enter the name of the new page:

🟮 Report Page	x
Name: * Table 1 (2)	
	OK Cancel

After pressing «OK» the page will become available:



You can also copy a page using corresponding item of "Page/Copy" menu or by pressing a button on the toolbar:

٢	Business An	alysis Tool (I	Report Mo	dule) - htt	p://uran	ius:88
:	<u>Application</u>	<u>M</u> odule	<u>R</u> eports	Report	<u>P</u> age	<u>V</u> iev
1	608		6	<u>C:</u> 6	۵ (23 XX
	🗢 _{Settin}	as Dimen	ersion 1 fro	Copy cu	rrent pa	ge

Attention!

All the changes you perform over the structure of your own pages are saved on the server. All the changes you make to the administrator's pages will be lost after you close the report. That's why you should use page copying as an efficient way to save the structure you need for further viewing.

4.3 Pages Saving

If you are the author of the page than that page is marked with a blue color and when you move the mouse pointer over it you will see a hint «Page created by …»:



You can see four pages on the picture: first two are the administrator's pages and the last one is yours.

You can save the structure of your own pages using one of the approaches:

1. Press "Save Report" button on the toolbar:



2. Use the "Page/Save" item from the main menu.

Attention!

- 1) You can save only your own pages. If you perform any changes to the administrator's pages and save all pages of the report, you will lose all the changes you made to administrator's pages.
- 2) When you are saving a report, the structure of the report is saved (the information about what is placed on the rows and columns etc.), but not data. It is saved on the server, so if you will login to the Report Module on the other computer you will see all the pages you saved.

4.4 Undo Action

While working with a report sometimes you'll need to rollback one or more previous changes you made, i.e. return the report to the state it was in before you made those changes. To perform such rollback there is an "Undo" button on the toolbar:



After undoing some changes you can return them back (i.e. perform the changes once again) using "Redo" button:



4.5 Report Restore

There is a way to restore a pages structure. It means that all your changes on the page will be lost and you will get the last saved (by you or administrator) version.

Here is an example. Suppose, the page was looking like this when you opened it:



You changed it structure – for example, altered the selection on rows and columns, so that the page now looks like this:

٢	🔋 Business Analysis Tool (Report Module) - http://uranus:88/ 🛛 🗖 🗙																
1	<u>Application</u>	<u>M</u> o	dule	<u>R</u> eports	Report	<u>P</u> age	<u>V</u> iew	<u>D</u> ata	<u>T</u> able	T <u>c</u>	ols <u>H</u> elp						
: () 🖯 💾	3		6 6	er p	2	ES XK	Descript	ion C	3	🕹 오 🏷	💐 100% 🔹 !	Table	- -) I)		
	Z2 (Version 1 from 1/9/2014)										×						
	Satting		Dimens	sions	121												a
	Jetung.		⊕ iei	Account			Columns 🚊 - + Date/Date.Calendar - 🕵 × - + Geography - 😡 ×										
	·		± 💓	Customer			Rows 😑 – + Product/Product Categories - 🔞 ×										
			± 🗵	Date			1			_							40
	List		H 🕑	Delivery Da	ate	=	Rows / C	olumns	Filter	Sort	ing						
			± 🕑	Departmer	nt		Context			Pro	duct/Prod	+ CY 2001		+ CY 2002	0-		
			± 🥑	Destination	n Currency					UCC	Categori Bike Racks	(+) Canada	+ United States	(+) Canada	+ France	+ United Kin	÷.
	Reports		🕀 📔	Employee						H	Bottles a						4.
			🕀 📔	Geography	/		Measures			Ē	Cleaners						£
_	~	.		Internet S	ales Orde	·	Reseller Sa	les Amour	t ×	(+)	Helmets	\$5,147.56	\$15,087.81	\$17,731.90	\$3,904.74	\$3,05	
			e 📃	Organizati	on					±	lydration						
			• •	Product						(±	LOCKS			\$2,695.24	\$600.00	\$45	
			Measu		-						rumps Fires and			\$2,068.01	\$591.49	\$37.	
			🕀 🛜	KPI						Ē	4ountain	\$677,138,20	\$3,868,198,31	\$1,651,174,99	\$216,198,71	\$353.04	
			🕀 🗋	qwe						Ð	Road Bikes	\$693,583.07	\$2,156,429.04	\$2,287,108.99	\$438,039.49	\$293,64	
			- al	Amount						(±)	Fouring B						
		4		Average R	ate					+ E	Bib-Shorts			\$25,352.88	\$6,902.67	\$5,53	
				Average S	ales Amoun	t				E C	Caps	\$727.75	\$1,959.13	\$2,310.76	\$420.43	\$31	
				Average U	Init Price						arcove	te e70 24	¢01 E02 02	\$19,089.00	\$4,842.06	\$5,58	
				Customer (Count					E.	Shorts	\$0,072.34	\$21,303.23	\$11,870,41	\$3,203.47	\$2,55	
				Discount A	mount					(+)	Socks	\$513.25	\$2,920.65	\$497.40	+=,=====	+=,-=-	
				Discount P	ercentage					(±)	Fights			\$29,502.11	\$7,472.24	\$6,12	
				End of Day	/ Rate					+	/ests			-			
				Expense to	Revenu	_				(+)	Bottom B						
				Evtended	Amount						Srakes Shains						
			Sets	_	-					Ē	Cranksets						
			± 🗖	Sets			ł	lighlight		Ē	Derailleurs						
] 📖 =		7.11 of								41
							13 Table	-1	Table 1	(2)					Se	arch	1
								_			_					_	
Lo	gin: mikle Sen	ver: I	http://u	uranus:88/	Rows: 33	Colu	imns: 18										

If you wish to undo all your changes and return to the version saved on the server select "Page / Rollback to last save view" from the main menu:



4.6 Export of Pages and Data

4.6.1 Data Export to Word, Excel, PDF.

To export pages data to the Word, Excel, Open Office Calc or PDF file, you'll need to perform one of the next actions:

- 1. Select "Table / Export to Excel" (Word, Open Office Calc or PDF)» from the main menu;
- 2. Press the right mouse button inside the table to call the context menu and then select "Export to Excel" (Word, Open Office Calc or PDF):



When the export is completed you will be asked if you want to open the created file.

4.6.2 Saving the Pages to NRP file

NRP is a file format developed for compact and secure report saving. There is a special NRP files viewer available on the pages of Business Analysis Tool portal:

				ENG UKR RUS
		Business users	Administrators	
You are he	re: Business users			
		odule	rosoft Internet Explor	er.
	Enter			
-	Report Mo	odule installe	er	
	Important! After y drive. Launch NBA Download	ou download this archi TReportInstall.exe fro	ve, extract its content m this folder and follov	to a single folder on your local hard w the installation instructions.
	NRP View	er		
	NRP is a file format hard drive you will Download	t of reports saved to th need this program to v	e hard drive. If you we view these reports.	ould like to save reports to your local

After downloading and installing this viewer you will be able to view NRP files, just the way you do it with PDF, DOC and other document files types.

To save your page to an NRP file you need to select "Page / Save to File" from the main menu.

🟮 Save to File	x
Expenses In Time - Chart Expenses Dependency On Income	Select All Unselect All Current Page
	R
CompressionLevel: Normal -	
OK Cancel	

The window will appear where you'll be able to set some advanced saving settings:

NRP file format supports the saving of multiple pages into one file. In the «Save to File» window you can select the page you want to save, set the compression level and set the password required to open a saved file. The compression level does not affect the data you are saving, it only affects the size of the resulting file (the bigger is compression level, the smaller will be the file size). If you'll set the password for the file no one will be able to open it without the password.
5 Advanced Report Designing Options

5.1 Detailed View (Drill Through operation)

Drill through (detailed view) enables you to view the piece of data from DB that some value from the table is based on.

Let's perform the drill through operation on our example report page. Select an arbitrary cell from the table on which you wish to perform a detailed view. Now press the right mouse button on that cell and select "Drill Through" from the context menu:



As a result you will see first 1000 rows from the data base table:

۲	Drillthrough for Reseller Sales Amount, CY 2001, Mountain Bikes (first 1000 rows)										
	#	[Reseller	[Reseller	[Reseller	[Reseller	[Reseller	[Reseller	[Reseller	[Reseller	[Reseller	
>	1	2039.994	1	2039.994	163.1995	50.9999	0	2039.994	0	1912.1544	
	2	4049.988	2	4049.988	323.999	101.2497	0	2024.994	0	3796.1888	
	3	4049.988	2	4049.988	323.999	101.2497	0	2024.994	0	3796.1888	
	4	4079.988	2	4079.988	326.399	101.9997	0	2039.994	0	3824.3088	
	5	2039.994	1	2039.994	163.1995	50.9999	0	2039.994	0	1912.1544	
	6	2039.994	1	2039.994	163.1995	50.9999	0	2039.994	0	1912.1544	
	7	4079.988	2	4079.988	326.399	101.9997	0	2039.994	0	3824.3088	
	8	4049.988	2	4049.988	323.999	101.2497	0	2024.994	0	3796.1888	
	9	6074.982	3	6074.982	485.9986	151.8746	0	2024.994	0	5694.2832	
	10	8099.976	4	8099.976	647.9981	202.4994	0	2024.994	0	7592.3776	
	11	10124.97	5	10124.97	809.9976	253.1243	0	2024.994	0	9490.472	
	12	4079.988	2	4079.988	326.399	101.9997	0	2039.994	0	3824.3088	
4	10	C140.000	•	C 4 40 000	400 5005	150.0005	•	2020.004	0		
						Ē	xport to Excel	Export to Op	pen Office Calc	Close	

You can export those results to an Excel file or to Open Office Calc.

Attention!

- 1) It is possible that you don't have enough rights to perform drillthrough (if an administrator didn't allow you to). In that case you won't be able to see the corresponding menu item.
- 2) The drill through operation may be not configured on the corresponding cube on the server. In this case trying to perform the operation you will get an appropriate message.

5.2 Data Highlighting

Highlighting helps you to better analyze data. Let's prepare the table of the next structure:

Columns 🖺 🗕 +	Date/Date.Calendar 👻 🕵 🗙]		
Rows 😫 – Pro	oduct/Product Categories 👻 🗔	×		
Rows / Columns Filter	Sorting			
Context	Product/Product Catego	+ CY 2003	+ CY 2004	
	Touring-2000 Blue, 60	\$293,136.02	\$244,184.85	
	Touring-1000 Yellow, 46	\$483,060.26	\$533,252.57	
	Touring-1000 Yellow, 50	\$292,191.62	\$329,001.66	
	Touring-1000 Yellow, 54	\$135,987.35	\$154,487.74	
	Touring-1000 Yellow, 60	\$570,404.24	\$613,959.06	
	Touring-3000 Blue, 54	\$125,421.89	\$123,823.98	
Measures	Touring-3000 Blue, 58	\$83,113.51	\$85,518.72	
Decelles Coles Amount	Touring-3000 Blue, 62	\$39,669.33	\$48,104.28	
Reseller Sales Amount X	Touring-3000 Yellow, 44	\$156,765.69	\$157,557.55	
	Touring-3000 Yellow, 50	\$124,570.04	\$123,378.57	
	Touring-3000 Yellow, 54	\$79,667.15	\$81,510.03	
	Touring-3000 Yellow, 58	\$47,903.85	\$48,104.28	
	Touring-3000 Yellow, 62	\$156,825.74	\$157,604.47	
	Touring-1000 Blue, 46	\$637,968.79	\$527,004.40	
	Touring-1000 Blue, 50	\$387,649.78	\$326,140.78	
	Touring-1000 Blue, 54	\$207,414.09	\$154,487.74	
	Touring-1000 Blue, 60	\$759,596.65	\$611,187.58	
	Touring-2000 Blue, 46	\$175,973.94	\$145,053.09	
	Touring-2000 Blue, 50	\$78,722.28	\$78,722.28	
	Touring-2000 Blue, 54	\$364,777.66	\$300,617.55	
	Touring-3000 Blue, 44	\$45,916.20	\$48,104.28	
	Touring-3000 Blue, 50	\$156,394.59	\$156,554.12	
Highlight				

On the rows – "Product Categories" dimension with a whole "Product" level selected under the "Touring Bikes" element:

🗆 🏹 🛄 All Products
O Accessories
😑 🥥 📃 Bikes
🕀 🍚 🦳 Mountain Bikes
🕀 🍚 🥅 Road Bikes
😑 🍑 🦳 Touring Bikes
🚣 🔽 Product
🕀 🥥 📃 Clothing
🗄 🅥 📃 Components

on columns – years 2003 and 2004. Inside the table – "Reseller Sales Amount" measure. Say, we need to emphasize somehow the sales amount larger than 500,000. To do that, perform one of the following actions:

- 1. Select "Table / Hightlight" from main menu.
- 2. Select the corresponding item from the context menu of the table:

	+ CY 2003		+ CY 2004	
Touring-1000 Blue, 46	\$6	37,968.79	\$527,004.40	
Touring-1000 Blue, 50	\$3	87,649.78	\$326,140.78	
Touring-1000 Blue, 54	\$2	07,414.09	\$154,487.74	
Touring-1000 Blue, 60		Show by	•	1
Touring-1000 Yellow, 46				
Touring-1000 Yellow, 50	1	Drill Thro	bugh	
Touring-1000 Yellow, 54		Drill Thro	ough Actions	
Touring-1000 Yellow, 60		Actions		
Touring-2000 Blue, 46		Actions	P	
Touring-2000 Blue, 50		Highligh	t 🔸	Quickly Add Rule
Touring-2000 Blue, 54	2	Formatti	ng	E die Litte bit e betre
Touring-2000 Blue, 60				Edit Highlight Kules
Touring-3000 Blue, 44	1	Export to	Excel	Remove Highlight Rules for This Measure
Touring-3000 Blue, 50	る	Export to	Open Office Calc	Remove All Highlight Rules
Touring-3000 Blue, 54	DIRE 1	Export to	Word	Remove Air Fighinghe Rules
Touring-3000 Blue, 58		LAPOIT TO	word	
Touring-3000 Blue, 62		Export to	PDF	
Touring-3000 Yellow, 44		Print		
Touring-3000 Yellow, 50		24,370.04	\$120,070.07	
Touring-3000 Yellow, 54	\$	79,667.15	\$81,510.03	

3. Press the Highlight button at the bottom of the editor:



The window will appear containing highlight rules (there are no rules at the moment):



Press the Add button and a new tab with a highlight rule will appear.

Let's name the rule "More than 500K" and fill in all the fields as it is shown on the picture below:

🧿 Highlight Rules		x
More than 500K		_
Name:	More than 500K	
Measure to analyse:	Reseller Sales Amount	
Type of analysis:	Exception C Gradient	
Null values:	Ignore •	
Value:	Greater	
Preview:	AaBbCcYyZz Select	
Measure to paint:	The same as analysed	
	tt 🛜 KPI	
	Image: Amount Image: Average Rate	
Add	Copy I < > > Remove	
	OK Cancel	

According to the configured rule, the "Reseller Sales Amount" measure will be analyzed. The type of analysis is Exception (exceptional situation), empty fields will be ignored and the values bigger than 500,000 will be colored green.

After pressing «OK» button you will see that all values bigger than 500,000 are highlighted with a green color:

	+ CY 2003	+ CY 2004
Touring-1000 Blue, 46	\$637,968.79	\$527,004.40
Touring-1000 Blue, 50	\$387,649.78	\$326,140.78
Touring-1000 Blue, 54	\$207,414.09	\$154,487.74
Touring-1000 Blue, 60	\$759,596.65	\$611,187.58
Touring-1000 Yellow, 46	\$483,060.26	\$533,252.57
Touring-1000 Yellow, 50	\$292,191.62	\$329,001.66
Touring-1000 Yellow, 54	\$135,987.35	\$154,487.74
Touring-1000 Yellow, 60	\$570,404.24	\$613,959.06
Touring-2000 Blue, 46	\$175,973.94	\$145,053.09
Touring-2000 Blue, 50	\$78,722.28	\$78,722.28
Touring-2000 Blue, 54	\$364,777.66	\$300,617.55
Touring-2000 Blue, 60	\$293,136.02	\$244,184.85
Touring-3000 Blue, 44	\$45,916.20	\$48,104.28
Touring-3000 Blue, 50	\$156,394.59	\$156,554.12
Touring-3000 Blue, 54	\$125,421.89	\$123,823.98
Touring-3000 Blue, 58	\$83,113.51	\$85,518.72
Touring-3000 Blue, 62	\$39,669.33	\$48,104.28
Touring-3000 Yellow, 44	\$156,765.69	\$157,557.55
Touring-3000 Yellow, 50	\$124,570.04	\$123,378.57
Touring-3000 Yellow, 54	\$79,667.15	\$81,510.03
Touring-3000 Yellow, 58	\$47,903.85	\$48,104.28
Touring-3000 Yellow, 62	\$156,825.74	\$157,604.47

You can set multiple highlight rules.

The highlight can also be of gradient type. Open the highlight rules window once again and change the highlight settings as it is shown on the picture:

🤤 Highlight Rules		x
More than 500K		
Name:	More than 500K	
Measure to analyse:	Reseller Sales Amount	•
Type of analysis:	© Exception (2) Gradient	
Null values:	Ignore 👻	
Paint:	Background	
Preview:	Select	
Measure to paint:	The same as analysed	
	🕀 💼 KPI	^
	Amount Average Rate	-
Add	Copy I< < > > Remove	
	OK	ancel

After that the table will look like this:

Touring-1000 Blue, 46\$637,968.79\$527,004.40Touring-1000 Blue, 50\$387,649.78\$326,140.78Touring-1000 Blue, 54\$207,414.09\$154,487.74Touring-1000 Blue, 60\$759,596.65\$611,187.58Touring-1000 Yellow, 46\$483,060.26\$533,252.57Touring-1000 Yellow, 50\$292,191.62\$329,001.66Touring-1000 Yellow, 50\$292,191.62\$329,001.66Touring-1000 Yellow, 54\$135,987.35\$154,487.74Touring-1000 Yellow, 60\$570,404.24\$613,959.06Touring-2000 Blue, 46\$175,973.94\$145,053.09Touring-2000 Blue, 50\$78,722.28\$78,722.28Touring-2000 Blue, 50\$78,722.28\$78,722.28Touring-2000 Blue, 54\$364,777.66\$300,617.55Touring-3000 Blue, 54\$156,394.59\$156,554.12Touring-3000 Blue, 54\$125,421.89\$123,823.98Touring-3000 Blue, 54\$483,113.51\$85,518.72Touring-3000 Blue, 58\$83,113.51\$85,518.72Touring-3000 Blue, 50\$126,756.69\$157,557.55Touring-3000 Pellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$47,903.85\$448,104.28Touring-3000 Yellow, 58\$47,903.85\$448,104.28Touring-3000 Yellow, 58\$47,903.85\$448,104.28Touring-3000 Yellow, 58\$47,903.85\$448,104.28Touring-3000 Yellow, 58\$47,903.85\$448,104.28Touring-3000 Yellow, 58\$47,903.85 <th></th> <th>+ CY 2003</th> <th>+ CY 2004</th>		+ CY 2003	+ CY 2004
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Touring-2000 Blue, 54\$364,777.66\$300,617.55Touring-2000 Blue, 60\$293,136.02\$244,184.85Touring-3000 Blue, 44\$45,916.20\$48,104.28Touring-3000 Blue, 50\$156,394.59\$156,554.12Touring-3000 Blue, 54\$125,421.89\$123,823.98Touring-3000 Blue, 58\$83,113.51\$85,518.72Touring-3000 Blue, 62\$39,669.33\$48,104.28Touring-3000 Yellow, 44\$156,765.69\$157,557.55Touring-3000 Yellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$47,903.85\$48,104.28Touring-3000 Yellow, 62\$156,825.74\$157,604.47	Touring-2000 Blue, 50	\$78,722.28	\$78,722.28
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Touring-3000 Blue, 44\$45,916.20\$48,104.28Touring-3000 Blue, 50\$156,394.59\$156,554.12Touring-3000 Blue, 54\$125,421.89\$123,823.98Touring-3000 Blue, 58\$83,113.51\$85,518.72Touring-3000 Blue, 62\$39,669.33\$48,104.28Touring-3000 Yellow, 44\$156,765.69\$157,557.55Touring-3000 Yellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$447,903.85\$48,104.28Touring-3000 Yellow, 52\$156,825.74\$157,604.47	Touring-2000 Blue, 60	\$293,136.02	\$244,184.85
Touring-3000 Blue, 50\$156,394.59\$156,554.12Touring-3000 Blue, 54\$125,421.89\$123,823.98Touring-3000 Blue, 58\$83,113.51\$85,518.72Touring-3000 Blue, 62\$39,669.33\$48,104.28Touring-3000 Yellow, 44\$156,765.69\$157,557.55Touring-3000 Yellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$47,903.85\$48,104.28Touring-3000 Yellow, 58\$47,903.85\$48,104.28Touring-3000 Yellow, 52\$156,825.74\$157,604.47	Touring-3000 Blue, 44	\$45,916.20	\$48,104.28
Touring-3000 Blue, 54\$125,421.89\$123,823.98Touring-3000 Blue, 58\$83,113.51\$85,518.72Touring-3000 Blue, 62\$39,669.33\$48,104.28Touring-3000 Yellow, 44\$156,765.69\$157,557.55Touring-3000 Yellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$447,903.85\$48,104.28Touring-3000 Yellow, 62\$156,825.74\$157,604.47	Touring-3000 Blue, 50	\$156,394.59	\$156,554.12
Touring-3000 Blue, 58\$83,113.51\$85,518.72Touring-3000 Blue, 62\$39,669.33\$48,104.28Touring-3000 Yellow, 44\$156,765.69\$157,557.55Touring-3000 Yellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$447,903.85\$48,104.28Touring-3000 Yellow, 62\$156,825.74\$157,604.47	Touring-3000 Blue, 54	\$125,421.89	\$123,823.98
Touring-3000 Blue, 62\$39,669.33\$48,104.28Touring-3000 Yellow, 44\$156,765.69\$157,557.55Touring-3000 Yellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$47,903.85\$48,104.28Touring-3000 Yellow, 62\$156,825.74\$157,604.47	Touring-3000 Blue, 58	\$83,113.51	\$85,518.72
Touring-3000 Yellow, 44\$156,765.69\$157,557.55Touring-3000 Yellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$47,903.85\$48,104.28Touring-3000 Yellow, 62\$156,825.74\$157,604.47	Touring-3000 Blue, 62	\$39,669.33	\$48,104.28
Touring-3000 Yellow, 50\$124,570.04\$123,378.57Touring-3000 Yellow, 54\$79,667.15\$81,510.03Touring-3000 Yellow, 58\$47,903.85\$48,104.28Touring-3000 Yellow, 62\$156,825.74\$157,604.47	Touring-3000 Yellow, 44	\$156,765.69	\$157,557.55
Touring-3000 Yellow, 54 \$79,667.15 \$81,510.03 Touring-3000 Yellow, 58 \$47,903.85 \$48,104.28 Touring-3000 Yellow, 62 \$156,825.74 \$157,604.47	Touring-3000 Yellow, 50	\$124,570.04	\$123,378.57
Touring-3000 Yellow, 58 \$47,903.85 \$48,104.28 Touring-3000 Yellow, 62 \$156,825.74 \$157,604.47	Touring-3000 Yellow, 54	\$79,667.15	\$81,510.03
Touring-3000 Yellow, 62 \$156,825.74 \$157,604.47	Touring-3000 Yellow, 58	\$47,903.85	\$48,104.28
	Touring-3000 Yellow, 62	\$156,825.74	\$157,604.47

You can easily notice that the bigger is value in the cell, the more saturated is its color. If you press the "Select" button in the highlight rule's settings window,

🤤 Highlight Rules			x
More than 500K			
Name:	More than 500K		
Measure to analyse:	Reseller Sales Amount		•
Type of analysis:	© Exception	🖲 Gradient	
Null values:	Ignore	.	
Paint:	Background	© Foreground	X
Preview:			Select
Measure to paint:	The same as analysed		
	🕀 💼 KPI		^
	Amount		
Add	Сору	> > Remove	
		C	OK Cancel

then the other window will appear where you can set the gradient settings:

🏮 Gradie	ent H	ighligh	ıt									x
One-col	or			🖲 Tv	vo-colo	or		C	Rain	bow		
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V Steps		10) ‡				ſ					
								C	K		Cance	

You can set one-color, two-color or rainbow highlight, set the number of steps, etc.

5.3 Text Formatting

Apart from highlighting there exists a possibility to «paint» the text on rows, columns and inside the table. To do that select «Table / Formatting» in main menu or the similar item in the table's context menu. The following form will appear:

🏮 Bu	isiness Analys	sis Tool (I	Report Mod	ule) - ht	tp://127.	0.0.1:80	05/									
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	*	🕀 🗄	Employee						Show Summ	ary Columns	1	9,956,	014.67\$	25,551,775.07	13,399,243.1	8\$
	Reports	🗆 📴	Geography						Show Summ	ary Rows	- H	465,	007.155 002.47¢	5 482 497 29	2 091 011 9	05) 26
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		•	Postal C	ode	Reseller	Sales Am	ount 👻	1	Highlight		- 1					
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			Internet Sa	es 🔻					-							
		Measu	ires					2	Export to NR	P	- 1					
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			Reseller	т 💻												
			II Reseller	т												
		🗉 🕀 🚞	Sales Quota													
		• •	Sales Summ	ary _												
			Gross Profit													
		Sets														
		🗆 🔂	Calculated 9	iets 🔺		Highligh	nt									
			Набор Р	ro 🔳												

🟮 Formatting	x
Hierarchies Measures	
ia 19 10	Header Body
🕀 过 Account	Layout
🕀 🙋 Customer	
🕀 🞯 Date	Orientation: * Auto
Delivery Date	Horizontal Align: * Left -
	Vertical Align: * Top 👻
🕀 😥 Geography	Header
🕀 🝺 Internet Sales Order Details	Text Color: * 0,0,0
🕀 🧖 Organization	Back Color: * 240, 240, 240
🕀 🙋 Product	
🗄 📴 Promotion	
🗉 📴 Reseller	
	Font Size: * 8 🗘
🗄 😥 Sales Reason	Font Name: * Verdana -
🗄 💓 Sales Summary Order Details	Bold: *
🕀 🥂 Sales Territory	Italic:
🕀 🙋 Scenario	Ctrikeout
🕀 🔯 Ship Date	Strikeout:
Source Currency	Underline: *
S Default Level	
	Remove custom formatting for all levels
	OK Cancel

Columns 📙 - + Date/Date.Calendar - 🕵 × - + Geography - 🕵 ×									
Rows 🗄 - + Product/Product Categories - 😡 ×									
Rows / Columns Filter	Sorting								
Context Product/Prod + CY 2001 + CY 2002									
	uct Categori 💽	+) Canada	🕂 Unite	d States	🕂 Canada	+ France	🕂 United Kin		
	🕂 Bike Racks						▲		
Manauraa	+ Bottles	D 101							
Measures	🕂 Cleaner	Drill by	•						
Reseller Sales Amount ×	+ Helmets	Drill by on New	Page 🕨	087.81	\$17,731.90	\$3,904.74	\$3,05		
	+ Hydrati	B.10.0							
	+ Locks	Drill Up			Formatting for Subcategory				
	+ Pumps	Drill Down							
	+ fires an	15.1.3		-	Grey Alternating Red Alternating				
	Road Bi	Hide Item							
	+ Touring	Keep Only This							
	+ Bib-Shc	Hide Siblings							
	+ Caps	ride siblings			Orange Alternating				
	+ Gloves	Show All Childr	en		Vellow Alternating				
	+ Jerseys	Show Level			Tellow Alternating				
	+ Shorts	SHOW EEVE			Green Alternating Cyan Alternating				
	🕂 Socks 🛛 🚱	Member Selecto	or						
	🕂 Tights	Actions	•						
	+ Vests	Actions			Blue Alternati	ing			
	🕂 Bottom 👔	Sorting	+		Violet Alterna	ting			
	+ Brakes	Filter							
	+ Chains 7=		Grey						
Highlight			-		Red	Red			
	Grades				Orange	Orange			
1 👪 Table 1	2)				Vellow		-		
Table 1	2)				Yellow				

You can do the same thing from the context menu of the table:

or

Columns	999	- •	• Date/Date.Calen	dar 👻 🔽	Convert to set	×		
Rows			 Product/Product 	Categori 🛐	Formatting			
Rows / Column	ns 📕	Filter	Sorting	_				
Context			Product/Prod	+ CY 2001	United State	+ CY 2002	Erance	United Kin

When the user enters in menu "Formatting", he will get a dialog box with the tree open at the left side. The tree will be open up to the level which was selected by the user:



If we use the main menu to get into this dialog box, we'll see the following:

Formatting X
Table Hierarchies Measures
☑ Use interface theme settings
Table line color:
OK Cancel

The tab "Table" is used to set up the color of the lines. The rest two tabs are used to format hierarchies, levels and measures.

5.3.1 Hierarchy Formatting

Each hierarchy has a set of settings for automatic coloring of its levels. Let us look at the example. Click the right mouse button on the hierarchy "Product/Product Categories" and select "Formatting":

Columns 📙 🗕	+ Date/Date.Calendar	- 🗔 × – + G	eography 👻 🗔 🗙	
Rows 🖺 🗕	+ Product/Product Cat	egories 👻 🚺	Convert to set	
Rows / Columns Filter	r Sorting	5	Formatting	
Context	Product/Product	+ CY 2005	+JCT 2004	
	Categories	🕂 Canada	🕂 Canada	
	Accessories	\$58,128.43	\$32,356.20	
	🕂 Bike Racks	\$21,405.68	\$16,089.98	
Measures	🕂 Bottles a	\$856.53	\$502.16	
Reseller Sales Amount	× 🕂 Cleaners	\$1,219.93	\$887.97	
	Helmets	\$23,984.40	\$10,406.00	
	.쁜 🕂 Hydration	\$7,964.01	\$4,404.14	
	မ္မိ 🕂 Locks	\$1,515.00		
	ဗ္ဗိ 🕂 Pumps	\$1,067.47		
	🖌 🕂 Tires and	\$115.42	\$65.95	
	Bikes	\$4,417,665.71	\$1,909,709.62	
	🕂 Mountain	\$1,666,549.71	\$727,933.91	
	🗑 🕂 Road Bikes	\$2,075,667.15	\$657,851.93	
	🚡 🕂 Touring B	\$675,448.85	\$523,923.79	
	Clothing	\$177,893.39	\$77,497.00	
	+ Bib-Shorts	\$15,478.73		
	🕂 Caps	\$3,058.36	\$1,054.30	
	+ Gloves	\$21,443.10	\$3,224.17	
	+ Jerseys	\$57,156.67	\$28,743.43	
	+ Shorts	\$37,517.22	\$24,549.83	
	E + Socks	\$1,711.99	\$1,024.21	
	🗄 🕂 Tights	\$18,231.81		
	o ⊕ Vests	\$23,295.52	\$18,901.08	
	- Components	\$997,617.89	\$370,698.68	
Highlight	Bottom B	\$4,997.14	\$3,053.38	

In the window below let us set up the following parameters for the level "Product Categories":



The table will look like this:

Columns 🔚 - + Date/Date.Calendar - 🕵 x - + Geography - 🕵 x							
Rows 📋 🗕 +	Pro	duct/Product Ca	ategories 👻 🕵 🗙				
Rows / Columns Filter Sorting							
Context	Pr t (oduct/Produc Categories	+ CY 2005 + Canada	+ CY 2006 + Canada			
		Accessories	5,147.56\$	22,495.16\$			
	:	+ Helmets	5,147.56\$	17,731.90\$			
	Sec	+ Locks		2,695.24\$			
	Ac	+ Pumps		2,068.01\$			
		Bikes	1,370,721.27\$	3,938,283.99\$			
Measures	J.	🕂 Mountai	677,138.20\$	1,651,174.99\$			
Deceller Sales Amount	ā	🕂 Road Bi	693,583.07\$	2,287,108.99\$			
Reseller Sales Amount 👻 🗴		Clothing	7,913.33\$	115,643.91\$			
		🕂 Bib-Sho		25,352.88\$			
		+ Caps	727.75\$	2,310.76\$			
		+ Gloves		19,089.00\$			
		+ Jerseys	6,672.34\$	27,021.35\$			
	Ē	+ Shorts		11,870.41\$			
	÷	+ Socks	513.25\$	497.40\$			
	ō	+ Tights		29,502.11\$			
		Components	129,577.29\$	746,576.15\$			
		+ Forks		10,986.95\$			
	2	🕂 Handleb		9,893.74\$			
	E L	+ Headsets		8,753.70\$			
	15	🕂 Mountai	69,060.35\$	267,994.62\$			
	Ē	🕂 Road Fr	60,516.94\$	354,668.99\$			
	ő	+ Wheels		94,278.15\$			
Highlight							

If we select the topmost level as well:

Member Selector: Product/Product Categories	x
Selection Filter Sorting Options	_
🖂 🔁 🖂 (All)	
· Subcategory	
	- 11

the table will look like this:

Pro	odu	ict/Product	+ CY 2005	+ CY 2006
Categories		jories	+ Canada	+ Canada
-	All	Products	1,513,359.46\$	4,822,999.20\$
	-	Accessories	5,147.56\$	22,495.16\$
	0	+ Helmets	5,147.56\$	17,731.90\$
	Gess	+ Locks		2,695.24\$
	Ac	+ Pumps		2,068.01\$
	Ξ	Bikes	1,370,721.27\$	3,938,283.99\$
	es	🕂 Mountai	677,138.20\$	1,651,174.99\$
	¥	🕂 Road Bi	693,583.07\$	2,287,108.99\$
	Ξ	Clothing	7,913.33\$	115,643.91\$
		+ Bib-Sho		25,352.88\$
		🕂 Caps	727.75\$	2,310.76\$
		+ Gloves		19,089.00\$
		+ Jerseys	6,672.34\$	27,021.35\$
	g	+ Shorts		11,870.41\$
	thir	+ Socks	513.25\$	497.40\$
	÷	+ Tights		29,502.11\$
	-	Components	129,577.29\$	746,576.15\$
		+ Forks		10,986.95\$
		🕂 Handleb		9,893.74\$
s	ţ	+ Headsets		8,753.70\$
onp	Duel	🕂 Mountai	69,060.35\$	267,994.62\$
Pro	du	🕂 Road Fr	60,516.94\$	354,668.99\$
F	ö	+ Wheels		94,278.15\$

Columns 📒 - + Date/Date.Calendar - 🕵 × - + Geography - 🕵 ×									
Rows 🗄 - + Product/Product Categories - 😡 ×									
Rows / Columns Filter Sorting Context Product/Product Categories Accessories + Helme Bikes Measures	ategories CY 2005 + CY 2005 + CY 20 + Canada + Canada 5,147.56\$ 22, Drill by > Drill by on New Page > Drill Up > Drill Down > Hide Item > Keep Only This > Hide Siblings > Show All Children > Show Level > Member Selector > Actions > Filter >	Formatting for Subcategory Formatting for Product/Product Categories Grey Alternating Red Alternating Orange Alternating Yellow Alternating Green Alternating Cyan Alternating Blue Alternating Violet Alternating Grey Red Orange Yellow Green Cyan Blue							
		Clear all formatting							

Format dialog can also be called from the context menu:

Let us look at one more example. Let us put the "Geography" and "Date/Date.Calendar" hierarchies on rows and let us put the hierarchy "Product/Product Categories" in context. Select "Bikes" in context:

Columns 😫			
Rows 😑 🗕 +	Geography - 🗔 x -	- + Date/Dat	e.Calendar 👻 🗔 🗙
Rows / Columns Filter	Sorting		
Context	Geography	Date/Date	
S > Product/Prod \$\lambda x\$	🔁 Australia	+ CY 2007	680,645.96\$
		+ CY 2008	643,174.77\$
	New South	+ CY 2007	477,607.72\$
	Wales	+ CY 2008	433,044.27\$
	🕂 Darlinghur	+ CY 2007	3,589.79\$
	st	+ CY 2008	2,672.46\$
Maagurag	+ Lane Cove	+ CY 2007	66,561.04\$
Measures		+ CY 2008	54,116.84\$
Reseller Sales Amount 👻 👻	+ Lavender	+ CY 2007	131,703.05\$
	Bay	+ CY 2008	84,059.47\$
	+ Malabar	+ CY 2008	2,860.88\$
	+ Matraville	+ CY 2007	2,195.37\$
		+ CY 2008	3,085,74\$
	+ Milsons	+ CY 2007	68,693.28\$
	Point	+ CY 2008	41,417,71\$
	+ Newcastle	F CY 2007	47,540,40\$
		+ CY 2008	41,933,18\$
	+ North Ryde	+ CY 2007	15,023,78\$
		+ CY 2008	25,830,95\$
	+ North	+ CY 2007	2,105.90\$
	Sydney	+ CY 2008	7,775,79\$
	🖉 🕂 Rhodes	+ CY 2007	95,512.14\$
	N N	+ CY 2008	122,459.42\$
	-	+ CY 2007	3,179,53\$
		+ CY 2008	4,224,49\$
	A → Sydney	+ CY 2007	41,503,44\$
	Vev lia	+ CY 2008	42,607,33\$
LE-LE-LE	t - Queensland	+ CY 2007	17,109.24\$
Hignlight	AL AL	+ CY 2008	17,977.21\$

If the automatic level coloring is set for hierarchy "Geography", but is not set for hierarchy "Date/Date.Calendar", we will see the following table:

Columns 📙					
Rows 🗄	- + 6	eogr	aphy - 🗔 × -	+ Date/Dat	e.Calendar 👻 🗔 🗄
Rows / Columns	lter S	orting	9		
Context		Geod	iraphy	Date/Date	
C Deschust/Desch		- A.	istralia	+ CY 2007	680,645.96\$
< > Product/Prod)	<u>× ×</u>			+ CY 2008	643,174.77\$
		-	New South	+ CY 2007	477,607.72\$
			Wales	+ CY 2008	433,044.27\$
			+ Darlinghur	+ CY 2007	3,589.79\$
			st	+ CY 2008	2,672.46\$
labouran			+ Lane Cove	+ CY 2007	66,561.04\$
leasures			_	+ CY 2008	54,116.84\$
teseller Sales Amount	- X		+ Lavender	+ CY 2007	131,703.05\$
			Bay	+ CY 2008	84,059.47\$
			+ Malabar	+ CY 2008	2,860.88\$
			+ Matraville	+ CY 2007	2,195.37\$
				+ CY 2008	3,085.74\$
			+ Milsons	+ CY 2007	68,693.28\$
			Point	+ CY 2008	41,417.71\$
			+ Newcastle	+ CY 2007	47,540.40\$
				+ CY 2008	41,933.18\$
			+ North Ryde	+ CY 2007	15,023.78\$
				+ CY 2008	25,830.95\$
			+ North	+ CY 2007	2,105.90\$
			Sydney	+ CY 2008	7,775.79\$
		ale	+ Rhodes	+ CY 2007	95,512.14\$
		. Š		+ CY 2008	122,459.42\$
		f	+ Silverwater	+ CY 2007	3,179.53\$
		Sol		+ CY 2008	4,224.49\$
			+ Sydney	+ CY 2007	41,503.44\$
		Re al		+ CY 2008	42,607.33\$
Highlight			Queensland	+ CY 2007	17,109.24\$
		2		+ CY 2008	17 977 21\$

The format rules are going "through" another hierarchy for which they are not defined. If we set up the format rules for "Date/Date.Calendar" which is placed to the right side of "Geography", we will get this:



Columns 😫								
Rows 😫 🗕 +	Geography 👻 🗔 🗙 –	+ Date/Dat	te.Calendar 👻 🕵 🗙					
Rows / Columns Filter Sorting								
Context	Geography	Date/Date						
∠ > Product/Prod S X	- Australia	🕂 CY 2007	680,645.96\$					
x > HouceHourn Ca x		+ CY 2008	643,174.77\$					
	New South	🕂 CY 2007	477,607.72\$					
	Wales	+ CY 2008	433,044.27\$					
	🕂 Darlinghur	🕂 CY 2007	3,589.79\$					
	st	+ CY 2008	2,672.46\$					
Measures	+ Lane Cove	🕂 CY 2007	66,561.04\$					
Picasares		+ CY 2008	54,116.84\$					
Reseller Sales Amount 👻 🗙	+ Lavender	+ CY 2007	131,703.05\$					
	Bay	+ CY 2008	84,059.47\$					
	+ Malabar	+ CY 2008	2,860.88\$					
	+ Matraville	+ CY 2007	2,195.37\$					
		+ CY 2008	3,085.74\$					
	+ Milsons	+ CY 2007	68,693.28\$					
	Point	+ CY 2008	41,417.71\$					
	+ Newcastle	+ CY 2007	47,540.40\$					
		+ CY 2008	41,933.18\$					
	🕂 North Ryde	+ CY 2007	15,023.78\$					
		+ CY 2008	25,830.95\$					
	+ North	+ CY 2007	2,105.90\$					
	Sydney	+ CY 2008	7,775.79\$					
	🚆 🕂 Rhodes	+ CY 2007	95,512.14\$					
	W.	+ CY 2008	122,459.42\$					
	듚 🕂 Silverwater	+ CY 2007	3,179.53\$					
	Sol	+ CY 2008	4,224.49\$					
	m ≩ + Sydney	+ CY 2007	41,503.44\$					
	Re	+ CY 2008	42,607.33\$					
Highlight	ਜ਼ 🔄 Queensland	+ CY 2007	17,109.24\$					
- ingringite	AL	+ CY 2008	17,977.21\$					

The right formatting rule has priority over the left formatting rule. If we have several levels displayed in the "Date/ Date.Calendar" hierarchy, it will look like this:

Columns 📙			
Rows 📒 🗕	+ Geography - 🗔 🗙	– + Date/Date.Calendar - 🗔	×
Rows / Columns Filter	Sorting		
Context	Geography	Date/Date.Calendar	
< > Product/Prod	– Australia	- CY 2007	680,645.96\$
		Q3 CY 2007	342,806.87\$
		∃uly 2007	39,902.50\$
		ပ် 🕂 August 2007	103,881.43\$
		🗧 💍 🕂 September 2007	199,022.94\$
		g - Q4 CY 2007	337,839.09\$
Measures		🔓 😋 📑 🕂 October 2007	51,635.39\$
People Cales Amount		🗙 🖸 🖸 🕂 November 2007	106,464.38\$
Reseller Sales Amount 👻 🗴		💍 ♀ 🖧 🕂 December 2007	179,739.31\$
		- CY 2008	643,174.77\$
		Q1 CY 2008	307,762.01\$
		🗄 🕂 January 2008	61,364.99\$
		ပ် 🕀 February 2008	63,843.85\$
	:	🚽 🔂 🕂 March 2008	182,553.17\$
	:	g 🔁 Q2 CY 2008	335,412.76\$
		👸 😋 📑 🕂 April 2008	54,279.61\$
		ລັບິບົ ⊕ May 2008	98,422.81\$
		ο Ξ ο ⊕ June 2008	182,710.33\$
	-	- CY 2007	477,607.72\$
		Q3 CY 2007	247,843.85\$
		🗄 🕂 🕂 July 2007	33,055.83\$
		0 ⊕ August 2007	74,779.73\$
	w	🚬 🛱 🕂 September 2007	140,008.29\$
	ae	8 - Q4 CY 2007	229,763.87\$
	×	🗧 🚬 🗄 🕂 October 2007	38,611.58\$
	e f	November 2007	71,038.37\$
	Sou	C ♀ S + December 2007	120,113.92\$
Highlight	str.	- CY 2008	433,044.27\$
r ngi nigi ti	N A C	C H - Q1 CY 2008	207,636.47\$

5.3.2 Formatting for Levels.

For every level of the tab "Hierarchies" you can set up parameters of the body and the header. Let us look at the example:

Columns 😫 🗕 +	Date/Date.Calend	dar 🛛 🗔 🗙 🗕 🔸 Geogra	phy + 🞑	×
Rows 😫 🗕 +	Product/Product (Categories 👻 🕵 🗙		
Rows / Columns Filter	Sorting			
Context Measures Reseller Sales Amount - ×	Product/Produ t Categories Accessories + Helmets. * + Loc + Pun Bikes + Mou # + Roa Clothir	c + CY 2005 + CY + Canada + Ca 5,147.56\$ Drill by Drill by Drill Up Drill Up Drill Down	2006 nada 22,495.16 17,731.90 2,695.24 2,068.01 8,283.99 1,174.99 2,108.00	55 55 15 15 15 15 15 15 15 15
	Hart Heal Hold Heal Heal Hold Heal H	Hide Item Keep Only This Hide Siblings Show All Children Show Level Member Selector Actions Sorting Filter Formatting		Formatting for Product/Product Categories Grey Alternating Red Alternating Orange Alternating Yellow Alternating Green Alternating Cyan Alternating Blue Alternating Violet Alternating Grey Red
Highlight				Orange Yellow

🟮 Formatting	x
Table Hierarchies Measures	
🗹 🔛	Header Body Separators
History	Apply Formatting
Stocking Area Stocking Area Stocking	Layout
Σ (All)	Orientations * Auto
 Category 	Auto
Subcategory	Horizontal Align: * Left
4 Product	Vertical Align: * Top -
Product Model Lines	Font
Gategory	
Large Photo	Text Color:
🕀 🚆 Model Name	Back Color: * 192, 192, 192
🕀 🚦 Product Line	Alternating: *
🕀 📰 Style	Alternative Back Color:* 0, 0, 0, 0
Image: Subcategory	Font Size: *
🗄 💆 Reseller	Font Name: * Verdana
🗄 💆 Reseller Sales Order Details	
🗄 😥 Sales Channel	
🗄 💆 Sales Reason	
Sales Summary Order Details Sales Territory	Strikeout: *
⊕ Scenario Scenario Scenario	Underline: *
🗄 🔯 Ship Date	
🗄 📴 Source Currency	
Σ Virtual Hierarchy	
2 Default Level	-
	OK Cancel

Let us select the following parameters on the tab "Header":



Set us "Apply header formatting to body":

As a result, the table will look like this:

Product/Product	+ CY 2005	+ CY 2006
Categories	🕂 Canada	🕂 Canada
 Accessories 	5,147.56\$	22,495.16\$
🕘 🛨 Helmets	*#######	;#######
👸 🛨 Locks		*#######
者 🛨 Pumps		*#######
- Bikes	1,370,721.27\$	3,938,283.99\$
; 🛨	*#######	*#######
ā +	*#######	*#######
 Clothing 	7,913.33\$	115,643.91\$
+		;########
+ Caps	#######	*#######
+ Gloves		;########
+ Jerseys	*#######	;#######
E + Shorts		+#######
+ Socks	######	######
0 🕂 Tights		*#######
- Components	129,577.29\$	746,576.15\$
+ Forks		*#######
2 <u>+</u>		*#######
E Headsets		*#######
	*########	*########
E +	*#######	*########
O 🕂 Wheels		F########

Product/Product Categories	+ CY 2005	+ CY 2006
Froduct Froduct Categories	🕂 Canada	🕂 Canada
- Accessories	5,147.56\$	22,495.16\$
😸 🛨 Helmets	5,147.56\$	17,731.90\$
🖁 🕂 Locks		2,695.24\$
🗧 🕂 Pumps		2,068.01\$
– Bikes	1,370,721.27\$	3,938,283.99\$
🖁 🗄 Mountain Bikes	677,138.20\$	1,651,174.99\$
🚡 🕂 Road Bikes	693,583.07\$	2,287,108.99\$
 Clothing 	7,913.33\$	115,643.91\$
Bib-Shorts		25,352.88\$
+ Caps	727.75\$	2,310.76\$
+ Gloves		19,089.00\$
+ Jerseys	6,672.34\$	27,021.35\$
👳 🕂 Shorts		11,870.41\$
E Socks	513.25\$	497.40\$
🔒 🕂 Tights		29,502.11\$
 Components 	129,577.29\$	746,576.15\$
+ Forks		10,986.95\$
Handlebars		9,893.74\$
월 🗄 Headsets		8,753.70\$
🖁 🗄 Mountain Frames	69,060.35\$	267,994.62\$
🚊 🕂 Road Frames	60,516.94\$	354,668.99\$
🖁 🛨 Wheels		94,278.15\$

If we increase the height and width of cells, we'll get a readable version:

The selection looks like this:



Der	. di	ist/Product Categories	+ CY 2005	+ CY 2006
FIL	Jui	ico Produce Categories	🕂 Canada	🕂 Canada
-	Ac	cessories	5,147.56\$	22,495.16\$
	Ξ	Helmets	5,147.56\$	17,731.90\$
		Sport-100 Helmet, Black	1,897.53\$	1,257.93\$
		Sport-100 Helmet, Black		4,705.84\$
		Sport-100 Helmet, Blue	1,635.11\$	1,312.12\$
		Sport-100 Helmet, Blue		5,212.85\$
		Sport-100 Helmet, Red	1,614.92\$	1,170.82\$
		Sport-100 Helmet, Red		4,072.34\$
s	Ξ	Locks		2,695.24\$
Ē		Cable Lock		2,695.24\$
Gess	Ξ	Pumps		2,068.01\$
ĕ		Minipump		2,068.01\$
-	Bil	(es	1,370,721.27\$	3,938,283.99\$
	Ξ	Mountain Bikes	677,138.20\$	1,651,174.99\$
		Mountain-100 Black, 38	125,549.63\$	81,126.32\$
		Mountain-100 Black, 42	105,299.69\$	82,813.82\$
		Mountain-100 Black, 44	81,744.96\$	59,779.51\$
		Mountain-100 Black, 48	83,024.75\$	69,735.73\$
		Mountain-100 Silver, 38	83,639.75\$	69,657.30\$
		Mountain-100 Silver, 42	79,559.77\$	92,862.23\$
		Mountain-100 Silver, 44	67,319.80\$	75,437.28\$

So, the rule is next: the settings for body of the table have higher priority than setting for the hierarchy.

Let us add one more level:







As a result, the table will look like this:

Pr	od	uct/Product Categories	+ CY 2005	+ CY 2006
	_		+ Canada	+ Canada
-	AI	Products	1,513,359.46\$	4,822,999.20\$
	-	Accessories	5,147.56\$	22,495.16\$
		- Helmets	5,147.56\$	17,731.90\$
		Sport-100 Helmet, Black	1,897.53\$	1,257.93\$
		Sport-100 Helmet, Black		4,705.84\$
		Sport-100 Helmet, Blue	1,635.11\$	1,312.12\$
		Sport-100 Helmet, Blue		5,212.85\$
		Sport-100 Helmet, Red	1,614.92\$	1,170.82\$
		Sport-100 Helmet, Red		4,072.34\$
	s	Locks		2,695.24\$
	i,	Cable Lock		2,695.24\$
	Gess	Pumps		2,068.01\$
	Ac	Minipump		2,068.01\$
	Ξ	Bikes	1,370,721.27\$	3,938,283.99\$
		 Mountain Bikes 	677,138.20\$	1,651,174.99\$
		Mountain-100 Black, 38	125,549.63\$	81,126.32\$
		Mountain-100 Black, 42	105,299.69\$	82,813.82\$
		Mountain-100 Black, 44	81,744.96\$	59,779.51\$
		Mountain-100 Black, 48	83,024.75\$	69,735.73\$
		Mountain-100 Silver, 38	83,639.75\$	69,657.30\$
		Mountain-100 Silver, 42	79,559.77\$	92,862.23\$
		Mountain-100 Silver, 44	67,319.80\$	75,437.28\$

We can conclude that formatting for a specific level overrides the settings for the whole hierarchy.

5.3.3 Measures Formatting

Let us look at measure formatting:

Columns 🔋 - + Date/Date.Calendar - 🗔 × - + Geography - 🗔 ×									
Rows 😫 + Pr	roduct/P	roduct Categories 👻 🕵 🗙							
Rows / Columns Filter Sorting									
Context	+ CY 2005	+ CY 2006							
		Products	1.513.359.46\$	4.822.999.20\$					
		Accessories	5 147 56\$	22 495 16\$					
		- Helmets	5,147.56¢	17,721,00¢					
		Sport-100 Helmet Black	5,147.50\$	17,731.90\$					
		Sport-100 Heimet, Black	1,897.53\$	1,257.93\$					
Measures		Sport-100 Heimet, Black		4,705.84\$					
Deceller Cales Amount		Sport-100 Helmet, Blue	1,635.11\$	1,312.12\$					
Reseller Sales Amou	ormattir	t-100 Helmet, Blue		5,212.85\$					
		t-100 Helmet, Red	1,614.92\$	1,170.82\$					
		Sport-100 Helmet, Red		4,072.34\$					
		Locks		2,695.24\$					
	orie	Cable Lock		2,695.24\$					
	sse	Pumps		2.068.01\$					
	Ŭ	Minipump		2.068.01\$					
		Bikes	1.370.721.27\$	3,938,283,99\$					
		- Mountain Bikes	677 129 20¢	1 651 174 000					
		Mountain-100 Black 38	105 540 625	1,051,174,995					
		Mauntain-100 Black, 38	125,549.63\$	61,126.32\$					
		Mountain-100 Black, 42	105,299.69\$	82,813.82\$					
		81,744.96\$	59,779.51\$						

There is one more tab "Representation" in the dialog where you can set set the number of digits before the decimal point, the currency symbol, the color and the font parameters for the measure. Let us set up the following parameters for the "Reseller Sales Amount" measure:

Formatting		x
Table Hierarchies Measures		
	Body Header Represen	ntation Separators
🕀 🛅 Finance 🧹	Format	
🕀 🚞 Internet Sales	Change representation setti	ings
😑 🗁 Reseller Sales		
Discount Amount	Measure value type:	Number
Sound Percentage	Diselay as	* Muncher
Reseller Average Sale	Display as:	Number 🔹
Reseller Average Unit	Use Regional Settings:	*
Reseller Extended Am	Decimal Places:	* 2 *
Reseller Gross Profit	Decimal Point:	* Comma
Reseller Gross Profit Mar		
Reseller Order Count	1000 Separator:	* Dot
Reseller Order Quantity	Currency Symbol:	* \$ (United States)
Reseller Ratio to All Pr		
Reseller Ratio to Pare		
Reseller Sales Amount	=	
Reseller Standard Pro		
Reseller Tax Amount		
Reseller Total Product		
🗄 🛄 Sales Quota		
🗄 🛄 Sales Summary		
Gross Profit Rolling		
ClientCalcDate		
Server E Min Date		
ServerCalcDate		
		OK Cancel

The table will look like this:

Broduct/Broduct Categories		uct/Product Categories	+ CY 2005	+ CY 2006
-	out	act Product Categories	🕂 Canada	🕂 Canada
-	All	Products	1.513.359,46	4.822.999,20
	-	Accessories	5.147,56	22.495,16
		- Helmets	5.147,56	17.731,90
		Sport-100 Helmet, Black	1.897,53	1.257,93
		Sport-100 Helmet, Black		4.705,84
		Sport-100 Helmet, Blue	1.635,11	1.312,12
		Sport-100 Helmet, Blue		5.212,85
		Sport-100 Helmet, Red	1.614,92	1.170,82
		Sport-100 Helmet, Red		4.072,34
	s	Locks		2.695,24
	sori	Cable Lock		2.695,24
	Ges	 Pumps 		2.068,01
	Ac	Minipump		2.068,01
	- Bikes		1.370.721,27	3.938.283,99
		 Mountain Bikes 	677.138,20	1.651.174,99
		Mountain-100 Black, 38	125.549,63	81.126,32
		Mountain-100 Black, 42	105.299,69	82.813,82
		Mountain-100 Black, 44	81.744,96	59.779,51
		Mountain-100 Black, 48	83.024,75	69.735,73
		Mountain-100 Silver, 38	83.639,75	69.657,30
		Mountain-100 Silver, 42	79.559,77	92.862,23
		Mountain-100 Silver, 44	67.319,80	75.437,28
		Mountain-100 Silver, 48	50.999,85	58.564,83
		Mountain-200 Black, 38		162.611,51
		Mountain-200 Black, 42		178.271,54
		Mountain-200 Black, 46		89.750,50
		Mountain-200 Silver, 38		116.828,07
		Mountain-200 Silver, 42		156.991,24
		Mountain-200 Silver, 46		154.570,99
		Mountain-300 Black 38		44.062.50

5.3.4 Formatting for Virtual Hierarchies

The virtual hierarchies are accessible on the tab "Hierarchies":

Formatting	‹
Table Hierarchies Measures	
12 🔛 🖬	Apply Formatting
🗄 过 Account	Automatic level colors
🗄 [Customer	
🕀 🔯 Date	Grey Alternating
Delivery Date	Bold font on all levels except last visible
🗄 📑 Department	
Destination Currency	
🗄 📴 Employee	
🖶 📴 Geography	
∃ 101 Reseller	
I is Reseller Sales Order Details	
🗄 💓 Sales Channel	
🗄 💓 Sales Reason	
🗄 📴 Sales Summary Order Details	
🗄 📴 Sales Territory	
🗄 💓 Scenario	
🗄 🔯 Ship Date	
🗄 💓 Source Currency	
Σ Virtual Hierarchy	
Σ Default Level	
	OK Cancel

Let us make an example using a virtual hierarchy with levels "Date/Date.Month" of "Year" and "Product/Color":

Столбцы 😫 🗕 +	Date/Date.Calendar 👻	ate/Date.Calendar 🗸 🔀 – Date/Date.Month of Year 👻 🗔 🗙 – Product/Color 👻 🕵 🗙						
Строки 😫 - +	Geography 👻 🕵 🗙	eography + 🗔 ×						
Строки / Столбцы Фил	отры Сортировка							
Контекст		+ CY 2007						
S > Product/Prod (X)	Geography	January				February		
e s froddegriodin 🖓 K		Black	Red	Silver	Yellow	Black	Red	Silver
	🕂 Canada	94,420.46\$	46,192.93\$	41,014.11\$	17,407.61\$	152,348.12\$	119,088.85\$	19,885.63\$
	+ France	25,927.94\$	1,879.18\$	2,485.70\$		49,699.08\$	35,941.83\$	23,614.18\$
	🕂 United Kingdom	13,222.25\$	13,210.86\$		5,402.36\$	57,717.11\$	29,278.92\$	19,885.63\$
l	🕂 United States	440,395.57\$	253,942.45\$	147,179.34\$	69,030.19\$	802,887.35\$	445,928.24\$	215,013.36\$
Image: Constraint of the states 440,395.57\$ 253,942.45\$ 147,179.34\$ 69,030.19\$ 802,887.35\$ 445,928.24\$ 215,013.36\$ Показатели Reseller Sales Amount ▼ X X								





The table will look like this:

Columns 🗄 - + Date/Date.Calendar - 🗔 × - Date/Date.Month of Year - 🗔 × - Product/Color - 🗔 ×									
Rows 🗄 - + Geography - 🔍 ×									
Sorting								_	
	+ CY 2007								
Geography	January				February				
	Black	Red	Silver	Yellow	Black	Red	Silver	Ye	
🕂 Canada	94,420.46\$	46,192.93\$	41,014.11\$	17,407.61\$	152,348.12\$	119,088.85\$	19,885.63\$		
+ France	25,927.94\$	1,879.18\$	2,485.70\$		49,699.08\$	35,941.83\$	23,614.18\$		
🕂 United Kingdom	13,222.25\$	13,210.86\$		5,402.36\$	57,717.11\$	29,278.92\$	19,885.63\$		
+ United States	440,395.57\$	253,942.45\$	147,179.34\$	69,030.19\$	802,887.35\$	445,928.24\$	215,013.36\$		
	Date/Date.Calendar - Geography - 🚱 × Sorting Geography + Canada + France + United Kingdom + United States	Date/Date.Calendar - (G × - Date/Da Geography - (G ×) Sorting Geography - (G ×) Geography - (G ×) Geography - (G ×) Black + CY 2007 January Black + Cranada 94,420.46\$ + France 25,927.94\$ + United Kingdom 13,222.25\$ • United States 440,395.57\$	Date/Date.Calendar - 😨 × - Date/Date.Month of Year - Geography - 😨 × Sorting Geography Canada 94,420.46\$ 46,192.93\$ + France 25,927.94\$ 1,879.18\$ + United Kingdom 13,222.25\$ 13,210.86\$ + United States 440,395.57\$ 253,942.45\$	Date/Date.Calendar ~ () × - Date/Date.Month of Year ~ () × - Product, Geography ~ () × Sorting Geography H CY 2007 January Black Red France 25,927.94\$ + United Kingdom 13,222.25\$ 13,210.86\$ + United States	Date/Date.Calendar • 🔞 × - Date/Date.Month of Year • 🔞 × - Product/Color • 🔞 × Geography • 🔞 × Sorting	Date/Date.Calendar • () × - Date/Date.Month of Year • () × - Product/Color • () × Geography • () × Sorting Geography () × Geography () × Back Red Silver Yellow Black Red Silver Yellow Black Red Silver Yellow Black 152,348.12\$ + France 25,927.94\$ Yunited Kingdom 13,222.25\$ Yunited States 440,395.57\$ Z53,942.45\$ 147,179.34\$ Gey,030.19\$ 802,887.35\$	Date/Date.Calendar ~ (2) × - Date/Date.Month of Year ~ (2) × - Product/Color ~ (2) × Geography ~ (2) × Sorting Geography (2) × Geography (2) × Black Red Solution Yellow Black Red Yellow Black Solution Yellow Yellow Black Yellow Solution Yellow Solution Yellow Yellow Yellow Yellow Yellow Yellow	Date/Date.Calendar ~ () × - Date/Date.Month of Year ~ () × - Product/Color ~ () × Geography ~ () × × Sorting CY 2007 February Black Red Silver Yellow Black Red Silver Canada 94,420.46\$ 46,192.93\$ 41,014.11\$ 17,407.61\$ 152,348.12\$ 119,088.85\$ 19,885.63\$ + France 25,927.94\$ 1,879.18\$ 2,485.70\$ 49,699.08\$ 35,941.83\$ 23,614.18\$ + United Kingdom 13,222.25\$ 13,210.86\$ 5,402.36\$ 57,717.11\$ 29,278.92\$ 19,885.63\$ + United States 440,395.57\$ 253,942.45\$ 147,179.34\$ 69,030.19\$ 802,887.35\$ 445,928.24\$ 215,013.36\$	

Let us set up formatting for virtual hierarchies:



At the first sight this action changes nothing. But as soon as we merge two hierarchies, the table will look like this:

Columns 🗧 - + Date/Date.Calendar - 🗔 × Date/Date.Month of Year 🗔 × Product/Color 🗔 ×												
Rows 🗄 - + Geography - 🔇 ×												
Rows / Columns Filter Sorting												
Context		+ CY 2007										
C > Product/Prod	Geography	 January 	January				 February 	February				
			Black	Red	Silver	Yellow		Black	Re			
	🕂 Canada	199,035.11\$	94,420.46\$	46,192.93\$	41,014.11\$	17,407.61\$	317,133.88\$	152,348.12\$				
	+ France	30,292.82\$	25,927.94\$	1,879.18\$	2,485.70\$		114,657.46\$	49,699.08\$				
	🕂 United Kingdom	31,835.47\$	13,222.25\$	13,210.86\$		5,402.36\$	110,483.24\$	57,717.11\$				
	+ United States	910,547.55\$	440,395.57\$	253,942.45\$	147,179.34\$	69,030.19\$	1,612,093.79\$	802,887.35\$				
Measures												
Deceller Cales Amount												
Reseller Sales Amount * X												

As our experience shows, there is only one virtual hierarchy in most of the cases. But if there are two or more of them, the settings will be applied just to the most right of them. Example:

Columns 🗄 - + Geography + 🔍 ×												
Rows 🗲 Prod	uct/Model Name 🗔 🗙	Product/Produc	t Key 🗔 🗙	+ Date/Date.Cal	endar 👻 🕵 🗙 Pro	duct/Color 🗔 × D	ate/Date.Month of 1	/ear 🕵 🗙				
Rows / Columns Filter Sorting												
Context	Product/Model Na	Date/Date	Product/Co	🕂 Australia	🕂 Canada	+ France	🕂 Germany	🕂 United King 💽 (
	🖃 Chain	+ CY 2004	Silver	\$400.75	\$461.47	\$485.76	\$206.45	\$230.74 🔺				
			January	\$12.14	\$72.86							
Manauraa			February		\$48.58	\$133.58	\$12.14					
Measures			March	\$145.73	\$60.72	\$36.43	\$48.58	\$85.01				
Reseller Sales Amount ×			April	\$48.58	\$194.30		\$24.29	\$85.01				
			May		\$36.43	\$242.88	\$48.58	\$12.14				
			June	\$194.30	\$48.58	\$72.86	\$72.86	\$48.58				
	CH-0234	+ CY 2004	Silver	\$400.75	\$461.47	\$485.76	\$206.45	\$230.74				
			January	\$12.14	\$72.86							
			February		\$48.58	\$133.58	\$12.14					
			March	\$145.73	\$60.72	\$36.43	\$48.58	\$85.01				
	. e		April	\$48.58	\$194.30		\$24.29	\$85.01				
	i i i i i i i i i i i i i i i i i i i		May		\$36.43	\$242.88	\$48.58	\$12.14				
			June	\$194.30	\$48.58	\$72.86	\$72.86	\$48.58				
	Classic Vest	+ CY 2004	- Blue	\$6,295.05	\$18,901.08	\$7,831.82	\$8,364.52	\$7,916.96				
			January	\$190.50	\$1,305.41	\$609.60	\$838.20	\$990.60				
			February	\$304.80	\$2,552.70	\$1,816.74	\$1,682.43	\$800.10				
			March	\$1,702.12	\$3,070.40	\$495.30	\$495.30	\$1,423.72				
			April	\$76.20	\$2,102.22	\$1,092.52	\$1,554.64	\$1,499.92				
			e May	\$647.70	\$5,380.42	\$2,865.17	\$2,879.55	\$876.30				
			🚡 June	\$3,373.74	\$4,489.93	\$952.50	\$914.40	\$2,326.32				
	tg VE-C304-M	+ CY 2004	Blue	\$1,632.25	\$6,262.37	\$2,528.62	\$2,721.13	\$2,628.90				
	Š		January		\$342.90	\$304.80	\$266.70	\$457.20				
	ssic		February		\$800.10	\$533.40	\$342.90	\$152.40				
Highlight	a la		5 March	\$381.00	\$800.10	\$190.50	\$228.60	\$533.40				
			Anril									

Columns 闊 🗕	Columns 🖹 - + Geography - 🕵 × - + Date/Date.Calendar - 🕵 ×										
Rows 🐔 Product/Model Name 🗔 × Product/Product Key 🗔 × Product/Color 🗔 × Date/Date.Month of Year 🗔 ×											
Rows / Columns Filter Sorting											
Context	Pr	rodu	Jct/	/Model	+ Australia	+ Canada	+ France	+ Germany	🕂 United King	+ United States	
	Na	ame	e, P	roduct/Pro	+ CY 2004	+ CY 2004	+ CY 2004	+ CY 2004	+ CY 2004	+ CY 2004	
	E]Ch	ain	1	\$400.75	\$461.47	\$485.76	\$206.45	\$230.74	\$1,906.61	
		Ξ	СН	1-0234	\$400.75	\$461.47	\$485.76	\$206.45	\$230.74	\$1,906.61	
Measures			-	Silver	\$400.75	\$461.47	\$485.76	\$206.45	\$230.74	\$1,906.61	
Reseller Sales Amount 🛛 🗙			-	January	\$12.14	\$72.86				\$206.45	
				February		\$48.58	\$133.58	\$12.14		\$279.31	
				March	\$145.73	\$60.72	\$36.43	\$48.58	\$85.01	\$400.75	
		8		April	\$48.58	\$194.30		\$24.29	\$85.01	\$121.44	
	ain	ę	ver	May		\$36.43	\$242.88	\$48.58	\$12.14	\$315.74	
	15	F	ŝ	June	\$194.30	\$48.58	\$72.86	\$72.86	\$48.58	\$582.91	
	E]Cla	ass	ic Vest	\$6,295.05	\$18,901.08	\$7,831.82	\$8,364.52	\$7,916.96	\$42,498.65	
		-	VE	-C304-M	\$1,632.25	\$6,262.37	\$2,528.62	\$2,721.13	\$2,628.90	\$12,869.75	
	ŧ.			Blue	\$1,632.25	\$6,262.37	\$2,528.62	\$2,721.13	\$2,628.90	\$12,869.75	
			-	January		\$342.90	\$304.80	\$266.70	\$457.20	\$1,866.90	
				February		\$800.10	\$533.40	\$342.90	\$152.40	\$1,311.43	
		Σ		March	\$381.00	\$800.10	\$190.50	\$228.60	\$533.40	\$1,485.90	
		Š.		April	\$76.20	\$776.02	\$304.80	\$647.70	\$533.40	\$2,642.92	
		ę	e	May		\$1,953.11	\$890.32	\$1,006.63	\$419.10	\$2,857.50	
		3	E	June	\$1,175.05	\$1,590.14	\$304.80	\$228.60	\$533.40	\$2,705.10	
		Ξ	VE	-C304-S	\$4,662.80	\$12,638.71	\$5,303.20	\$5,643.40	\$5,288.06	\$29,628.90	
			Ξ	Blue	\$4,662.80	\$12,638.71	\$5,303.20	\$5,643.40	\$5,288.06	\$29,628.90	
	t	10		January	\$190.50	\$962.51	\$304.80	\$571.50	\$533.40	\$4,596.03	
	No.	4-		February	\$304.80	\$1,752.60	\$1,283.34	\$1,339.53	\$647.70	\$3,439.01	
	sic	8		March	\$1,321.12	\$2,270.30	\$304.80	\$266.70	\$890.32	\$4,377.44	
Highlight	as	1	пe	April		\$1,326.20	\$787.72	\$906.94	\$966.52	\$4,810.06	
	ΠŪ	2	8	Mav	¢647 70	¢3 407 30	¢1 974 85	¢1 872 93	¢457.20	¢6 893 14	

This version is more readable:

5.3.5 Formatting priorities

There are several rules:

- Highlight rules have the biggest priority;
- The measure body formatting have the middle priority;
- Level formatting rules have the lowest priority.

If there are several format rules and some of them are in rows, then the priority belongs to the object which is at the right side.

If there are two hierarchies – one of them is on rows, the other one is on columns, the higher priority will belong to the one which is on rows.

5.3.6 Table Separators

There is one more tab for levels, measures and measure headers: the "Separators" tab. The tab allows to set the thickness and color for the lines and separators.

Let us look at the example with the following selection on rows and columns:



The columns have this:

Member Selector: Geography									
Selection Filter Sorting Options									
😑 💫 🗌 All Geographies									
🕀 🎱 🥅 Australia									
🕀 🎱 🔽 Canada									
🕀 🌑 🔚 France									
🕀 🎱 🔄 Germany									
🕀 🔍 🔽 United Kingdom									
🕀 🌙 🔄 United States									

The context contains "Bike" category, measures "Reseller Sales Amount" and "Reseller Gross Profit Margin" are groupped on columns. There are some formatting rules in this report:

Columns 🗄 🗕 + G	Geo	gra	aphy	y -	🗔 × Reseller Sales A	mount + × Reselle	er Gross Profit Margir	n - ×		
Rows 🗄 + Date/Date.Calendar - 😡 ×										
Rows / Columns Filter S	Sort	ting		_						
Context	_	_				🕂 Canada		🕂 United Kingdo	m	
								Reseller		
< > Product/Prod (X	Date/Date.Calendar			te.	Calendar	Reseller Sales Amount	Reseller Gross Profit Margin	Reseller Sales Amount	Reseller Gross Profit Margin	
Measures	-	All	Pe	rio	ds	11,636,380.59\$	-0.96%	3,405,747.21\$	-2.33%	
Reseller Sales Amount 📼 🗙				J.	+ July 2005	99,240.99\$	2.06%			
Reseller Gross Profit 👻 🗙				δ	+ August 2005	293,581.57\$	3.20%			
			8	ဗ	+ September 2005	182,503.16\$	4.86%			
		8	2	J.	+ October 2005	210,463.22\$	2.63%			
		8	6	6	+ November 2005	356,669.19\$	1.60%			
		5	Ŧ	8	+ December 2005	228,263.14\$	3.24%			
				J.	+ January 2006	154,028.98\$	1.87%			
				6	🕂 February 2006	257,729.62\$	2.13%			
			ğ	윤	+ March 2006	317,344.58\$	4.02%			
			2	J.	🕂 April 2006	204,146.65\$	1.49%			
			б	6	+ May 2006	351,100.57\$	2.16%			
			로	8	+ June 2006	153,851.87\$	-85.73%			
				J.	+ July 2006	479,438.41\$	-0.08%	51,957.40\$	-14.07%	
				б	+ August 2006	492,292.14\$	-1.62%	129,609.83\$	4.68%	
			ğ	ဗ	+ September 2006	423,524.25\$	4.54%	163,802.95\$	5.53%	
		8	5	÷	+ October 2006	279,912.93\$	2.87%	52,619.97\$	-3.35%	
		8	ۍ	δ	+ November 2006	418,694.64\$	-0.11%	113,601.65\$	3.98%	
		5	Ŧ	8	+ December 2006	406,219.35\$	4.22%	135,096.55\$	5.62%	
				÷	+ January 2007	199,035.11\$	2.84%	31,835.47\$	-2.70%	
				δ	+ February 2007	317,133.88\$	-0.31%	110,483.24\$	4.14%	
			8	珨	+ March 2007	364,260.16\$	3.74%	101,555.55\$	4.05%	
			Ř	. :	+ April 2007	331,660.60\$	2.67%	36,593.19\$	-3.78%	
			δ	δ	+ May 2007	383,633.35\$	-1.14%	88,345.05\$	3.55%	
			분	8	+ June 2007	361,317.28\$	3.94%	98,668.13\$	4.21%	
				. :	+ July 2007	323,880.30\$	-2.59%	109,515.73\$	-7.81%	
				δ	+ August 2007	417,468.04\$	-8.70%	165,331.22\$	-22.81%	
			8	õ	+ September 2007	481,061.08\$	-13.51%	354,387.85\$	-9.38%	
		5	Ř	. :	+ October 2007	304,682.83\$	1.56%	86,694.68\$	-1.29%	
		8	δ	δ	+ November 2007	348,184.80\$	-2.70%	169,794.19\$	-1.41%	
		₽	Ŧ	8	+ December 2007	585,348.29\$	0.46%	345,192.03\$	-1.11%	
				.:	+ January 2008	182,175.71\$	1.00%	62,795.49\$	-1.89%	
				ζ	+ February 2008	286,623.55\$	-1.33%	135,123.76\$	-1.31%	
	sp		008	5	+ March 2008	397,203.02\$	0.43%	267,165.52\$	-1.16%	
	5	80	2	÷	+ April 2008	279,128.55\$	0.35%	84,741.91\$	-1.20%	
	Ре	8	δ	ΰ	+ May 2008	322,990.16\$	-2.01%	163,301.44\$	-2.94%	
	₹	5	표	8	+ June 2008	441,588.63\$	-1.28%	347,534.43\$	-3.57%	
🟮 Formatting		x								
---	---	--								
Table Hierarchies Measures										
	Header Body	Separators								
🗄 💓 Account										
🕀 😥 Customer	Row separator									
🗆 🔯 Date	Thickness:	<u>_3</u>								
🗆 🚞 Calendar	Color:	128, 128, 128								
🖃 👬 Date.Calendar										
∃Σ (All)	📃 Column separate	or								
Calendar Year	Thickness:	2 🌲								
Calendar Seme	Color:									
# Month										
Jate Date	Row line									
🗄 🟥 Date.Calendar We	Thickness:	2 🔹								
🕀 🔢 Date.Calendar Qu	Color:	Black								
🕀 🚆 Date.Calendar Se		Diala								
🗄 👘 Date.Calendar We	Column line									
🕀 🔛 Date.Calendar Year	Thickness:	2 🛟								
🕀 🛄 Fiscal	Color:	Black								
Date.Date		La produits								
B Bate.bay Name										
§ Formatting		x								
Formatting Table Hierarchies Measures		×								
 Formatting Table Hierarchies Measures I III IIII IIIIIIIIIIIIIIIIIIIIIIIIII	Header Body	Separators								
Formatting Table Hierarchies Measures Z Z Z D Count	Header Body	Separators								
Formatting Table Hierarchies Measures	Header Body	Separators								
Formatting Table Hierarchies Measures Comparison of the service o	Header Body	Separators								
Formatting Table Hierarchies Measures C Customer C C	Header Body	Separators								
Formatting Table Hierarchies Measures Account Customer Custome	Header Body Row separator Thickness: Color:	Separators								
 Formatting Table Hierarchies Measures I Measures 	Header Body Row separator Thickness: Color: Column separate	Separators								
 Formatting Table Hierarchies Measures I Account I Account<th>Header Body Row separator Thickness: Color: Column separator Thickness:</th><th>Separators</th>	Header Body Row separator Thickness: Color: Column separator Thickness:	Separators								
 Formatting Table Hierarchies Measures Account Account Account Customer Customer Calendar Calendar Calendar Year Calendar Seme Calendar Quarter 	Header Body Kow separator Thickness: Color: Column separator Thickness: Color:	Separators 2 \$ 192, 192, 192 r Transparent								
 Formatting Table Hierarchies Measures 	Header Body Row separator Thickness: Color: Colorn Thickness: Color:	Separators 2 * 192, 192, 192 r 7 17ansparent								
 Formatting Table Hierarchies Measures Account Account Customer Customer Calendar Calendar Calendar Year Calendar Year Calendar Seme Calendar Seme Calendar Quarter Month Date 	Header Body Row separator Thickness: Color: Column separator Thickness: Color: Color: Row line	Separators 2 \$ 192, 192, 192 r Transparent								
 Formatting Table Hierarchies Measures Account Account Customer Customer Calendar Calendar Calendar Year Calendar Year Calendar Seme Calendar Seme Calendar Seme Calendar We 	Header Body Row separator Thickness: Color: Color: Color: Color: Row line Thickness:	Separators 2 \$ 192, 192, 192 or 7 Transparent 2 \$ 3 2 \$ 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3								
Formatting Table Hierarchies Measures ¹	Header Body Row separator Thickness: Color: Color: Color: Row line Thickness: Color:	Separators								
Formatting Table Hierarchies Measures Image: Construction of the second sec	Header Body Row separator Thickness: Color: Color: Color: Row line Thickness: Color: Color:	Separators								
 Formatting Table Hierarchies Measures 	Header Body Kow separator Thickness: Color: Column separator Thickness: Color: Row line Thickness: Color: Color: Color: Color: Color: Color: Color: Color:	Separators 2 \$ 192, 192, 192 Transparent 2 \$ Black								
Formatting Table Hierarchies Measures Image: Construction of the second sec	Header Body Kow separator Thickness: Color: Color: Color: Row line Thickness: Color: Color: Color: Color: Color: Color: Color:	Separators 2 \$ 192, 192, 192 Transparent 2 \$ Black 2 \$								
Formatting Table Hierarchies Measures Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Component of the system Image: Compon	Header Body Row separator Thickness: Color: Color: Row line Thickness: Color:	Separators								
Formatting Table Hierarchies Measures Image: Construction of the second sec	Header Body Row separator Thickness: Color: Color: Color: Row line Thickness: Color: Color: Color: Color: Color: Color: Color:	Separators								
Formatting Table Hierarchies Measures Image: Construction of the second sec	Header Body Row separator Thickness: Color: Color: Row line Thickness: Color:	Separators								

Let us set up the following parameters for separators and levels:



Our report will now look like this:

Columns 🖺 🗕 +	Ge	ogr	aph	y .	- 🕵 × Reseller Sales A	Amount + × Reselle	r Gross Profit Margin	* X	
Rows 😫 🕇 Da	ite/I	Date	e.Ca	alen	dar 👻 🕵 🗙				
Rows / Columns Filter	So	rtin	9						
Context			_			🕂 Canada		🕒 United Kingdo	m
C > Product/Prod			10		Colordon	Reseller		Reseller	
	ľ	ate,	/Da	ate	.Calendar	Reseller Sales Amount	Reseller Gross Profit Margin	Reseller Sales Amount	Reseller Gross Profit Margin
Measures	E	A	l Pe	eric	ods	11,636,380.59\$	-0.96%	3,405,747.21\$	-2.33%
Reseller Sales Amount 👒 🗙				:	1 July 2005	99,240,99\$	2.06%		
Reseller Gross Profit 👻 🗙				5	+ August 2005	293,581,57\$	3.20%		
			60	8	+ September 2005	182,503.16\$	4.86%		
		ß	2	-	+ October 2005	210,463,22\$	2.63%		
		2	רי ב	5	+ November 2005	356,669.19\$	1.60%		
		≿	H	8	+ December 2005	228,263.14\$	3.24%		
				:	+ January 2006	154,028.98\$	1.87%		
				¦≿	+ February 2006	257,729.62\$	2.13%		
			9	뒁	+ March 2006	317,344.58\$	4.02%		
			20	:	+ April 2006	204,146.65\$	1.49%		
			5	5	+ May 2006	351,100.57\$	2.16%		
			ᅻ	6	+ June 2006	153,851.87\$	-85.73%		
			-	. :	+ July 2006	479,438.41\$	-0.08%	51,957.40\$	-14.07%
				5	+ August 2006	492,292.14\$	-1.62%	129,609.83\$	4.68%
			80	8	+ September 2006	423,524.25\$	4.54%	163,802.95\$	5.53%
		8	2	3	+ October 2006	279,912.93\$	2.87%	52,619.97\$	-3.35%
		2	°2	5	+ November 2006	418,694.64\$	-0.11%	113,601.65\$	3.98%
	1	_∑	H	Q	+ December 2006	406,219.35\$	4.22%	135,096.55\$	5.62%
					+ January 2007	199,035.11\$	2.84%	31,835.47\$	-2.70%
				5	+ February 2007	317,133.88\$	-0.31%	110,483.24\$	4.14%
			5	뒁	+ March 2007	364,260.16\$	3.74%	101,555.55\$	4.05%
			20	. :	+ April 2007	331,660.60\$	2.67%	36,593.19\$	-3.78%
			5	5	+ May 2007	383,633.35\$	-1.14%	88,345.05\$	3.55%
			로	6	+ June 2007	361,317.28\$	3.94%	98,668.13\$	4.21%
					+ July 2007	323,880.30\$	-2.59%	109,515.73\$	-7.81%
				5	+ August 2007	417,468.04\$	-8.70%	165,331.22\$	-22.81%
			6	8	+ September 2007	481,061.08\$	-13.51%	354,387.85\$	-9.38%
		6	2	J	+ October 2007	304,682.83\$	1.56%	86,694.68\$	-1.29%
		20	0	0	+ November 2007	348,184.80\$	-2.70%	169,794.19\$	-1.41%
		5	Ŧ	8	+ December 2007	585,348.29\$	0.46%	345,192.03\$	-1.11%
				3	+ January 2008	182,175.71\$	1.00%	62,795.49\$	-1.89%
				ۍ ا	+ February 2008	286,623.55\$	-1.33%	135,123.76\$	-1.31%
	s S		008	5	+ March 2008	397,203.02\$	0.43%	267,165.52\$	-1.16%
	li	8	2	3	+ April 2008	279,128.55\$	0.35%	84,741.91\$	-1.20%
	Pe	2	0	0	+ May 2008	322,990.16\$	-2.01%	163,301.44\$	-2.94%
	F	6	Ŧ	0	+ June 2008	441,588.63\$	-1.28%	347,534.43\$	-3.57%

Let us move the dimension from context to columns and change the selection:

Member Selector: Product/Product Categories	x
Selection Filter Sorting Options	
Ξ Σ All Products	
🕀 🔍 🔽 Accessories	
🕀 🕒 🔽 Bikes	
🗄 🌒 🗌 Clothing	
🕀 🎱 📃 Components	

Formatting		×
Table Hierarchies Measures		
1 4 🔛	Header Body	Separators
🖶 🧰 History 🕀 🧰 Stocking	Row separator	
🗆 🚆 Product Categories	Thickness:	2 🍦
Σ (All)	Color:	Transparent -
Category Subcategory	Column separat	pr
Product Product	Thickness:	2 🗘
Product	Color:	255, 0, 0 🔹
Category Large Photo Model Name	Row line	2 🗍
e Product Line	Color:	Black
Subcategory	Column line	
🗄 💓 Promotion	Thickness:	2 🗘
 ⊕ Reseller ⊕ Reseller Sales Order Details ⊕ P ⊕ Sales Channel 	Color:	Black

Then let us configure the following settings for separators:

The report will look like this:

Columns 🗮 - + Pro	Columns 😫 🦰 + Product/Product Categories + 🗔 × 🗧 + Geography + 🗔 × Reseller Sales Amount + × Reseller Gross Profit Margin + ×								
Rows 🗮 + Date/D	Rows 🗃 + Date/Date.Calendar - 😡 ×								
Rows / Columns Filter So	orting								
Contaut		Accessories				- Bikes			
Context		+ Canada		🕞 United Kingdo	m	+ Canada		🕞 United Kingdo	m
D	ate/Date.Calendar	Reseller		Reseller		Reseller		Reseller	
		Reseller Sales	Reseller Gross	Reseller Sales	Reseller Gross	Reseller Sales	Reseller Gross	Reseller Sales	Reseller Gross
Measures		Amount	Profit Margin	Amount	Profit Margin	Amount	Profit Margin	Amount	Profit Margin
Reseller Sales Amount 🔹 👻 🔚	All Periods	118,127.35\$	34.41%	42,593.03\$	34.10%	11,636,380.59\$	-0.96%	3,405,747.21\$	-2.33%
Reseller Gross Profit 👻 🗙	: + July 2005	302.80\$	40.42%			99,240.99\$	2.06%		
	G 🕂 August 2005	847.83\$	40.42%			293,581.57\$	3.20%		
	B C + September 2005	908.39\$	40.42%			182,503.16\$	4.86%		
	8 🖸 🗄 🕂 October 2005	524.85\$	40.42%			210,463.22\$	2.63%		
	8 0 0 ⊕ November 2005	1,413.06\$	40.42%			356,669.19\$	1.60%		
	5 H & + December 2005	1,150.63\$	40.42%			228,263.14\$	3.24%		
	: + January 2006	201.87\$	40.42%			154,028.98\$	1.87%		
	G 🕂 February 2006	645.97\$	40.42%			257,729.62\$	2.13%		
	영 중 🕂 March 2006	403.73\$	40.42%			317,344.58\$	4.02%		
	🕺 🗄 🕂 April 2006	363.36\$	40.42%			204,146.65\$	1.49%		
	ວີ ບົ 🕂 May 2006	1,056.06\$	39.64%			351,100.57\$	2.16%		
	〒 ♂ + June 2006	1,069.88\$	40.42%			153,851.87\$	-85.73%		
	: + July 2006	2,502.00\$	15.19%	444.06\$	14.06%	479,438.41\$	-0.08%	51,957.40\$	-14.07%
	ပ် (+ August 2006	4,598.73\$	30.52%	1,259.11\$	31.25%	492,292.14\$	-1.62%	129,609.83\$	4.68%
	September 2006	4,296.20\$	30.69%	345.82\$	31.25%	423,524.25\$	4.54%	163,802.95\$	5.53%
	8 2 : + October 2006	1,809.04\$	30.81%	502.69\$	31.25%	279,912.93\$	2.87%	52,619.97\$	-3.35%
	ດັບົບ (+) November 2006	2,876.77\$	31.25%	1,146.71\$	31.25%	418,694.64\$	-0.11%	113,601.65\$	3.98%
	G H & ⊕ December 2006	2,671.55\$	30.59%	181.68\$	31.25%	406,219.35\$	4.22%	135,096.55\$	5.62%
	: + January 2007	1,412.26\$	31.25%	340.64\$	31.25%	199,035.11\$	2.84%	31,835.47\$	-2.70%
	0 + February 2007	1,560.52\$	31.25%	316.41\$	31.25%	317,133.88\$	-0.31%	110,483.24\$	4.14%
	5 7 + March 2007	899.29\$	31.25%			364,260.16\$	3.74%	101,555.55\$	4.05%
	ິ : ⊕ April 2007	2,192.81\$	28.47%	449.01\$	24.86%	331,660.60\$	2.67%	36,593.19\$	-3.78%
	င် 🕞 May 2007	2,692.74\$	30.92%	1,318.05\$	30.58%	383,633.35\$	-1.14%	88,345.05\$	3.55%

Separator Priority Rules

- 1) Separators of the higher level have priority over separators on the lower level. By "higher" we mean the "higher visible level that is at the left on rows/columns".
- 2) At the same level the separator has higher priority over the line

5.4 Using Advanced Designers

In the chapter "Change of the Page Structure" we have already reviewed the definition of a designer and the ways of using basic designers. Now let's review the advanced designers: "Filter" and "Sorting". Those two designers are situated near the "Rows / Columns" designer:



5.4.1 Filter

	"Filter"	can be	invoked	both	from	the	context	menu	of the	e header:
--	----------	--------	---------	------	------	-----	---------	------	--------	-----------

Columns 🛱 🗕 +	Date/Date.Calen	lar + 🔞 x				
Rows 🗎 🗕 +	Product/Product (Categories 👻 🗔 🗙				
Rows / Columns Filter	1 Sorting					Top 10
Context	Product/Pro	+ CY 2006	+ CY 2007	_	CY 2008	T 50
Context	Road Bikes	10,765,176.58\$	11,294	Dril	lby ▶	1 op 50
	Mountain Bi	9,190,838.09\$	8,854	Deil	Lby on New Dage	Top 100
	Touring Bikes		5,403		i by off New Page 🖌	Ton V
	Mountain Fr	1,400,331.68\$	2,067	Dril	l Up	Торх
	Road Frames	1,618,391.51\$	1,631			Top 80%
	Touring Fra		1,032	Dril	I Down	Top V%
	Jerseys	110,243.77\$	290	Hid	e Item	Top X/6
	Wheels	452,122.12\$	226		c item	Bottom X
Measures	Shorts	49,261.57\$	179	Kee	p Only This	D. H. 2007
Receiver Sales Amount	Vests		131	Hid	e Siblings	Bottom 20%
Reseller Sales Alliourit X	Cranksets		124			Bottom X%
	Bike Racks		118	Sho	w All Children	
	Helmets	74,281.39\$	113	She	w lovel N	Non-empty values
	Gloves	88,796.06\$	102	Sile	W LEVEI	Empty values or 0
	Pedals		94 🞑	Me	mber Selector	
	Handlebars	53,642.70\$	88		•	= X
	Tights	122,895.93\$	78	Act	ions	
	Bib-Shorts	101,862.71\$	64 🏤	Sor	ting 🕨	
	Brakes		45		ing ,	> X
	Derailleurs		44 🟹=	Filt	er 💦 🕨	N-X
	Hydration P		41 🛃	For	matting •	~- A
	Saddles		37,			< X
	Bottom Brac		30,792	2.82\$	21,033.55\$	<- X
	Forks	49,672.62\$	28,259).07\$		3- 6
	Headsets	35,931.84\$	25,010).36\$		X <= Value <= Y
	Caps	9,387.61\$	13,800).95\$	5,665.91\$	Curtain Canditian
	Socks	3,139.50\$	10,793	3.76\$	7,271.66\$	Custom Condition
	Cleaners		6,733	3.09\$	4,455.28\$	Add Filter of Rows (Expert Mode)
	Locks	10,084.70\$	6,140).52\$		
	Chains		5,685	i.93\$	3,691.78\$	Remove All Filters of Rows
Highlight	Pumps	8,369.26\$	5,145	5.43\$		Deactivate All Filters of Rows
	A		A 101	224	2 005 27#	- Coctivate Air Friters of Rows
Hable 1	(4) 💦 📷 TreeMa	21				Activate All Filters of Rows

and from the context menu of the tab "Filter":

Columns							
Rows						1	
			Add Filter o	f Rows			
Rows / Column	ns Filter		Remove All	Filters of Rows	_		
Context						CY 2007	+ CY 2008
			Deactivate	All Filters of Rows		.294,381.37\$	4,448,636.90\$
			Activate All	Filters of Rows		854,263.03\$	3,902,246.74\$
	l	-			_	403,130.67\$	5,048,359.55\$
		Mo	ountain Fr	1,400,331.68\$	2	,067,908.64\$	873,844.03\$
		Ro	ad Frames	1,618,391.51\$	1	,631,377.27\$	356,197.37\$
		То	uring Fra		1	,032,154.04\$	610,173.64\$
		Je	rseys	110,243.77\$		290,004.73\$	150,804.63\$
		W	heels	452,122.12\$		226,947.94\$	
Measures		Sh	iorts	49,261.57\$		179,301.33\$	113,639.82\$
Receller Sales A	mount X	Ve	sts			131,993.28\$	91,808.09\$
Reseller Jales A	mount A	Cr	anksets			124,249.27\$	79,693.34\$
1		Bil	ke Racks			118,428.47\$	79,307.69\$
1		He	Imets	74,281.39\$		113,443.66\$	50,752.52\$
1		GI	oves	88,796.06\$		102,156.07\$	16,823.04\$
1		Pe	dals			94 060 53\$	53 423 38¢

Columns					
2 Condining	Add Filter of (Columns	-		
Rows	Remove All Fi	ilters of Columns			
Rows / Columns Filte	Deactivate Al	Filters of Column	s		
Context	Activate All Fi	ilters of Columns		2007	+ CY 2008
	Those onces	10,100,110,000	2212	94,381.37\$	4,448,636.90\$
	Mountain Bi	9,190,838.09\$	8,8	54,263.03\$	3,902,246.74\$
	Touring Bikes		5,4	03,130.67\$	5,048,359.55\$
	Mountain Fr	1,400,331.68\$	2,0	67,908.64\$	873,844.03\$
	Road Frames	1,618,391.51\$	1,6	31,377.27\$	356,197.37\$
	Touring Fra		1,0	32,154.04\$	610,173.64\$
	Jerseys	110,243.77\$	2	90,004.73\$	150,804.63\$
	Wheels	452,122.12\$	2	26,947.94\$	
Measures	Shorts	49,261.57\$	1	79,301.33\$	113,639.82\$
Receller Sales Amount	Vests		1	31,993.28\$	91,808.09\$
Reseller Sales Amount X	Cranksets		1	24,249.27\$	79,693.34\$
	Bike Racks		1	18,428.47\$	79,307.69\$
	Helmets	74,281.39\$	1	13,443.66\$	50,752.52\$
	Gloves	88,796.06\$	1	02,156.07\$	16,823.04\$
	Pedals			94,060.53\$	53,423.38\$

There are several filtering options here:



In the sections 1 - 4 there are quick filters:

- Top 10 10 biggest values;
- Top 50 50 biggest values;
- Top 100 100 biggest values;
- Top X X biggest values;
- Top 80% the biggest values whose sum is not less than 80% of the total sum;
- Top X% the biggest values whose sum is not less than X% of the total sum;
- Bottom X X bottom values;
- Bottom 20% the lowest elements whose sum is 20% of the values;
- Bottom X% the lowest elements whose sum is X% from the total sum;
- Non-empty values show all elements except those which have empty values;

- Empty values or 0 show all elements which are either empty or 0;
- =X values equal to X;
- <> X values not equal to X;
- > X values more than X;
- >= X values more or equal to X;
- < X values less than X;
- <= X values less or equal to X;
- X <= value <= Y values in the range from X to Y.

If you select "Custom Condition..." you will get a window which allows to select the filtering condition and the arguments:

🟮 Quick Filt	ter	x
Condition:	x topmost members (TopCount) -	,
Measure:	Reseller Sales Amount	
X:	1 📫	
	Ignore empty values	
	OK Cancel	

The context menu in section 6 allows to switch on/off all filtering at once.

Columns							After 🔹
Rows							After 🔹
Rows / Columns Filter	Sorting					Top 10	
Rows / Columns Filter Context Measures Reseller Sales Amount ×	Product/Pro Road Bikes Mountain Bi Touring Bikes Mountain Fr Road Frames Touring Fra Jerseys Wheels Shorts Vests Cranksets Bike Racks Helmets Gloves Pedals Handlebars Tights Bib-Shorts	+ CY 2006 10,765,176.58\$ 9,190,838.09\$ 1,400,331.68\$ 1,618,391.51\$ 110,243.77\$ 452,122.12\$ 49,261.57\$ 74,281.39\$ 88,796.06\$ 53,642.70\$ 122,895.93\$ 101,862.71\$	+ CY 2007 11,294 8,854 5,400 2,067 1,631 1,032 290 226 176 131 102 94 88 78 88 78 64 87	Drill by Drill by o Drill Up Drill Up Drill Dow Hide Iter Keep On Hide Sibl Show All Show Let Member Actions Sorting	v 2008 vn New Page vn n ly This lings I Children vel Selector	Top 10 Top 50 Top 100 Top X Top 80% Top X% Bottom X Bottom 20% Bottom 20% Bottom 20% Bottom X% Non-empty values Empty values or 0 = X <> X	
Highlight	Brakes Derailleurs Hydration P Saddles Bottom Brac Forks Headsets Caps Socks Cleaners Locks Chains Pumps	49,672.62\$ 35,931.84\$ 9,387.61\$ 3,139.50\$ 10,084.70\$ 8,369.26\$	45 44 41 37 30,79 28,25 25,01 13,80 10,79 6,73 6,73 6,14 5,68 5,14 4	Filter Formatti 2.82\$ 0.7\$ 0.36\$ 0.95\$ 3.76\$ 3.09\$ 0.52\$ 5.93\$ 5.43\$	ng 21,033.55\$ 5,665.91\$ 7,271.66\$ 4,455.28\$ 3,691.78\$	> X >= X < X <= X X <= Value <= Y Custom Condition Add Filter of Rows (Expert N Remove All Filters of Rows Deactivate All Filters of Rows	<u>Aode)</u>
Table 1 🚺 🚺 Table 1 (4) 🔣 TreeMa	p 1				Activate All Filters of Rows	

It is worth to look at item "Add Filter of Rows (Expert Mode)...":

There will be a form for setting up a filter:

🏮 Filter of F	Rows	×
Name: *	Filter 1	V Active
	Show © Hide	
Condition:	x topmost members (TopCount)	•
Measure:	The first measure among selected	-
X:	1 🗘	
	🕅 Ignore empty values	
Columns		
The conditio	n must be satisfied for:	
🖲 For the	sum of columns	
◎ For at le	east one of the column which are considered (see below)	
© For eac	h column, of those which are considered (see below)	
Which colum	ns consider:	
🖲 Selecter	d columns	
© All visibl	e columns	
Date/Date	e.Calendar: All Periods.CY 2007	😡 🗙
Override Cont	 Pxt	
Override C	ontext for Hierarchy	
	OK	Cancel

This dialog allows not only to select the conditions for filtering and the argument, but also the set of columns to which it is applied:

- All visible columns
- Selected columns

Besides, the condition can be met for:

- For the sum of columns;
- For at least one of the column which are considered (see below) ;
- For each column, of those which are considered (see below).

Let us look at several examples.

Let us assume we want to show only 5 subcategories of goods which were best sold in 2007. Let us compile the report as on the picture below:

Columns 🗄 🗕 +	Date/Date.Calen	dar 👻 🙀 🗙					
Rows 🗄 🗕 +	Product/Product	Categories 👻 🕵 🛪	:				
Rows / Columns Filter Sorting							
Context Product/Pro + CY 2007 + CY 2008							
	Road Bikes	11,294,381.37\$	4,448,636.90\$				
	Mountain Bi	8,854,263.03\$	3,902,246.74\$				
	Touring Bikes	5,403,130.67\$	5,048,359.55\$				
	Mountain Fr	2,067,908.64\$	873,844.03\$				
	Road Frames	1,631,377.27\$	356,197.37\$				
	Touring Fra	1,032,154.04\$	610,173.64\$				
	Jerseys	290,004.73\$	150,804.63\$				
	Wheels	226,947.94\$					
Measures	Shorts	179,301.33\$	113,639.82\$				
Peceller Sales Amount	Vests	131,993.28\$	91,808.09\$				
Reseller Sales Amount X	Cranksets	124,249.27\$	79,693.34\$	1			
	Bike Racks	118,428.47\$	79,307.69\$				
	Helmets	113,443.66\$	50,752.52\$				
	Gloves	102,156.07\$	16,823.04\$				
	Pedals	94,060.53\$	53,423.38\$				
	Handlebars	88,710.99\$	28,237.63\$				
	Tights	78,937.08\$					
	Bib-Shorts	64,876.99\$					
	Brakes	45,187.31\$	20,831.40\$				
	Derailleurs	44,321.13\$	25,888.36\$				
	Hydration P	41,531.96\$	23,986.79\$				
	Saddles	37,831.96\$	17,997.43\$				
	Bottom Brac	30,792.82\$	21,033.55\$				
	Forks	28,259.07\$					
	Headsets	25,010.36\$					
	Caps	13,800.95\$	5,665.91\$				
	Socks	10,793.76\$	7,271.66\$				
	Cleaners	6,733.09\$	4,455.28\$				
	Locks	6,140.52\$					
	Chains	5,685.93\$	3,691.78\$				
	Pumps	5,145.43\$					
	Bottles and	4,481.33\$	2,995.27\$				
	Tires and Tu	628.42\$	296.78\$				

Columns 🗮 🗕 🖬	Date/Date.Calen	dar 👻 🗔 🗙						
Rows 📙 – +	Product/Product	Categories 👻	😡 x					
		-						1
Rows / Columns Filter	1 Sorting						Top 10	
Context	Product/Pro	+ CY 2007					Top 50	
	Road Bikes	11,294	Drill	by			100.00	
	Mountain Bi	8,854	Drill	by on New Page	•		Top 100	
	Touring Bikes	5,403					Top X	
	Mountain Fr	2,067	Drill	Up			10p X	
	Road Frames	1,631	Drill	Down			Top 80%	
	Touring Fra	1,032					Top X%	
	Jerseys	290	Hide	Item				
	Wheels	226	Keen	Only This			Bottom X	
1easures	Shorts	179	кеер	Only This			Bottom 20%	
Reseller Sales Amount X	Vests	131	Hide	Siblings			bottom 2078	
	Cranksets	124 118	Show All Children				Bottom X%	
	Bike Racks		Show All Children					
	Helmets	113	Show	v Level	•		Non-empty values	
	Gloves	102	Manahan Calantan				Empty values or 0	
	Pedals	94 👒	Wember Selector					
	Handlebars	88	Actio	ons	•		= X	
	Tights	78					<> X	
	Bib-Shorts	64 💦	Sorting		•			
	Brakes	45 Filter		Filter			> X	
	Derailleurs	44	Filter		-		>= X	
	Hydration P	41 😽	Form	natting	•			
	Saddies	3/,001		40,707,70 W			< X	
	Bottom Brac	30,792	.82\$	21,033.55\$			<= X	
	Forks	28,259	0/\$				V & Value & V	
	Conc	25,010	.36\$	E 665 014			X <= value <= Y	
	Socks	13,800	1.955	5,665.91\$			Custom Condition	
	Cleaners	10,793	.76\$	7,271.66\$				
	Locks	6,/33	.095	4,455.28\$		-	Add Filter of Rows (Expert Mode)	
	Chains	0,140	.32¢	2 601 794		7	Remarks All Filters of Revue	
Highlight	Rumps	5,005	1.955	2,691.70\$		E	Remove All Filters of Rows	
nigniign	Fumps	5,145	224	2 005 274			Deactivate All Filters of Rows	
Table 1	(4) TreeMa	n 1			_		A C A AN EN AN	Sec.

Let us invoke the context menu for the header CY 2007 and select the item "Filter / Add Filter of Rows (Expert Mode)...":

There will be a dialog for filter settings on the screen:

🧿 Filter of F	Rows	x
Name: *	Filter 1 V Active	
	Show OHide	
Condition:	x topmost members (TopCount)	7
Measure:	The first measure among selected	
X:	5	
	Ignore empty values	
Columns		٩
The conditio	n must be satisfied for:	
For the For the	sum of columns	
© For all e	h column, of those which are considered (see below)	
Which colum	ins consider:	
Selected	d columns	
© All visibl	le columns	
Date/Date	e.Calendar: All Periods.CY 2007 😡 🙀	
Ouenide Cent		
Overnae Cont	ext	٦
Override C	ontext for Hierarchy	
	OK Cancel	

The selected function "X topmost members (TopCount)" is exactly what we need. In the Columns section it is said "For the sum of columns", but we have just one column, so the filtering will be done for the year of 2007. Press «OK» and look at the report:

Columns 📒 🗕 +	Date/Date.Calendar 👻	× 🔊		
Rows 📒 🗕 +	Product/Product Categor	ies 👻 🔯 🗙		
Rows / Columns	Sorting			
Context	Product/Product C	+ CY 2007	+ CY 2008	
	Road Bikes	11,294,381.37\$	4,448,636.90\$	
	Mountain Bikes	8,854,263.03\$	3,902,246.74\$	
	Touring Bikes	5,403,130.67\$	5,048,359.55\$	
	Mountain Frames	2,067,908.64\$	873,844.03\$	
	Road Frames	1,631,377.27\$	356,197.37\$	
Measures Reseller Sales Amount ×				

There is an icon on the tab Filter that shows us that there is a new filter there. If we look at this tab, there is a filter with a name "Filter 1". The table contains exactly 5 categories that are sold best in the year 2007.

Let us make the task more complicated. Assume we want to see those 5 products which are best sold in the sum of years of 2007 and 2008. Click on this icon:

Columns	
Rows	V Filter 1 🐨 🛪
Rows / Colum	ns 7_Filter Sorting

and do	the fe	ollowing	actions	there:
		0		

🖻 Filter of Rows 🛛 🗙	Member Selector: Date/Date.Calence	lar 🗖 🗙
Name: * Filter 1	Selection Options	
Show O Hide	You are currently in offline mode.	Disable offline mode
Condition: x topmost members (TopCount) Measure: The first measure among selected X: 5 Ignore empty values Columns The condition must be satisfied for: For the sum of columns For a least one of the column which are considered (see below)	Date Range Tree All Periode Collapse Siblings to Select Siblings Select Siblings Unselect Siblings Unselect Subtree	o Set
 Por at least one of the column which are considered (see below) For each column, of those which are considered (see below) Which columns consider: Selected columns All visible columns Date/Date.Calendar: All Periods.CY 2007 x Override Context 	Refresh Children Refresh Subtree Find (Ctrl+F	
Override Context for Hierarchy	Show Search >>	OK Cancel

In this window we have to select "For the sum of columns", then click on the member selector for date dimension and select CY 2007 and CY 2008 by first pressing "Refresh Children":



After pressing "OK" the filed for Date dimension will look like this:

Columns
The condition must be satisfied for:
O For the sum of columns
© For at least one of the column which are considered (see below)
© For each column, of those which are considered (see below)
Which columns consider:
Selected columns
© All visible columns
Date/Date.Calendar: (Multiple Selection)

This means that several members are selected. If you press "OK" the report will look like

Columns				After 👻
Rows 🔽 Filter 1 🕼	×			After 👻
Rows / Columns 🏾 🏹 Filter	1 Sorting			
Context	Product/Product C	+ CY 2007	+ CY 2008	
	Road Bikes	11,294,381.37\$	4,448,636.90\$	
	Mountain Bikes	8,854,263.03\$	3,902,246.74\$	
	Touring Bikes	5,403,130.67\$	5,048,359.55\$	
	Mountain Frames	2,067,908.64\$	873,844.03\$	
	Road Frames	1,631,377.27\$	356,197.37\$	
Measures Reseller Sales Amount ×				

Only those product categories which are sold best by the sum of two columns will be displayed.

Filters can be switched on and off:

this:

Columns 🔪	
Rows Filter 1 🗔 ×	
Rows / Columns 7 Filter Sorting	

The selected check box means that the filter is switched on. If you switch it off, it will remain in the report configuration but the filter won't be active, so that the rows will not be filtered.

Using the previous example let us set up the following parameters:

📦 Filter of Rows 🛛 🗙 🗙
Name: * Filter 1
Show
Condition: topmost members whose sum >= x (TopSum)
Measure: The first measure among selected 🔹
X: 12,000,000. \$
Columns
The condition must be satisfied for:
© For the sum of columns
For at least one of the column which are considered (see below)
For each column, of those which are considered (see below)
Selected columns
© All visible columns
Date/Date Calendary (Multiple Selection)
Override Context
Override Context for Hierarchy
OK Cancel

The hierarchy "Date/Date.Calendar:(Multiple Selection)" contains 2007 and 2008 as before. We will get:

Columns					
Rows 🗸 Filter 1	× 😥				
Rows / Columns 🛛 👎 Filt	er 🚺 Sorting				
Context	Product/Product	+ CY 2007	+ CY 2008	Total	
	Road Bikes	11,294,381.37\$	4,448,636.90\$	15,743,018.26	
	Mountain Bikes	8,854,263.03\$	3,902,246.74\$	12,756,509.77	
	Touring Bikes	5,403,130.67\$	5,048,359.55\$	10,451,490.22	
	Total	25,551,775.07	13,399,243.18	38,951,018.26	
				1	
Measures					
Reseller Sales Amount 🛛 🗙					

Here we see the OR-principle: the row will remain in table if one of the columns meets the condition.

If we filter using the parameters below:

🟮 Filter of F	Rows ×
Name: *	Filter 1 🔽 Active
	Show © Hide
Condition:	topmost members whose sum >= x (TopSum) -
Measure:	The first measure among selected 🔹
X:	12,000,000. ‡
	Ignore empty values
Columns	
The conditio	n must be satisfied for:
© For the	sum of columns
© For at le	east one of the column which are considered (see below)
● For eac	n column, of those which are considered (see below)
Which colum	ns consider:
Selecter	d columns
C All visibl	e columns
Date/Date	e.Calendar: (Multiple Selection) 🗔 🛛
Override Cont	ext
Override C	ontext for Hierarchy
	OK Cancel

We will get the following result:

Columns		
Rows 🗸 Filte	r 1 🕵 ×	
Rows / Columns 🏻 💎	Filter 🚺 Sorting	
Context	Product/Product	+ CY 2007 + CY 2008 Total
	Road Bikes	11,294,381.37\$ 4,448,636.90\$ 15,743,018.26
	Mountain Bikes	8,854,263.03\$ 3,902,246.74\$ 12,756,509.77
	Total	20,148,644.40 8,350,883.64 28,499,528.04
	_	
Measures		
Reseller Sales Amount	×	

It is obvious that the last element was removed since it did not meet the condition by two years simultaneously (the AND principle).

Attention!

Filters are the part of page structure. If you create filters on the administrator's page and close the report, all those filters will disappear. If you wish to keep your filters, make a copy of the page and save it.

5.4.2 Sorting

Let's show how to sort rows in the table on the following example report:

Dimensions 🔯 🔛	Columns 😫 🗕 +	Date/Date.Calendar 👻	😡 🛪			
Destination Currency						
🗄 🗾 Employee	Rows 🗄 - +	Product/Product Catego	ories 👻 😡 🗙			
🗄 😥 Geography						
🗄 过 Internet Sales Orde	Rows / Columns Filter	Sorting				
🕀 😥 Organization	Context	Product/Pro 🕂 CY	2003 🕂 CY 2004			
🖃 💓 Product 🔤		🕂 Bike Racks 🛛 \$	118,428.47 \$79,307.69	▲		
🕀 🦺 Manufacture Time		🕂 Bottles a	\$4,481.33 \$2,995.27			
🕀 📫 Product Categor		→ Cleaners	\$6,733.09 \$4,455.28			
Product Model C		+ Helmets \$	113,443.66 \$50,752.52			
A Draduct Model Li		+ Hydration	\$41,531.96 \$23,986.79			
Product Model Li		+ Locks	\$6,140.52			
E Stock Level	Measures	+ Pumps	\$5,145.43			
🕀 🎲 Product	Reseller Sales Amount X	+ Tires and	\$628.42 \$296.78			
🕀 🔛 Category	Reselier Sales Amount A	+ Mountain \$8,8	854,263.03 \$3,902,246.74			
🕀 👖 Class 🔤		+ Road Bikes \$11,	294,381.37 \$4,448,636.90			
Measures D		+ Touring B \$5,4	403,130.67 \$5,048,359.55			
		+ Bib-Shorts	\$64,876.99			
E E KPI		+ Caps	\$13,800.95 \$5,665.91			
🗄 🗖 dme		+ Gloves \$	102,156.07 \$16,823.04			
Amount		+ Jerseys \$2	290,004.73 \$150,804.63			
Average Rate		+ Shorts \$:	179,301.33 \$113,639.82			
🕥 Average Sales Amount		+ Socks	\$10,793.76 \$7,271.66			
\land Average Unit Price		+ lights	\$78,937.08			
Customer Count		+ Vests \$:	131,993.28 \$91,808.09			
		+ Bottom B	\$30,792.82 \$21,033.55			
Discount Amount		+ Brakes	\$45,187.31 \$20,831.40			
S Discourt Percentage			\$5,685.93 \$3,691.78			
End of Day Rate		+ Cranksets \$	124,249.27 \$79,693.34			
Expense to Revenu			\$44,321.13 \$25,888.36			
Evtended Amount			\$28,259.07			
Sets 📃 🖶			\$28,237.63			
🕀 🛅 Sets	Highlight	Mountain to	\$25,010.35			
	riigriiigrit	Dedals \$2,	+04 040 E2 +E2 402 20	•		

Filters are turned off. Product subcategories are on the rows, years – on the columns.

Context	Product/Pro	+ CY 2003	F	1CY 2004
	🕂 Bike Racks	\$118,428		Drill by
	+ Bottles a	\$4,481		Drill by on New Page
	+ Cleaners	\$6,733		Dim by on New Page
	+ Helmets	\$113,443		Drill Up
	+ Hydration	\$41,531		Dill Davia
	+ Locks	\$6,140		Drill Down
Measures	🕂 Pumps	\$5,145		Hide Item
Deceller Sales Amount	🕂 🕂 Tires and	\$628		
Reseller Sales Amount	Mountain	\$8,854,263		Keep Only This
	+ Road Bikes	\$11,294,381		Hide Siblings
	+ Touring B	\$5,403,130		
	+ Bib-Shorts	\$64,876		Show All Children
	+ Caps	\$13,800		Show Level
	+ Gloves	\$102,156		
	+ Jerseys	\$290,004	Q	Member Selector
	+ Shorts	\$179,301		Actions
	+ Socks	\$10,793		Actions
Sort Ascendi	ng (break hierarch	y)	1	Sorting
Sort Descend	ding (break hierarcl	hy)	7.	Filter >
Sort Ascendi	ng (do not break h	ierarchy)	8	Formatting +
Sort Descen	ling (do not break	hierarchy)	27	\$79,693.34
John Descent	ing (ao not break	merareny)	13	\$25,888.36
Add Sorting of Rows (Expert Mode)				
Remove Sort	ting of Rows	99	\$28,237.63	
nemore sorting of nows				+070 044 00
Deactivate S	orting of Rows		64	\$8/3,844.03
Activate Sort	ting of Rows		201	Search.

Using this example report let's sort the rows in the table in the descending order of sales in 2003. Press the right mouse button over the CY 2003 column header:

Select "Add Sorting of Rows (Expert Mode)" from the context menu as shown on the picture above. You will get a dialog that looks like the one you were using to create the filter:

🏮 Sort of	Rows				x
Name: *	Sorting 1			Active	
	C Ascending	Descending		Save Hierarchy	
Columns					
Date/Date.C	alendar: All Periods.CY 20	03		•	•• ×
					=
Override Cor	ntext				
Measures: (I	Default - 'Reseller Sales An	nount')			• X
Override	Context for Hierarchy				
			0	K Cancel	

Note that the time is already selected correctly (that's because we called the context menu for the CY 2003 element). Let's change the sorting order to "Descending" (as in the picture) and leave the field "Save Hierarchy" unchecked. Press OK. You will get the table with the values in the CY 2003 column sorted descending:

Columns			
Rows Sortin	g 1 🗔 ×		
Rows / Columns Filter	1 Sorting		
Context		+ CY 2003	+ CY 2004
	Road Bikes	\$11,294,381.37	\$4,448,636.90
	Mountain Bikes	\$8,854,263.03	\$3,902,246.74
	Touring Bikes	\$5,403,130.67	\$5,048,359.55
	Mountain Frames	\$2,067,908.64	\$873,844.03
	Road Frames	\$1,631,377.27	\$356,197.37
	Touring Frames	\$1,032,154.04	\$610,173.64
	Jerseys	\$290,004.73	\$150,804.63
	Wheels	\$226,947.94	
	Shorts	\$179,301.33	\$113,639.82
	Vests	\$131,993.28	\$91,808.09
	Cranksets	\$124,249.27	\$79,693.34
	Bike Racks	\$118,428.47	\$79,307.69
Measures	Helmets	\$113,443.66	\$50,752.52
Decelles Coles Amount	Gloves	\$102,156.07	\$16,823.04
Reseiler Sales Amount	Pedals	\$94,060.53	\$53,423.38
	Handlebars	\$88,710.99	\$28,237.63
	Tights	\$78,937.08	
	Bib-Shorts	\$64,876.99	
	Brakes	\$45,187.31	\$20,831.40
	Derailleurs	\$44,321.13	\$25,888.36
	Hydration Packs	\$41,531.96	\$23,986.79
	Saddles	\$37,831.96	\$17,997.43
	Bottom Brackets	\$30,792.82	\$21,033.55
	Forks	\$28,259.07	
Highlight	Headsets	\$25,010.36	
riigriiigrit	Caps	\$13,800.95	\$5,665.91
	C a alva	÷** 700 70	17 074 CC

Note the "Sorting 1" sign that appeared in the "Sorting" designer on rows. You can perform the same actions with it as you did with the filters: activate, deactivate, edit and remove.

The same sorting can be created easier using one of the quick sorting options. To use it call the context menu for the CY 2003 element and select "Sort Descending (break hierarchy)" from it:

	+ CY 20	2		CV 2004		1	
🕂 Bike Racks			Show by	у	۲.	307.69	
+ Bike Stands			Dellute				
+ Bottles and Cag			Drill Op			995.27	
+ Cleaners			Drill Do	wn		455.28	
+ Fenders							
+ Helmets			Hide Ite	m		752.52	
Hydration Packs			Hide Sit	olings		986.79	
+ Lights							
+ Locks			Show A	ll Children			
+ Panniers			ShowLe	evel			
+ Pumps			51101012				
Tires and Tubes		Q	Membe	r Selector		296.78	
🕂 Mountain Bikes	\$		A			246.74	
+ Road Bikes	\$1		Actions		<u>*</u>	636.90	
🕂 Touring Bikes	\$!	Â.	Sortina			9	ort Ascending (break bierarchy)
+ Bib-Shorts		<u> </u>					one Ascentaring (break menarchy)
+ Caps		∀ =	Filter		۲.	S	ort Descending (break hierarchy)
+ Gloves		2	Formatt	tina			
+ Jerseys			,		,	3	ort Ascending (do not break hierarchy)
+ Shorts		\$179	,301.33	\$1	13,	S	ort Descending (do not break hierarchy)
+ Socks		\$10	,793.76		\$7,		
+ Tights		\$78	,937.08			<u>م</u>	Add Sorting of Rows (Expert Mode)
+ Vests		\$131	,993.28	\$	91,	F	emove Sorting of Rows
Bottom Brackets		\$30	,792.82	\$	21,		centive sorting of nows
🕂 Brakes		\$45	,187.31	\$	20,	. C	eactivate Sorting of Rows
🕂 Chains		\$5	,685.93		\$3,	1	ctivate Sorting of Rows
Cranksets		\$124	,249.27	\$	79,		curve sorting or nows
+ Derailleurs		\$44	,321.13	\$	25,	888.36	
Forks		\$28	259.07				

As you could notice, there are 4 options of quick sorting available:

- Ascending, breaking hierarchy;
- Descending, breaking hierarchy;
- Ascending, preserving hierarchy;
- Descending, preserving hierarchy;

5.5 Calculated Members

If you are granted with appropriate rights by an administrator then in report designer you will be able to create your own dimension members and measures based on the existing ones. Let's take a deeper look at the process of creating calculated measures and dimension members.

5.5.1 Calculated Measures

You can create your own calculated measures and use them just the way you do it with ordinary measures. To create a new calculated measure press the right mouse button anywhere in the measures list. You will see the context menu, which will give you an ability to add calculated measures:



After pressing "New Measure on Report..." or "New Measure on Cube..." item you will see a wizard that will help you to create calculated measure:



The wizard lets you choose the type of a new calculated measure from six different options:

- Relationship;
- Parallel Period;
- Growth;
- Rolling;
- Period to date;
- Custom MDX;

The last option is for experts that are familiar with MDX querying language. All other options will let you create new measures in an easy wizard mode.

For example, let's create a calculated measure of an average sales amount by orders – the ratio of sales amount to orders count. Select a "Relationship" measure type:

Calculated Measure	x
Type of calculated measure representation	
 Relationship Examples: Ratio, Difference, % of difference, % of markup Parallel Period Example: parallel period by years Growth Example: growth by years Rolling Examples: rolling total/average Period to date Examples: total since beginning of the year Custom MDX 	
Cancel < Back Next > Finish	

😂 Calculated Measure	- Relationship X
Measure Name: *	Avarage Sales Amount by Order
Non-empty Behavior:	- x
Folder:	My Calculations - ×
Format String:	Currency
Formula type	
Ratio of other measure	re
C Ratio of SUM over row	vs/columns
Ratio of parent memb	er
© Difference	
© Percent of difference	
© Percent markup	
Ratio formula:	
× [*] Reseller	Sales Amount 👻
	Order Count 🗸
Example: Avg Price = Si	ales / Units
Cance	Sack Next > Finish

Press "Next" and fill in the fields in the next window as it is shown in the picture:

After pressing "Finish" you will see the folder for calculated measures in the measures list and it will contain a new measure:



Columns 😫 Reseller	Sales Amount ×	Reseller Order Coun	t × Avarage Sales	Amount by Order ×
Rows 🗄 - + P	Product/Product Ca	ategories 👻 🗔 🗙		
Rows / Columns Filter S	Gorting			
Context F	Product/Produc t Categories	Reseller Sales Amount	Reseller Order Count	Avarage Sales Amountby Or
	+ Accessories	571,297.93\$	1,31	434.45\$
	+ Bikes	66,302,381.56\$	3,15	21,028.35\$
	+ Clothing	1,777,840.84\$	2,41	737.69\$
	Components	11,799,076.66\$	2,64	4,459.21\$
Measures Reseller Sales Amount × Reseller Order Count × Avarage Sales Amount × Highlight				

Now you can use that calculated measures the same way you use the other measures. Just drug the new measure into the "Measures" designer and you will get the expected result:

To edit or delete calculated measure just click the right mouse button on the corresponding measure in the list and select "Edi" or "Delete", respectively:



Besides, users can allow or forbid the shared access to the measures. Depending on who was the measure creator and if it was shared or not, it would be displayed using different icon:



- 1 a measure created by this user on a report level;
- 2-a shared measure created by this user on a cube level;
- 3 a measure created by a different user on a cube level and shared with this user;
- 4 a measure created by administrator on a cube level;
- 5 a measure created by administrator on the report level and available just for this report.

5.5.1.1 Parallel Period

In the previous chapter you created a calculated measure of "Relationship" type. In this chapter you will see the example of measure of "Parallel Period" type.

For example, let's create a measure showing the value of "Reseller Sales Amount" in the same month of the last year, and use this measure to compare the bikes sales in different months of this and previous year.

Add a new measure to the measures list using the corresponding context menu option:



When creating a new calculated measure select "Parallel Period" measure type and press Next:



In the next window fill in all fields as it is shown in the picture:

Calculated Measure	e - Parallel Period	x
Measure Name: *	Reseller Sales Amount Parallel Period	
Base Measure: *	Reseller Sales Amount	•
Hierarchy: *	Date/Date.Calendar	•
Level: *	Month	•
Periods: *	12	÷
Non-empty Behavior:		×
Folder:	My Calculations -	×
Format String:	#,0.00 -	
Parallel period type		
Value from parallel p	eriod	
© Growth		
© Growth %		
Cancel	< Back Next > Finish	

The selected Parallel period type at the bottom (*Value from parallel period*) means that the value of the measure selected in the "Base Measure" field ("Reseller Sales Amount") will be shown. The Time "Hierarchy" field points to the hierarchy that will be used to count the parallel period. And the values in the "Level" and "Periods" fields mean that the data for a time period, that was 12 month before the current period, will be shown.

After filling in all fields press «OK» and you will see a newly created measure in the measures list:



Place the months of the year 2007 on the columns of your table:

🗆 놀 🔄 All Periods
🕀 🎱 🦲 CY 2005
🕀 🎱 🦲 CY 2006
🖂 🎱 📃 CY 2007
😑 🚥 📃 Calendar Semester
😑 🚣 📃 Calendar Quarter
🕀 🗱 🔽 Month
🕀 🎱 🔄 CY 2008
🕀 🎱 📃 CY 2010

Place the "Bikes" category from "Product Categories" hierarchy into the context, thus you will see only the sales data for bikes:

🗆 🐌 🔚 All Products	
🕀 🎱 📃 Accessories	
🕀 🎱 🗹 Bikes	
🕀 🥥 🗌 Clothing	
🕀 🎱 📃 Components	

After that place two measures on rows: "Reseller Saves Amount" and newly created "Reseller Sales Amount Parallel Period". You will get the following report:

Columns 😫 🗕 +	Date/Date.Calendar 👻 🕵 🗙		
Rows 😫 Reselle	r Sales Amount × Reseller Sales Amount F	Parallel Period \times	
Rows / Columns Filter	Sorting		
Context	Measures	🕂 January 2007	🕂 February 20 🕞
C > Product/Prod	Reseller Sales Amount	1,171,710.95\$	2,154,368.36\$
	Reseller Sales AmountParallel Pe	687,178.08	1,814,374.32
Measures Reseller Sales Amount × Reseller Sales Amount P ×			

Add a chart to your report. Set the argument to columns and remove the legend:





After that you will get the report like this:

In the chart you can see that two bars are corresponding to every month: red one stands for the current "Reseller Sales Amount" value and a blue one – for the value of that measure in the same month of a previous year.

5.5.1.2 Growth

Calculated measure type "Growth" lets you create a measure that will show an absolute or relative growth of another measure.

Let's create a measure that will show a relative growth in percents of "Resellers Sales Amount" measure in this month comparing to the previous month, and use that measure to show the sales growth of bikes.

Add a new calculated measure of "Growth" type:

Calculated Measure	x
Type of calculated measure representation	
 Relationship Examples: Ratio, Difference, % of difference, % of markup Parallel Period Example: parallel period by years Growth Example: growth by years Rolling Examples: rolling total/average Period to date Examples: total since beginning of the year Custom MDX 	
Cancel < Back Next > Finish	

In the next step fill in the fields as it is shown in the picture:

Calculated Measur	e - Growth X
Measure Name: *	Reseller Sales Amount Growth %
Base Measure: *	Reseller Sales Amount 🔹
Hierarchy: *	Date/Date.Calendar -
Non-empty Behavior:	- x
Folder:	My Calculations - ×
Format String:	0.00%
Growth type	
As percent change	
As absolute change	
Cancel	< Back Next > Finish

"Base Measure" field points to the measure the growth of which we are interested in. The Time Hierarchy field is for selecting the hierarchy that will be used to count growth, in most cases the time hierarchy (like "Date.Calendar") should be selected here. After filling in all fields press «OK» and you will see the new calculated measure in the list:



In the report from the previous chapter remove the "Reseller Sales Amount Parallel Period" measure from rows:



Place the newly created measure "Reseller Sales Amount Growth %" instead. After that move the growth values to the second pane of the chart:

Columns 😫 🗕 +	Date/Date.Calendar	- 🗔 x	
Rows 😫 Reselle	er Sales Amount 👻 🗙	Reseller Sales Amount Growth % - ×	
Rows / Columns Filter	Sorting	Chart	
Context < > Product/Prod </td <td>Measures Reseller Sales An</td> <td>On Pane 2</td> <td>+ Feb 2,15</td>	Measures Reseller Sales An	On Pane 2	+ Feb 2,15
	Reseller Sales An	Override type	-
		Bar	
Measures			
Reseller Sales Amount 👒 🗙		Analy Connel	
Reseller Sales Amoun ×		Appiy	



You will get the following report:

In the chart for every month you can clearly observe the sales amount and its growth in percent comparing to the previous month.

5.5.1.3 Rolling Measure

Rolling measure type is used to show an average or total value of some measure in a certain time period.

For example, you can create a measure that will show an average profit for the last three month. To do that, create a new calculated measure of "Rolling" type:

Calculated Measure ×
Type of calculated measure representation
 Relationship Examples: Ratio, Difference, % of difference, % of markup Parallel Period Example: parallel period by years Growth Example: growth by years Rolling Examples: rolling total/average Period to date Examples: total since beginning of the year Custom MDX
Cancel < Back Next > Finish

In the next window fill in the fields as it is shown in the picture:

😂 Calculated Measur	e - Rolling	x
Measure Name: *	Gross Profit Rolling	
Base Measure: *	Gross Profit	•
Hierarchy: *	Date/Date.Calendar	-
Periods: *		3 🗘
Non-empty Behavior:		• x
Folder:	My Calculations	* X
Format String:	#,0.00 -	
Operation type		
🔘 Total		
Average	\	
Cancel	< Back Next > Finish	

The Operation type selected at the bottom (Average) means that the average value of a measure, set in the "Base Measure' field, will be calculated, in our case – "Gross Profit". Values in

fields "Periods" and "Time Hierarchy" state that the average should be calculated over the last 3 month in the "Date.Calendar" hierarchy.

After filling in the fields press «OK» and you will see a new measure in a measures list:



To try that new measure in practice, create a new page of the structure, described below. Put months of 2003 on columns:

🖃 놀 🔄 All Periods
🕀 🎱 🦳 CY 2005
🕀 🎱 🔤 CY 2006
🖂 🎱 🧮 CY 2007
😑 🚥 📃 Calendar Semester
🖃 🚣 📃 Calendar Quarter
🕀 🗰 🔽 Month
🕀 🥥 🔤 CY 2008
⊕ ⊕ CY 2010

Put two measures on rows: "Gross Profit" and "Gross Profit Rolling". Next, add a chart to the page and change the chart properties like this:

Chart Properties
Layout:
🖬 bottom 👻
Argument:
© rows 💿 columns
Type:
🔨 Spline 💌
Properties:
🔽 legend 📃 labels
🔲 rotate by 90°


You will get a page looking like this:

Profit for a current month is displayed with a red line, and the blue line shows the average profit for the last three consecutive months. As you can notice, the line corresponding to the calculated measure is more flat, it doesn't display the sharp rises and falls of profit. It looks more like a tendency, because the average value of profit in three months is taken into account.

5.5.1.4 Period to date

"Period to Date" calculated measure type is used to show a total or average value of some existing measure from the beginning of some period to the current date.

For example, if you need to draw a chart representing the growth of total sales amount during a year, you can create a calculated measure, showing the total amount of sales from the beginning of the year to a current date. Let's create such a measure. While creating a new measure, select "Period to Date" measure type:

Calculated Measure	x
Type of calculated measure representation	
 Relationship Examples: Ratio, Difference, % of difference, % of markup Parallel Period Example: parallel period by years Growth Example: growth by years Rolling Examples: rolling total/average Period to date Examples: total since beginning of the year Custom MDX 	
Cancel < Back Next > Finish	

Press Next and fill in all fields in the next window as shown:

😝 Calculated Measure - Period to Date 🛛 🗙 🗙		
Measure Name: *	Reseller Sales Amount Period to Date	
Base Measure: *	Reseller Sales Amount	
Hierarchy: *	Date/Date.Calendar 🔹	
Level: *	Calendar Year 🔹	
Non-empty Behavior:	- x	
Folder:	My Calculations - ×	
Format String:	#,0.00 -	
Operation type		
O Total		
© Average		
Cancel	< Back Next > Finish	

Operation type selected at the bottom defines that the total value of the measure selected in the "Base Measure" field ("Reseller Sales Amount" in our case) will be shown. In the "Time Hierarchy" field you have to select the time hierarchy. The total value will be calculated starting from the beginning of the corresponding period from the level set in the "Level" field. If you set the "Calendar Year" level, you will get the totals from the beginning of the year.

Press «OK» and the new calculated measure will be added to the measures list:



Let's create the charts of total sales growth during the year 2003 for every country outside the Americas. First drag the "Date.Calendar" hierarchy on columns and select all month of the year 2003:

😑 놀 🔄 All Periods	
🕀 🎱 📃 CY 2005	
🕀 🎱 🦳 CY 2006	
🗆 🎱 📃 CY 2007	
🖃 🚥 📃 Calendar S	Semester
😑 🚣 📃 Calend	lar Quarter
🕀 🗰 🔽 Mo	nth
🕀 🎱 📃 CY 2008	
🕀 🎱 📃 CY 2010	

Then drag the "Geography" hierarchy on rows and select all countries except "Canada" and "United States":



Drop a just created "Reseller Sales Amount Period to Date" measure inside the table. And put the hierarchy "Product Category" with only "Bikes" category selected into the context:

E S' All Products
O Cressories
🕀 🅥 🔽 Bikes
🕀 🥥 🔤 Clothing
🕀 🍚 🗌 Components

Your page should look like this:

Columns 😫 - + Date/Date.Calendar + 🗔 ×								
Rows 🗄 🗕 Ge	E Geography/Country + 🖸 ×							
Rows / Columns Filter	Sorting							
Context	Geography/Co	+ January 2007	+ February 20	🕂 March 2007	🕂 April 2007	+ May 2007	🕂 June 2007	🕂 July 2007
≤ ≥ Product/Prod	Australia							39,902.50
	France	30,292.82	144,950.28	199,375.11	240,716.86	380,905.70	453,248.69	479,836.81
	Germany							124,314.73
	United Kingdom	31,835.47	142,318.71	243,874.25	280,467.44	368,812.49	467,480.62	576,996.35
Germany Interview Interview								

Change the view mode from table to chart, using the corresponding option from the toolbar:

	Chart	-	
	Table		
=	Chart		
2	Table And Chart	5	-
3	~		

In Chart Properties select the columns as an argument and change the type of the chart to Line:

Chart Properties		
EX Line		
bottom	~	
Argument:		
[©] rows	🖲 columns	
V legend	labels	
🔲 rotate by 90°		
Settings		



You will get this kind of report with the charts of total sales growth of bikes in different countries:

1,200,000.00

1,000,000.00

800,000.00

600,000.00

400,000.00

200,000.00

0.00

+ ^{\$ebilien, 2003}

ANRICH 2003

^{\$071}7005

May 2003

- 407@ 2003

11/1 2001

+ 1³711871 2003

Highlight

1

🖲 columns

High Chart Properti

🔁 Line

bott

rows

Argument:

legend labels
 rotate by 90°
 Settings

Avernber 2003

September 2003

⁸⁴⁹⁴⁵⁷2003

CERGE ROS

+ December 2003

5.5.2 Measure Folders

When users create their own measures, all of them are automatically placed to "My Calculations" folder:

Calculated Measure	- Relationship 🛛 🗙 🕷
Measure Name: *	o
Non-empty Behavior:	· · ×
Folder:	My Calculations - ×
Format String:	My Calculations
Formula type	
Ratio of other measure	
C Ratio of SUM over rov	n
Ratio of parent memb	a de la companya de l
© Difference	
© Percent of difference	
© Percent markup	
Ratio formula:	
*	-
Example: Avg Price = Sa	
Cancel	<pre></pre>

Users can create their own trees of folders, but all of them will be under "My Calculations". Let us look at the example with measures that we've just created. In order to manage folders, click on any place in the list of folders and select "Edit Folders" from the context menu:



In the window below there is a list of previously created measures. Let us add a folder *«Folder 1»* by pressing "Create":

👂 Folder Editing	_ = ×
Folders: Image: My Calculations	Measures: Avarage Sales Amount by Order Gross Profit Rolling Reseller Sales Amount Growth % Reseller Sales Amount Period to Date Reseller Sales Amount Parallel Period
You may drag drop measures from one	e folder to another.
Create Rename Delete	OK Cancel
New Folder Folder Name: Folder 1	X OK Cancel

Folder Editing	_ = ×
Folders:	Measures:
😑 🍘 My Calculations	
Differ 1	
You may drag drop measures from one	e folder to another.
Create Rename Delete	
	OK Cancel

As a result we have a subfolder with the name *«Folder 1»* with no measures in it:

Let us move the measure "Gross Profit Rolling" in the new folder. It is necessary to capture the measure using the mouse and to move it to the desired folder:

尊 Folder Editing	_ = ×
Folders:	Measures: Avarage Sales Amount by Order Gross Profit Rolling Reseller Sales Amount Growth % Reseller Sales Amount Period to Date Reseller Sales Amount Parallel Period
You may drag drop measures from one	folder to another.
Create Rename Delete	OK Cancel

🟮 Folder Editing	_ = ×
Folders:	Measures: Gross Profit Rolling
You may drag drop measures from one	folder to another.
Create Rename Delete	
	OK Cancel

If we click on *«Folder 1»*, we can see "Gross Profit Rolling" measure there:

The folders can be renamed and deleted, and new subfolders can be created:

Folder Editing		-	x
Folders:	ns	Measures:	
Folder 1	Create Subfolder Rename Delete		

If a folder is deleted and in the same time there are any measures in it, they are moved to the root folder:





5.5.3 Calculated Members

You have the possibility to create your own dimension members, based on the existing ones. To add calculated members to some hierarchy you have to click with the right mouse button on that hierarchy in the hierarchies list. In the context menu select "Calculated Members…":



After that a window will appear for managing the calculated members from the selected hierarchy:

٢	Calculated Members: Date/Date.Calendar		x
-	8 9 x		_
_			_
	`		
	C	ose	

To add a new calculated member, press the button as shown in the picture above. A wizard will appear that will help you to create a new member:



In the first step you have two options:

- Function over set;
- Custom MDX.

The second option is for experts familiar with MDX querying language and enables you to create a calculated member with a custom MDX query.

Let's consider the first option. If you select it and press Next you will see the following form:

🟮 Calculated Member ·	- Function over Set	x
Member Name:	* Sum of Current Measure over Date. Calen	dar
Parent Hierarchy:	* Date/Date.Calendar	~
Parent Member:	All Periods 👻	x
Function:	* Sum	•
Measure:	* Current Measure	•
Format String:	Standard	•
Solve Order:	0	÷
Set		
🔘 Date Range 🥼) Tree	
🕀 🕹 📜 All Periods		
Cancel	< Back Next > Finish	

Let's build the calculated member that will show the total value of the measures for the years 2001 and 2002. To do that, select "Sum" in the "Function" field. In the "Measure" field leave the value "Current Measure" to make the summary value calculated over the currently selected measure. In the bottom part of the window you can see an elements tree where you can select the elements whose values will be counted in the sum. Select "CY 2005" and "CY 2006" as shown in the picture:

Calculated Membe	r - Function over Set	x
Member Name:	* Sum of Current Measure over Date.Calend	lar
Parent Hierarchy:	* Date/Date.Calendar	~
Parent Member:	All Periods 👻	×
Function:	* Sum	•
Measure:	* Current Measure	•
Format String:	Standard 👻	
Solve Order:	0 🛊	
Set		
🔘 Date Range	🔘 Tree	
C Δ All Periods		
🕀 🌑 🗌 CY 2007		
Cancel	< Back Next > Finish	

After pressing "Finish" the new calculated element will be created:

n 2 2 2 2
Sum of Current Measure over Date.Calendar

Now add the hierarchy with the new element ("Date.Calendar" in our case) to your report on rows or columns. Open the member selector and you will see a new calculated member there:

Selection Filter Sorting Options
🔘 Date Range 🛛 💿 Tree
😑 Σ) 🗌 All Periods
🕀 🎱 🗹 CY 2005
🕀 🍚 🗹 CY 2006
⊕ ● CY 2007
Sum of Current Measure over Date. Calendar
Show Search >>
OK Cancel

Add this element to the selection to see the result:

Columns 🖹 🗕	- Date/Date.Calendar 👻 🕵 🗙				
Rows 🗎 🗕	Rows 🗄 - + Product/Product Categories - 😡 ×				
Rows / Columns Filter	Sorting				
Context	Product/Prod + CY 2005 + CY 2006 Sum of Current Measur				
	+Accessories 20,235.36\$ 92,735.35\$ 112,970.72\$				
	Bikes 7,395,348.63\$ 19,956,014.67\$ 27,351,363.30\$				
	+ Clothing 34,376.34\$ 485,587.15\$ 519,963.49\$				
	+ Components 615,474.98\$ 3,610,092.47\$ 4,225,567.45\$				
Measures Reseller Sales Amount ×					

You can edit calculated members in the same management window that you used to add the member. There are buttons for editing and removing a member:

Calculated Members: Date/Date.Calendar		x
n 2 2 2 2		
Sum of Carren Measure over Date.Calendar		
d	ose	

You can also edit the calculated members from the context menu:



If you share the member with other people, it will be surrounded by green rectangle:



Pay attention, that in the calculated members' management window you can see only elements from the hierarchy for which you opened that window. To see the elements from the other hierarchy click the right mouse button on that hierarchy and select the item "Calculated Members".

Let's edit our calculated member, so that it will show not the sum but the average value. To do that, select the element in the calculated members' management window and press the Edit button.

In the "Function" field change the value from "Sum" to "Average" and press «OK»:

Calculated Member	r - Function over Set	x
Member Name:	* Sum of Current Measure over Date	e.Calendar
Parent Hierarchy:	* Date/Date.Calendar	T
Parent Member:	All Periods	- X
Function:	* Average	-
Measure:	* Current Measure	•
Format String:	Standard	•
Solve Order:		0 ‡
Set		
🔘 Date Range	🔘 Tree	
🖂 🔁 🗌 All Periods		
🕀 🍑 🗹 CY 2001		
⊕		
⊕		
Sum of Cur	rent Measure over Date.Calendar	
	ок с	ancel

Columns 😫 - + Date/Date.Calendar - 🗔 ×						
Rows 🗄 - +	Product/Product M	odel Categories 👻	× 🔊			
Rows / Columns Filter Sorting						
Context	Product/Prod	+ CY 2001	+ CY 2002	Average of Cur		
	Accessories	\$20,235.36	\$92,735.35	\$56,485.36		
	🕂 Bikes	\$7,395,348.63	\$19,956,014.67	\$13,675,681.65		
	🕂 Clothing	\$34,376.34	\$485,587.15	\$259,981.74		
	+ Components \$615,474.98 \$3,610,092.47 \$2,112,783.73					
Measures						
Reseller Sales Amount ×						

Now look at your report, it should show the average value for two selected years:

This way you can create any number of calculated members in different hierarchies and use them in your reports.

5.6 Gauges

5.6.1 Creating Gauges

In order to create a gauge, it is necessary to click on the desired measure and select the visualization type as a gauge:

Columns	111	Interne	et Ord	er Quanti	ity🕞 <
Rows	Rows 😫 - + Date/Date.Calendar - 🗔 ×				
Rows / Colum	ns 📗	Filter	Sortir	Ig	
Context			Date	e/Date.	Internet Order Quantity
			ΞC	Y 2005	1,013
 Measures	•		+ C	Y 2006	2,677
Internet Order	Ouan.	\mathbf{O}		Y 2007 Y 2008	24,443
Table					52,203
© Text		🖲 Gau	ige		
Туре		_			
Circle					-
Show val	ue				
Goal					
None					* X
Fact					•
None					-
X:	(D 🌲			
Scale					
Auto for	each g	jauge			
Minimum:			0 ‡	V Auto	
Maximum:		5000	0 ‡	🔽 Auto	
App	bly			(Cancel

There are the following types of gauges:

Table
🔊 Text 💿 Gauge
Туре
Cirde 🗸
S Circle
🚯 Semicircle
S Left Quarter
Right Quarter
Inree Quarter
Linear Vertical
Traffic Lights
Fact 🔹
None 👻
X: 0 ÷
Scale
C Auto for each gauge
Minimum: 0 🌲 🔽 Auto
Maximum: 50000 🌲 🗹 Auto
Apply Cancel

The field "Goal" defines the measure which will be used as a target in data analysis. By default it is empty. If we don't select a measure in the "Goal" field, the analysis is done relatively to the fact measure (in our case this is "Internet Order Quantity").

Let us select the measure "Reseller Order Quantity" in the field "Goal":

Table
🔘 Text 🛛 📵 Gauge
Туре
Sircle -
Show value
Goal
Reseller Order Quantity 🔹 🗙
% of difference between fact and goal 🔹
▼▲ Less/more(more = good) ▼
X: 0 🗘 %
Scale
Auto for each gauge
Minimum: 0 🌲 🔽 Auto
Maximum: 50000 🌲 🗹 Auto
Apply Cancel

The next step will be to select the "Goal":

Table
🔘 Text 🔘 Gauge
Туре
Circle 👻
Show value
Goal
Reseller Order Quantity - ×
% of difference between fact and goal 👻
% of difference between fact and goal
Difference between fact and goal Fact Goal
Auto for each gauge
Auto
Maximum: 50000 📮 🗹 Auto
Apply Cancel

Then select the way how the label will be rendered:



And set the value of "X":

Table			
© Text OGauge			
Туре			
Circle 👻			
Goal			
Reseller Order Quantity - ×			
Difference between fact and goal 🔹			
Less/more(more = good) -			
X: 0 ‡			
Scale			
Minimum: 0 🌲 🕅 Auto			
Maximum: 50000 🌐 🔽 Auto			
Apply Cancel			

By default the application offers its own scale, but the user can override the value of the minimum and maximum.

As a result of the selected parameters we will get the visualization with the icon on a gauge meaning the fact (Internet Order Quantity). In the center of the gauge there is a label which displays the difference between fact and the goal:



As we can see on the pictures, the goal were not met in the years of 2005 and 2006.

There is one more type of the gauges called "Traffic lights":

Columns	100	Internet Order Quantity 👻 🗙			
Rows	100	- +	Date/Date.Cal	endar 👻 🕵 🗙	
Rows / Columns Filter Sorting					
Context		la v	Date/Date. Calendar	Internet Order Quantity	
	/	<u> </u>	+ CY 2005	1,013	
			+ CY 2006	2,677	
			+ CY 2007	24,443	
			+ CY 2008	32,265	
Measures	Quan	.] • ×			

Select "Canada" in the context:

🟮 Выборка элементов: Geography	x
Выборка Фильтр Опции	
😑 💫 🔄 All Geographies	
🕀 🎱 🦳 Australia	
🕀 🌑 🔽 Canada	
🕀 🌑 🔚 France	
🕀 🎱 🥅 Germany	
🕀 🎱 🦳 United Kingdom	
🕀 🎱 📃 United States	

Select the traffic lights in the drop down:

Columns 😫	Internet Order Quantity 👻 🗙		
Rows 😫	– + Date/Date.Calendar - 🗔 ×		
Rows / Columns	ilter Sorting		
Context < > Geography	Date/Date. Internet Order Calendar Quantity		
	+ CY 2005 1,013 + CY 2006 2,677		
	+ CY 2007 24,443		
	+ C1 2008 32,265		
Measures			
Internet Order Quan			
Table			
🔘 Text	🖲 Gauge		
Туре			
Traffic Lights	_		
	·		
Show value			
Goal			
None	- X		
Fact	· · · · · · · · · · · · · · · · · · ·		
More is good	C Less is good		
15000.0	\$ 35000.0 \$		
	Crawl		
Apply	Cancel		

There are two kinds of visualizations for the traffic lights. In this type of the gauge the parameters are similar to the previous one: we can set the "Goal" if necessary. The difference is in the ranges which correspond to the color of the traffic lights.

Let us show the difference between the fact (Internet Order Quantity) and the goal (Reseller Order Quantity). The negative value of % of the difference will be displayed using red color, the difference from 0% till 100% will be displayed using yellow color, values of more than 100% will be displayed with green. Let us set up the following parameters:

Table
🔘 Text 💿 Gauge
Туре
Traffic Lights
Show value
Goal
Reseller Order Quantity - ×
% of difference between fact and goal
More is good CLess is good
Apply Cancel



As a result, we will get the following report:

You can switch on or off displaying the values:

Table
🔘 Text 🔘 Gauge
Туре
Traffic Lights
Show value
Goal
Reseller Order Quantity - ×
% of difference between fact and goal 🔹
More is good C Less is good
0 🗘 %
Apply Cancel

Gauges can be built using two more ways: using the context menu and the toolbar. When the context menu is used, you can select the way of visualization:

Columns 🔚 Internet Order Quantity 🔹 🗙					
Rows 📋 - + Date/Date.Calendar - 🕵 ×					
Rows / Columns Filter S	Gorting				
Context	Date/Date. Calendar	Internet Orde Quantity	r		
Measures	+ CY 2005 + CY 2006 + CY 2007 + CY 2008		Drill by Drill by on New Page Drill Through Actions Search	•	
			Visualization	• •	/ Text
		 ₫	Highlight	•	Gauge
		8	Formatting	1	Circle
		9	Export to NRP		Semicircle
		2	Export to Excel		Left Quarter
		1	Export to Open Office Calc		Right Quarter
			Export to PDF		Three Quarter
		2	Print	-	Linear Horizontal
					Linear Vertical
				E	Traffic Lights

Here you can select the type of the gauge (circle, semicircle, etc.).



You can select the item "Visualization" from menu "Table":

The dialog window "Visualization settings" will open:



In this window we have to select the fact measure, and then in the right part of the window select the type, goal and other parameters:

힣 Visualization settings		_ ×													
Measures		Text O Gauge													
🕀 👘 My Calculations	1	0													
🕀 🍘 Mike Jordan		Туре													
🕀 💼 KPI		Circle 🔹													
🕀 📄 Exchange Rates															
🕀 🚞 Finance															
😑 🚞 Internet Sales															
🔂 Нова міра															
Customer Count	=														
🌀 Growth in Customer Base		Show Value													
internet Average Sale		Goal													
internet Average Unit		Reseller Order Quantity													
Internet Extended Am															
Internet Freight Cost		Difference between fact and goal													
🍥 Internet Gross Profit															
internet Gross Profit															
Internet Order Count		X: 0 -													
Internet Order Quantity	/	Scale													
🕥 Internet Ratio to All Pr		Auto for each gauge													
internet Ratio to Pare		Auto for each gauge													
Internet Sales Amount		Minimum: 0 🌲 🔽 Auto													
Internet Standard Pro		Maximum: 50000 🗍 🔽 Auto													
Internet Tax Amount															
		OK Cancel													

5.6.2 Export of Gauges

The gauges can be exported to NRP, PDF and Excel. While exporting to Excel the gauges are not exported: the cells of Excel table will contain the numbers instead of the gauges.

5.7 Other Report Page Types

Apart from the pages of the table/chart form, you have the possibility to add to your report two more types of pages: Treemap and Scatter-diagram. Those two types of pages allow you to perform advanced visual data analysis. Let's review those two types of pages in more details.

5.8 Treemap

To add a Treemap page to your report press the "Add new page" button on the toolbar:



In the appeared dialog select the "Treemap" page type and fill in the name of a new page:



Press «OK» and an empty treemap-page will be created.

5.8.1 Designers

We can divide the treemap-page into a number of zones:



Dimensions and measures are marked in red; they can be dragged into designers that are marked in blue and green.

The designers marked in blue are those where you can drag dimension members. At the top you can see "Levels" designer, you can drag the levels there and select the elements you would like to see in the diagram. Below it at the left you can see the Context designer, it works just the same way it did in the table page – it bounds the data shown in the report. You can drag hierarchies there.

The designers where you can drag the measures are marked in green. There are three of them:

- Size determines the measure from which the areas of rectangles on the diagram will depend;
- Color determines the measure from which the colors of rectangles will depend;
- Text determines the measures the values of which will be written inside the rectangles in the diagram.

5.8.2 Building a Report

To understand how the treemap page works and what it displays, let's build an example report.

Into the Levels designer drag the levels "Product.Category" and "Product.Subcategory". You will get a diagram constructed of the same number of rectangles as the number of elements in the "Subcategory" level:


Levels - + Category - 🕵 × - + Subcategory - 🗔 ×							
Grouping		2					
Context	Components	;				Clothing	
	Forks	Pedals	Touring	Wheels	Handleba	Bib-Shorts	Caps
	Headsets	Road Fra	Bottom Bra	Chains	Crankse	Gloves	Jerseys
	Mountain	Saddles	Brakes	Derailleu	ırs	Shorts	Socks
Size Color	Accessories Bike Racks	Cleaners	Hydrati	Lights	Locks	Tights	Vests
Text	Bike Stands	Fenders	Pannier	rs Pumps	Tires a	Bikes Mountain Bi	kes Touri
	Bottles and	. Helmets				Road Bikes	

Move the grouping pointer to the right to group up the elements by product categories:

As you can see all the rectangles are grouped by categories. But all the rectangles still have the same area because we did not set the measure determining the area of elements. Drag the "Reseller Gross Profit" measure into the "Size" designer:

Levels - + Cat	tegory - 🖸 × – + Subcate	gory – 🔀 ×	
Context	Bikes		Components
Size Reseller Gross Profit ×	Mountain Bikes	Touring Bikes	Mountain Frames Wheels Cra Ha Pedals F Road Frames D He Sa Br B T Clothing Jerseys Vests Glo
Text	Road Bikes		Shorts Tights Bib S C Accessories Helmets Bike R Hy L

Now the area of each rectangle became proportional to the corresponding value of "Reseller Gross Profit" measure for the element. Negative values are hatched.

Levels - + Cat Grouping	tegory + 🖸 × – + Subcategor	ry - 🔀 x		
Context	Bikes		Components	5
	Mountain Bikes	Touring Bikes	Mountain Fra	ames
			Wheels	Cra Ha Pedals F
Size			Road Frame	S D He Sa Br B 🕅
Color			Clothing Jerseys	Vests Glo
Reseller Gross Profit Ma ×	Road Bikes			
Text			Shorts	Tights Bib
			Accessories	
			Helmets B	Bike R Hy L

Drag the measure "Reseller Gross Profit Margin" into the "Color" designer:

The two colored gradient highlighting will be added, that will show us how large (more green color) or small (closer to red) is the profit from selling the products of each category. You can change the highlight rule by pressing the button that is showing the gradient:

	•
Size	
Reseller Gross Profit ×	
Color	
Reseller Gross Profit Ma… ×	Road Bike
Text	

The window for setting up the gradient will appear, exactly the same as you could see when setting up the gradient for highlighting in the table:

🟮 Color	Sett	ings										x
One-col	or			OT	wo-col	or		0	Rain	bow		
	1	ı	i.	ı	,	Ó	ı	ı	ı	ı	1	
🔲 Steps												
							(C	OK		Cano	el

For more convenient data analysis, add to the "Text" designer the same measures you added to the "Size" and "Color" designers. You will get the following report:



And finally, using "Context" designer, let's bound the data to show only the sales in the territory of "United States". For that purpose, add the "Geography" hierarchy into the context and select only the element "United States" there:

Member Selector: Geography		x
Selection Filter Options		
😑 Σ) 🔄 All Geographies		
🕀 🌑 🗌 Australia		
🕀 🌒 🗌 Canada		
🗄 🌒 🗌 France		
🕀 🅥 🗌 Germany		
🕀 🥥 🗌 United Kingdom		
🕀 🕥 🔽 United States		
_		
·		
Show Search >>		
OK Car	ncel	
	_	

Thus we created the report, showing the profit from selling products of different categories in "United States". Every product subcategory is shown with the rectangle on the diagram. The area of each rectangle is proportional to the value of gross profit from selling the products of corresponding subcategories. And the color of a rectangle depends on the value of that profit in percents. The closer color is to green the bigger is the value, while closer to red, means the value is smaller:



5.8.3 Navigation on the Page

You can perform the navigation on the treemap-page and change the page using the options from context menu:

Levels - + Category - 😡 × - + Subcategory - 😡 ×						
Context	Bikes Mountain Bikes	Road	Bikes	Compo Mounta	onents ain Frames	
	\$960,464.74 5.00%	(\$789	,635.70)	\$331,8	77.62 6	
		3-v3	Show by	•		
		8	Drill Up			
		8	Drill Down			
		8	Hide Item		Ha Cr	
		8	Hide Siblings		52.39 \$2 \$2 5 25 25	
		8	Show Siblings		Ped Fo	
		§ 🚛	Drill Through	F	rames \$23 \$1	
Size		8	Drill Through Actio	ons 🕨	0.55 H Bris	
Reseller Gross Profit ×		8	Actions	Þ	g D B 🕅	
Reseller Gross Profit Ma ×		1	Highlight		Tights Vests	
	Touring Bikes		Formatting		6 \$39, \$37, 6 29.9 34.8	
Text	(\$567,078.99)	8 👜	Export to PNG		Glo Bib	
Reseller Gross Profit ×	-11./2%	8 🕹	Print		28 So S	
Reseller Gross Profit Ma ×				Access	ories	
				heime		

You should be already familiar with all these options from the description of the page of Table/Chart type. They do exactly the same thing as the options of the context menu called for the rows or columns headers in the table.

For example let's use some of the available options for navigation. Let's hide all elements that are not contained in the "Bikes" product group. To do that click the right mouse button on the "Bikes" group header and select the option "Hide Siblings":

Levels - + Cat Grouping	tegory - 🕵 × – + Subcat	tegory	• • 💽 x	
Context Σ Geography 🗔 🗙	Bikes Mountain Bikes \$960,464.74 5.00%		Show by Drill Up Drill Down Hide Item	Components Mountain Frames \$331,877.62 10.58%
Size Reseller Gross Profit ×		₫ ₹?	Show Siblings Actions Highlight Formatting Export to PNG	Wheels Ha Cr \$123,152.39 \$2 \$2 25.91% 25 25 Ped Fo \$95,220.55 H Br 3.79% D B
Color Reseller Gross Profit Ma × Text Reseller Gross Profit × Reseller Gross Profit Ma ×	Touring Bikes (\$567,078.99) -11.72%		Print	Clothing Shorts Tights Vests \$66,396 \$39, \$37, 31.88% 29.9 34.8 Jerseys Glo Bib \$66,135 \$36 \$32, \$66,135 \$36 \$32, \$20.81% 28 \$0 Accessories Helmets Bike

Levels - + Ca Grouping	tegory (Custom) - 🗔 × – + Subcategory - 🗔 ×	
Context Σ Geography 🕵 ×	Bikes Mountain Bikes \$960,464.74 5.00%	Touring Bikes (\$567,078,99) -11.72%
Size Reseller Gross Profit × Color Reseller Gross Profit Ma × Text Reseller Gross Profit × Reseller Gross Profit × Reseller Gross Profit Ma ×	Road Bikes (\$789,635.70) -3.80%	

You will get the following report:

And now let's find out which bikes from the "Mountain Bikes" group bring more and which bring less profit. To do that, you have to select all elements from the lower level under the "Mountain Bikes" element. To do exactly that action "Drill Down" operation is available:

Levels - + Category (Custom) - Category - + Subcategory - Category						
Context	Bikes Mountain Bikes			rina Bikes		
2 Geography 😡 X	\$960,464.74 5.00%		(65 -11	57,078.99) 72%		
			Show by	•		
			Drill Up			
			Drill Down			
			Hide Item			
			Hide Siblings			
			Show Siblings			
Size	Røad/Bikes	•	Drill Through	•		
Reseller Gross Profit ×	(\$789,635,70)		Drill Through Actions			
Color Reseller Gross Profit Ma	-3,80%		Actions	• 800000		
		1	Highlight			
Tevt		8	Formatting			
Reseller Gross Profit ×		1	Export to PNG			
Reseller Gross Profit Ma ×		3	Print			

Levels - + Category (Custom) - 😡 × - Product (Custom) - 😡 ×						
Grouping		U				
Context	Bikes					
Σ Geography 🥵 🗙	Mountain-200 Bl \$99,867.33 9.98%	Mountain-200 Silv \$79,991.82 9.89%	Mountain-200 \$79,109.69 8.48%) Blac	Mounta \$78,42 9.88%	iin-200 Silv 6.41
	Mountain-200 Bl \$88,247.07 9.68%	Mountain-200 Bla \$68,001.40 9.86%	Mountain-20 \$58,988.02 8.76%	Mounta \$54,90 8.81%	ain-2)9.36	Mountain \$51,139.90 8.27%
Size Reseller Gross Profit × Color Reseller Gross Profit Ma ×	Mountain-200 Sil \$81,402.28 9.98%	Mountain-200 Sil \$66,818.57 8.67% Mountain-200 Bla	Mountain M \$27,061.36 \$2 7.53% 7. Mountain M \$26,360.11	ountain 22,888. 42% sunt. 16,2 .83%	Mour (\$19 -1.97 Mou (58	nta. Mount. 0. (\$17, 7% -1.88% Mou Mou \$7,5 \$7,4 Mo M (\$22)
Text Reseller Gross Profit × Reseller Gross Profit Ma ×		\$65,830.53 8.17%	Mountain \$1 \$25,572.24 8. 7.65% M	ount 13,7 .75% ount 9.17	<u>\$7,1</u> Mou <u>\$7,0</u> Mou (\$6 \$5 (\$) M. M. M. M. (\$ \$4 (\$4 M. M. M. M

Here is the expected result:

We could also perform a "Drill Down" not only for the single element "Mountain Bikes", but for all the selected elements together. To do that you have to press the plus button near the element corresponding to "Subcategory" level in the "Levels" designer:

Levels	- + Category (Custom) - 😳 × - + Subcategory - 😳 ×
Grouping	

Levels - + Cat Grouping	tegory (Custom) 👻	🤹 × – Pro	duct - 😡 ×			
Context	Bikes					
Σ Geography 🗔 🗙	Touring-1000. (\$114,927,43) -25.73%	Road-350 (\$82,758.4. -9.31%	Mountain-2 \$81,402.28 9.98%	Mountain \$79,991.82 9.89%	Mountain \$79,109.69 8.48%	Mountain \$78,426.41 9.88%
	Touring-1000. (\$100,528,36)	Mountain \$68,001.40 9.86%	4 Mountain \$54,909.36 8.81%	Road-350 M (\$52,357 \$ -6.81% 8	L Iountain Ro 51,139 (\$3 27% -6	ad Touri 18, (\$36, 07% -5.49%
	Mountain-20	Mountain \$66,818.57 8.67%	Road Mou (\$34, \$25 -6.23% <u>7.6</u> Road	un Road Ro i, (\$25 (\$ 5% -6.0 -5 u Roa Roa	24. (\$24. (4 -18 1. Roa. Mo.	Load Road \$24 (\$24 5.43.7 Roa Roa
Size Reseller Gross Profit × Color	9.98%	Mountain \$65,830.53 8.17%	(\$29, 74 -3.85% Road (\$2 (\$29, 70)	2 (\$1 (\$1 2 (\$1 (\$1	(\$1. (\$1. Roa. Roa (\$1. (\$1.	(\$1\$1
Reseller Gross Profit Ma ×	\$88,247.07 9.68%	Touring-1 (\$62,836 -20.62%	-6.23% Tourin (\$2 (\$27, Tou -5.39% (\$2	2 (\$1. (\$. Ro. 1 (\$1. Ro. 1 (\$1. Ro.		
Reseller Gross Profit × Reseller Gross Profit Ma ×	Road-650Re. (\$83,771.33) -20.47%	Mountain \$58,988.02 8.76%	\$27,0 7 53% (\$2 Mount \$26,3 7 34% (\$1	id Tou <u>(s.</u> 1 (s1 To id Tou <u>(s.</u> 9 (s1 (s.	M Ro M Ro M Ro M Ro	

Then you would get the diagram, showing all the products under the selected subcategories, all bikes in our case:

5.8.4 Diagram Export

You can save the treemap-diagram as a picture in PNG format. To do that, select the option "Export to PNG..." from the context menu or from the Treemap main menu:

Levels - + Cat	regory + 🖸 × – + Subcatego	ry + 🗔 ×		
Context Σ Geography 🗔 ×	Bikes Mountain Bikes \$960,464.74 5.00%	Road Bikes (\$789,635.7	Components Mountain Fra \$331,877.62	ames
	5.00 %		Show by Drill Up Drill Down	
			Hide Item Hide Siblings	Ha Cr \$2 \$2 25 25
Size Reseller Gross Profit X			Drill Through Drill Through Actions	Ped Fo \$ \$23 \$1 H Br S D B H
Color Reseller Gross Profit Ma ×			Actions Highlight Formatting	ights Vests
Text Reseller Gross Profit ×	Touring Bikes (\$567,078.99) -11.72%	2000 - 2000 2000 - 2000	Export to PNG	19.9 34.8 Slo Bib 136 \$32, 18 <u>So</u> 0
Reseller Gross Profit Ma ×			Accessories Helmets	Bike H LIF

After that you have to select the place where to store the file and the name of that file to get the picture of your diagram. Immediately after the saving finishes you will be offered to open the newly created file.

5.9 Scatter-diagram

To add a scatter diagram to your report press the "Add new page" button on the toolbar:



In the appeared dialog select the Scatter-diagram page type and fill in the name of a new page:



Press «OK» and an empty scatter-diagram will appear.

5.9.1 Designers

Scatter-diagram has the following structure:



At the left side dimensions and measures are marked in red. The designers are marked in blue.

Here is the set of designers available in the scatter-diagram:

- 1. Pages designer. Here you can drop the selection of elements from one level. Every page of the diagram corresponds to one element.
- 2. Context designer. It does the same thing as the corresponding designer in the table and treemap pages, bounds the data shown in the report.
- 3. Details designer. Here you can drop the elements that will be shown as circles in the diagram.
- 4. Color designer. Determines the color of the circles in the diagram.
- 5. Size designer. Determines the sizes of the circles in the diagram.
- 6. X axis designer. Determines the measure, the values of which will be put on the X axis.
- 7. Y axis designer. Determines the measure, the values of which will be put on the Y axis.

Thus on the scatter-diagram you can simultaneously track the changes of four measures: on both axes, by color and size.

5.9.2 Building the Report

Let's build the report that will show the values of "Reseller Sales Amount" and "Reseller Gross Profit Margin" for product subcategories sold in Australia. To do that, drop the "Reseller Sales Amount" measure on X axis, and "Reseller Gross Profit Margin" – on Y axis. To the "Details" designer drag the "Subcategory" level from the" Product Categories" hierarchy:



😝 Member Selector: Geography		x
Selection Filter Options		
😑 Σ) 🗌 All Geographies		
🕀 🌒 🔽 Australia		
🕀 🥥 🚾 Canada		
🕀 🍑 🗌 France		
🗄 🍑 🗌 Germany		
🕀 🍑 🗌 United Kingdom		
🕀 🍑 🗌 United States		
Show Search >>		
OK Can	cel	

Drop the "Geography" hierarchy into the context and select the element Australia there:



You will get the following report:

Every circle on the diagram corresponds to the element from the selection made in Details designer, in our case it corresponds to one product subcategory. If you drag the mouse over the circle, you'll see the hint, showing, which element this circle corresponds to. On the axes you can see the values corresponding to the selected element.

5.9.3 Color Designer

Using the Color designer you can determine on what colors of the circles on the diagram will be dependent.

You can drop into the Color designer the level, used in details or one of its parent levels. For example, drop the "Product.Category" level into the Color designer and the products from different categories will be colored with different colors:



Also you can drop a measure into the Color designer, and then the color of the circle will be dependent on the value of that measure for the corresponding element. Remove the level "Product.Category" from "Color" designer and add the measure "Reseller Gross Profit Margin" there. You will see how the color of the circles changes from the bottom to the top corresponding to the colors of three-colored rainbow. You can change the gradient type by pressing the corresponding button, the same way you did it in the treemap-diagram or in the table:



5.9.4 Size Designer

Using the "Size" designer you can set the measure, the values of which for every element will determine the size of the corresponding circle.

Drag the "Reseller Freight Cost" measure into the "Size" designer:



As you can see, the sizes of different circles became consistent with the values of freight cost.

You can adjust the sizes of the circles on the diagram by setting the range of sizes in the "Size" designer. The smallest and the largest circle sizes can be set using the special control:



Also you can make the dependency of the size from the measure value reversed by checking the "Reverse" option:



5.9.5 Logarithmic Axes

Often you can end up with the case when there is a set of elements on the diagram with very small values on one of the axes in comparison with the values of other elements. In such case the circles corresponding to those elements are situated very closely to each other and drown one over another, and that fact makes the analysis of such diagram very complicated. Here is a great example of such case:



To be able to see the relative positions of circles situated closely to the minimal coordinate you can change the corresponding axis type to logarithmic. Then the coordinates on that axis will be changing not linearly but exponentially.



In the example report turn on the logarithmic mode on the X axis:

Now you can clearly see different elements. Pay attention to the scale on the X axis, the values are changing exponentially but not linearly, as they used to.

5.9.6 Pages Designer

In the upper part of the report page you can see the Pages designer. You can drop there the selection of elements from some level and analyze the data page by page. Every page corresponds to one element from the selection and shows the data bounded by that element.

Add the "Month" level from "Date.Calendar" hierarchy to the "Pages" designer. Then open the member selector and select the following set of elements:

Member Selector: Date/Date.Calendar		x
Selection Filter Options		_
💿 Date Range 💿 Tree		
 ► ∑ All Periods ⊕ ⊙ CY 2001 ⊕ ⊙ CY 2002 ⊕ ⊙ CY 2003 ⊕ ⊙ H1 CY 2003 ⊕ ⊕ H2 CY 2003 ⊕ ⊕ H2 CY 2003 ⊕ ⊕ Calendar Quarter ⊕ # Calendar Quarter ⊕ # ✓ Month 		
 Gr 2001 H1 CY 2004 ∴ Calendar Quarter ⊕ # ✓ Month ⊕ H2 CY 2004 ⊕ CY 2006 		
Show Search >>		
OK Can	cel	



Press «OK» and you will see the following diagram:

Now press "Play" button and you will see how the circles began to move and one page is changing another:

0	-	+ Month (Custom)		- 🗔 x	July 200	3		-
	Ģ	1	1	1		1			 1

To stop the pages changing press the "Stop" button:

in the

6	-	+ Month ((Custom)		- 🗔 x	October	2003		 -
	<u> </u>	1		, 🖓					

You can adjust the speed of changing the pages:

-	+ Month (Custom)		- 😡 x	July 200	3		•
Q-			1	1				

Also you can change the pages manually, using next/previous buttons:

Ь	-	+ Month (Custom)		- 🞑 x	July 200	3		-	
	Q-		1	1	1				1	

or selecting the page from the list:

- + Month (Custom) - 🤹 🗙	July 2003 👻
	_ July 2003
	August 2003
Structure Selection	September 2003
	October 2003
Context	November 2003
Σ Geography 🕵 🗙	December 2003
	January 2004 🗸 🗸

or using the scroll bar:

6		-	+ Month (Custom)		- 🔯 x	October	2003				-
	< >	I	1	1	ι <u>,</u>	1	1	1	1	1	1	

5.9.7 Selection on Scatter-diagram

Next to the "Structure" tab, where the designers are, you can find the "Selection" tab:



On this tab you can select some elements or groups of elements in the diagram. For example, select "Bikes" category:



As you can see, the circles from that category are drawn brightly. At the same time, the other elements are half transparent. The level of transparency of other elements can be adjusted using a special scroll bar:



- + Month (C	Sustom) - 🖸 X June 2004	-
		· .
Structure Selection		
Category		
Category N ³ Subcategory		
Clear		

Before selecting the groups you can change the grouping level from the list:

You also have the possibility to select separate elements (circles) at the diagram. You can do that by simply clicking your mouse on the circle. Also you can select the elements from the list.

Select the Bikes group and under the list of all elements check the "From selected groups" box, so you could see only the elements from selected groups (only bikes):





Now among the elements from the "Bikes" category select the element "Touring Bikes". You will see the hint appearing over that element:

You can turn off the hints by unselecting the option "Show hints".



After you selected the element, press "Play" button. You will see the pages changing, but the trail is left after the selected element:

You can clear the trails using the "Remove" trail button:



Or you can turn off the drawing of trails at all by unchecking the "Trail" option:





This way you can select multiple elements and follow their movements on the diagram during the changing of pages:

5.9.8 Context Menu of the Diagram

If you press the right mouse button on any of the circles in the scatter-diagram then you will see the context menu with a set of operations, which can be used for page navigation, changing the page, printing or exporting:



The set of operations in the context menu is the same as in a treemap-diagram or table headers menus. Therefore there is no need to describe them once again. If you'll have any questions, please refer to the descriptions of the corresponding operations in the chapters dedicated to table and treemap-diagram.

5.10 Dashboard

Dashboard is a kind of a page which allows to display several components: tables, treemaps, scatter diagrams. In order to add a dashboard to your report, press "Add new page" on your toolbar:



In the window below select the type "Dashboard" and enter its name:

🟮 Report Page			x
Name: ^a Dashboa Page Type:	rd 1		
Table/Chart	Treemap	Scatter-diagram	Dashboard
			OK Cancel

Press «OK» and you will have an empty dashboard on your screen:

5.10.1 Designers

The structure of the dashboard is as following:



On the left side you can see dimensions and measures (marked with red rectangle). The editors are shown with blue rectangle:

- 1. Context editor does the same thing that the similar designer in the table, treemap and scatter diagram: it sets the context for all components of the dashboard.
- 2. Page editor: allows to set up the contents of the dashboard.

5.10.2 Building a Dashboard

There are two ways of how to build the dashboard:

1. You can add new elements to it



Add	Table/Chart		
Table/Chart			
Scatter-diagram			
腸 Table 1 🛛 🔢 Table 1 (4) 🛛 🌃 TreeMap 1 📗 🚼	Scatter 1 🔊 Dashboard 1	Search 👻

Select the necessary type of the object anf drag&drop to the dashboard area.

As a result you will get a familiar window where the table is already selected:


After you press «OK» you will have the table designer opened. Construct the following

report:

🟮 Report Designer - Dashboi	pard 1 (Table 1)	= x
Report <u>V</u> iew <u>D</u> ata <u>T</u>	Iable	
: 😋 🕞 💾 😓 📰 👯] Description 🖒 🔌 🔂 100% 🕞 🏥 Table 🕞 🕂 🙀 🖓 💷	
Dimensions 🛛 🔯 🔛	Columns 🔚 – + Date/Date Calendar - 🖸 X	
🕀 过 Account		
🕀 😥 Customer	Rows III - + Product/Product Categories - 📢 ×	
🕀 💽 Date	Rows / Columns Filter Sorting	
Delivery Date		
Department Department Department	+ Accessories 505,895 2,318,405 7,413,365 4,044,885	
⊕ 1 Employee	+ Bikes 184,883.75\$ 498,900.48\$ 638,794.59\$ 334,981.23\$	
🗄 📴 Geography	+ Clothing 859.41\$ 12,139.72\$ 21,796.70\$ 9,650.38\$	
🗄 💓 Internet Sales Orde	+ Components 15,386.88\$ 90,252.35\$ 137,062.55\$ 52,275.37\$	
🕀 💓 Organization		
😑 💓 Product		
😑 🏭 Product Categor	Pacalus Engight Cost	
Σ (All)		
Category		
Subcategory		
Product		
Maagurag		
Exchange Rates		
Finance		
🗄 🛅 Internet Sales 🛛 🗏		
🗆 🚞 Reseller Sales		
Discount Amount		
🕥 Discount Percen		
🚫 Reseller Averag		
Seseller Averag		
Reseller Extend		
Reseller Freight		
Sate III		
I Sets		
	Highlight	
Adventure Works Version: 1	Cube: uranus\sql2008, Adventure Works DW 2008R2 Folders, Adventure Works Rows: 4 Columns: 4	

Save and close it:

🧿 Report Designer - Dashboa		= x
Report <u>V</u> iew <u>D</u> ata <u>T</u>	[able	/
E 🕒 🕒 🔁 🐹	Description 😋 🔌 🔂 100% 👻 🌐 Table 🔹 🔣 🖑 🗐	
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🕀 💓 Department	Context Product/Prod + CY 2005 + CY 2006 + CY 2007 + CY 2008	
🕀 💓 Destination Currency	+ Accessories 505.89\$ 2,318.40\$ 7,413.36\$ 4,044.88\$	
o ter sustance	Bikes 184.883.75\$ 498.900.48\$ 638.794.59\$ 334.981.23\$	

😫 Report Designer - Adventure Works (Version 1)									
Report <u>P</u> age <u>V</u>	<u>/</u> iew <u>D</u> ata <u>D</u> ashboard	Tools							
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Dimensions 🛛 🖉 🔛	Context	Table 1	5 S	۶ 🗶					
🗄 💓 Account 🔷		Product/Prod + CY 2005 + CY 2006 + CY 2007 + CY 2008							
🗄 💆 Customer		+ Accessories 505.69% 2,316.40% 7,413.30% 4,044.00%							
🕒 💆 Date		+ Clothing 859.41\$ 12,139.72\$ 21,796.70\$ 9,650.38\$							
⊕ i Date ≡		Components 15,386.88\$ 90,252.35\$ 137,062.55\$ 52,275.37\$							
🕀 🎎 Date									
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Gales Summ	Add								
	Table/Chart								
Sets 🔳 🖬	Scatter-diagram								
🕀 🔂 Sets	Existing Page								
	🎎 Table 1 😹 Table 1	(4) 👫 TreeMap 1 👫 Scatter 1 🙆 Dashboard 1	Search	-					

As a result, on the dashboard page you will see the constructed table:

When we add objects to a dashboard, we can set up their future position. Let us add a treemap on the dashboard:

Report Designer - Adventure Works (Version 1)								
Report <u>P</u> age <u>V</u> iew <u>D</u> ata <u>D</u> ashboard	T <u>o</u> ols							
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Dimensions Image: Context Dimensions Image: Context Dimensions Image: Context Date Image: Context Image: Context Image: Context <t< td=""><td>Table 1 Product/Prod. C Y 2005 C Y 2006 C Y 2007 Components 184,883.755 498,990.485 638,79 Components 15,386.885 90,252.355 137,06</td><td></td></t<>	Table 1 Product/Prod. C Y 2005 C Y 2006 C Y 2007 Components 184,883.755 498,990.485 638,79 Components 15,386.885 90,252.355 137,06							
👪 Table 1 🔛 Table 1	I (4) 🔥 TreeMap 1 👯 Scatter 1 💿 Dashboard 1 Se	arch +						

The area marked with yellow shows that the treemap will be located exactly in that area:

🔋 Report Designer - Adventure Works (Version 1)										
Report <u>P</u> age <u>V</u>	/iew <u>D</u> ata <u>D</u> ashboard	T <u>o</u> ols								
- C O 🖪 🖪	💾 🔢 🔢 🚱 👘 🐏 🚱 💽 🔢 Description 🛛 😋 🏷 🔁 🗞									
Dimensions 🛛 🔯 🔛	Context	Table 1		5 3	k 🥜 🗙	TreeMap 1		A 🖉 🕺		
🕀 过 Account		Product/Prod	+ CY 2005	+ CY 2006	+ CY 20	Guardian Bank	Reserve S	Security		
🕀 💓 Customer		+ Accessories	505.89\$	2,318.40\$	7,41	96,333.07\$	84,474.66	5\$		
😑 💽 Date		+ Dikes	184,883.75\$	12 139 72¢	21 79	434.895	452.70\$			
🕀 🏭 Date		+ Components	15,386.88\$	90,252.35\$	137,06					
🗄 👬 Date										
🙂 👬 Date										
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Date										
Date										
Date										
🕀 🛃 Date						United Security	Internation	al Security		
🗉 🛛 Date						76.589.05\$		t construction of the second sec		
🕀 👖 Date						453.20\$	433.13\$			
🕀 🗱 Date										
🕀 👖 Date										
C II Data										
Measures 📃 🖲										
🚫 Reseller. 🔺										
Reseller.										
Reseller.						Primary Bank & Reserve		Primary Intern		
Reseller.						70,346.04\$		58,281.81\$		
Reseller						446.46\$		449.36\$		
Reseller.										
Reseller.										
Reseller.										
🕀 🛅 Sales Quota 💼	Add					International Bank				
🕀 🧰 Sales Summ	Table/Chart					69,215.31\$ 445 94\$				
	Treemap					10.010				
Sets 📃 🗉	Scatter-diagram									
🕀 🗖 Sets	Existing Page			_						
					•					
	18 Table 1	(4) 🛛 📲 🕄 TreeMap	1 Scatter 1	🚺 Dashboard 1				Search 👻		

2. You can create new Dashboard objects using existing pages:

Select "Existing Page" as shown below and drop it on the dashboard area:

Add			
🔢 Table/Chart			
No. Treemap			
🔣 Scatter-diagram			
🔝 Existing Page		•	
i 😹 Table 1 🛛 😹 Table 1 ((4) 🔣 TreeMap :	1 🔀 Scatter 1	🙉 Dashboard 1

In the next dialog select one of existing pages:

Page Selector		x
Search		×
Administrator's Pages Table 1 Table 1 (4) TreeMap 1 Scatter 1		
OK Can	cel	



Context	Table 1				C	Č. 🤌	×
	Product/Product	+ CY 2007	+ CY 2008	Total			
	+ Road Bikes	11,294,381.37\$	4,448,636.90\$	15 743 018,26			
	🕂 Mountain Bikes	8,854,263.03\$	3,902,246.74\$	12 756 509,77			
	Total	20 148 644,40	8 350 883,64	28 499 528,04			
Add	Total	20 148 644,40	8 350 883,64	28 499 528,04			
Existing Page							
			-				
1 🔀 Table 1 🛛 🔢 Table 1 🕄	4) 🛛 🌇 TreeMap 1	Scatter 1	🖲 Dashboard 1		Searc	h	•



One after another let us add a treemap and a scatter. After that we'll get this:

5.10.3 Navigation on the Dashboard

You can perform navigation on the dashboard and change it using the context menu:



All these options of the context menu were earlier described in this manual.



You can edit every component of the dashboard separately by pressing the following button



There is a context menu with the "Edit" item on the header of the component:



This context menu has a set of other actions, for example "Make Multiple Copies". Let us look more closely at this action.

Let us assume that we're interested in getting sales by days of the week. Let us edit the following component:

Table 1							C	3	🥕 🗶
Product/Product	+ CY 2007	+ CY 2008	Total						
🕂 Road Bikes	11,294,381.37\$	4,448,636.90\$	15 74	3 018	3,26			1	Edit
🕂 Mountain Bikes	8,854,263.03\$	3,902,246.74\$	12 75	6 509	,77				
Total	20 148 644,40	8 350 883,64	28 49	9 528	3,04				
						х 			
TreeMap 1	·	,5 5	🤌 🗶	Scat	ter 1	1 🛛	c	3	🤌 🗙
Guardian Bank	United Security	Internation	al Sec						
96,333.07\$	76,589.05\$	72,267.99\$;			1111111111111	1 1		
434.89\$	453.20\$	433.13\$		×	50%	Sanua	16		
	Primary Bank 8	Reserve Prin	narv I	arg	8				
	70.346.04\$	58.	281.8	μU	0				
Reserve Security	446.46\$	449	.36\$	Prof					
84,474.66\$				SS			X		
452.70\$				5			\mathbf{U}	/	
	International B	ank		l le	8				
	69,215.31\$			Se	5				
	445.94\$					0 50000 100000	15	5000	0
					F	Reseller Sales Amount			×
4) 🛛 🍢 TreeMap 1	🚼 Scatter 1 🛛 🤅	🖲 Dashboard 1					Searc	h	+

In the designer for this component put the "Date.Day of Week" into context and select the first day of the week:

Member Selector: Date/Date.Day of Week	x
Selection Filter Options	
🖃 Σ) 🗌 All Periods	
3	
4	
5	

Columns 🖼 🗖 🛨	Date/Date Calenc	lar + 👩 X							
	Date/Date/Calent		_						
Rows 😫 - +	Product/Product (Categories 👻 🗔 🗙							
			_						
Rows / Columns									
Context	Product/Pro	+ CY 2007	+ CY 2008	Total					
C > Date/Date Da	Road Bikes	1,669,765.68\$	742,036.00\$	2,411,801.67					
	Mountain Bi	1,221,168.57\$	781,229.38\$	2,002,397.95					
	Touring Bikes	542,685.66\$	1,192,863.49\$	1,735,549.15					
	Road Frames	338,348.75\$	102,948.01\$	441,296.76					
	Mountain Fr	318,876.00\$	220,929.06\$	539,805.06					
	Touring Fra	151,825.98\$	181,629.60\$	333,455.58					
Measures	Jerseys	47,202.85\$	33,427.20\$	80,630.05					
Measures	Wheels	45,116.98\$		45,116.98					
Reseller Sales Amount ×	Shorts	22,622.88\$	23,403.39\$	46,026.27					
	Vests	19,266.23\$	20,275.21\$	39,541.44					
	Gloves	16,817.91\$	3,817.33\$	20,635.24					
	Helmets	16,714.80\$	11,967.80\$	28,682.60					
	Cranksets	16,060.80\$	20,937.76\$	36,998.57					
	Bike Racks	14,905.27\$	17,984.69\$	32,889.96					
	Handlebars	14,720.18\$	8,655.01\$	23,375.18					
	Tights	14,047,55\$		14,047,55					
	Pedals	12,733.48\$	13,728.31\$	26,461.78					
	Bib-Shorts	11,361.45\$		11,361.45					
	Hydration P	5,367.40\$	6,758.86\$	12,126.26					
	Saddles	5,298.99\$	5,416.96\$	10,715.94					
	Brakes	5,112.00\$	5,878,80\$	10,990.80					
	Derailleurs	4,786.18\$	8,616.66\$	13,402.84					
	Bottom Brac	3,385,43\$	7,378,30\$	10,763.72					
	Headsets	2,841.04\$		2,841.04					
	Forks	2,185.92\$		2,185,92					
	Caps	2.032.01\$	1,154,59\$	3,186,60					
	Socks	1.393.56\$	1,564,77\$	2,958,33					
	Locks	1.050.00\$	-,+	1,050.00					
	Cleaners	1.016.99\$	1,109,96\$	2,126,96					
	Pumps	971.51\$	2/205004	971.51					
	Bottles and	645.77\$	655,80\$	1.301.57					
	Chains	485,76\$	1.020.10\$	1,505.86					
Highlight	Tires and Tu	115.42\$	92.06\$	207.47					
		110.420	52.00\$	207.47					

As a result we'll get the following report:

Context	Table 1						1	🗶 🔦 🔊 🏅
	Product/Pro	+ CY 2007	+ CY 2008	Total		C	Refresh Data	
	+ Road Bikes	1,669,765.68\$	742,036.00\$	2,411,801.6	57	G	Edit	
	+ Mountain	1,221,168.57\$	781,229.38\$	2,002,397.9	95	1	Luit	
	+ Touring B	542,685.66\$	1,192,863.49\$	1,735,549.1	.5		Copy and Place Below	
	🕂 Road Fra	338,348.75\$	102,948.01\$	441,296.7	76		Converse Diseases to the Disebet	
	🕂 Mountain	318,876.00\$	220,929.06\$	539,805.0)6		Copy and Place to the Right	
	🕂 Touring F	151,825.98\$	181,629.60\$	333,455.5	58		Make Multiple Copies	
	+ Jerseys	47,202.85\$	33,427.20\$	80,630.0)5		Convito a New Page	1
	+ Wheels	45,116.98\$		45,116.9	8		Copy to a New Page	
	+ Shorts	22,622.88\$	23,403.39\$	46,026.2	27		Rename	
	+ Vests	19,266.23\$	20,275.21\$	39,541.4	4			
	+ Gloves	16,817.91\$	3,817.33\$	20,635.2	24		Delete	
	+ Helmets	16,714.80\$	11,967.80\$	28,682.6	50		Description	
	🕂 Cranksets	16,060.80\$	20,937.76\$	36,998.5	57	-		
	🕂 Bike Racks	14,905.27\$	17,984.69\$	32,889.9	96	3	Print	
	🕀 Handlebars	14,720.18\$	8,655.01\$	23,375.1	.8	_		· •
	🕂 Tights	14,047.55\$		14,047.5	55			
	+ Pedals	12,733.48\$	13,728.31\$	26,461.7	8			
	TreeMap 1		Ċ	ء 🎸 发	Scatter	1	D	🗙 🔶 🔊 🎗
	Guardian Bank	United Sec	urity Interna	ational Sec			I []	
	96,333.07\$	76,589.055	\$ <mark>72,267</mark>	.99\$			<u> </u>	
	434.89\$	453.20\$	433.13	\$	x 8			
					- u			
						8		
							anua	r\/
					<u> </u>	-	MIIUU	
		Primary Ba	ank & Reserve	Primary I	2 %	- 7		-
		70 346 046	ŧ	58 281 8	0 3		3	
	Reserve Secur	ity 446.46\$	٢	449.36\$	te			
	84,474,66\$				S			~
Add	452.70\$				Ë I			
Table/Chart		Internation	nal Bank	1	<u>ه</u> . ه			
Treeman		69 215 314	ŧ		8 6			
Castles diseren		445.94\$	۲		2 P			
Scatter-ulagram					ſ	0	50000 100000	150000
Existing Page						Resell	er Sales Amount	×
🤹 Table 1 🛛 🎎 Table 1 ((4) 🛛 🚺 TreeMag	p 1 🛛 👫 Scatter 1	🚺 🙆 Dashboard	1			s	earch +

Save this component and close it. Now let us create several components based on that:

In the member selector window select all the rest days of the week:

Creation of multiple of the second	copies of a component	x				
Select a hierarchy a copy on them	from the list and elements to make					
Prefix for Component Name:	Table 1					
Hierarchy:	Date/Date.Day of Week	-				
Selection Filter Sort	ting Options					
🖃 🔁 🗌 All Periods						
0 1						
I I I I I I I I I I I I I I I I I I I						
V 4						
S						
7						

As a result we'll get this warning:



Pressing "Yes" will add a scrolling to the dashboard. The dashboard will look like this:

Context	Table 1				(Ċ	Ċ. 🥕	× -
	Product/Pro	+ CY 2007	+ CY 2008	Total				
	🕂 Road Bikes	1,669,765.68\$	742,036.00\$	2,411,801.67				A
	🕂 Mountain	1,221,168.57\$	781,229.38\$	2,002,397.95				
	🕂 Touring B	542,685.66\$	1,192,863.49\$	1,735,549.15				
	🕂 Road Fra	338,348.75\$	102,948.01\$	441,296.76				
	🕂 Mountain	318,876.00\$	220,929.06\$	539,805.06				—
	Table 1 2				c	Ċ	C. 🤌	💥 ≡
	Product/Pro	+ CY 2007	+ CY 2008	Total				
	Road Bikes	1,332,648.01\$		1,332,648.01				
	Mountain Bi	1,087,683.52\$		1,087,683.52				
	Touring Bikes	625,327.95\$		625,327.95				
	Mountain Fr	163,013.15\$		163,013.15				
	Road Frames	121.370.01\$	2.141.39\$	123.511.39				
	Table 1 3				c	Ċ	Č. 🥖	×
	Product/Pr	+ CY 2007	+ CY 2008 1	Total				
	Road Bikes	1,518,931.08\$	1,187,244.96\$	2,706,176.04				A
	Mountain B	827,850.44\$	970,235.73\$	1,798,086.16				
	Road Fram	187,222.58\$	91,619.61\$	278,842.19				
	Mountain F	176,103.87\$	201,866.96\$	377,970.83				
	Wheels	63,931.78\$		63,931.78				
	Tights	19,467.78\$		19,467.78				-
	Table 1 4				(Ċ	Ċ. 🥜	×
	Product/Prod	. + CY 2007	+ CY 2008	Total				
	Road Bikes	1,107,136.01	\$	1,107,136.0	1			A
	Touring Bikes	1,002,168.64	\$	1,002,168.6	4			
	Mountain Bike	s 992,569.77	\$	992,569.7	7			
	Mountain Fra	. 305,923.50	\$	305,923.5	0			
	Road Frames	286,422.59	\$	286,422.5	9			–
Add	Table 1 5				C	Ċ	C. 🥜	×
Table (Chart	Product/Pro	+ CY 2007	+ CY 2008	Total				
	Road Bikes	3,096,349.61\$	955,418.76\$	4,051,768.37				A
Treemap	Mountain Bi	2,250,218.82\$	765,665.86\$	3,015,884.68				
🎇 Scatter-diagram	Touring Bikes	973,645.62\$	938,258.09\$	1,911,903.72				
🎎 Existing Page	Mountain Fr	416,351.05\$	202,170.65\$	618,521.70				
	Road Ecomoc	100 474 104	105 100 454	202 576 64	1			
1 😹 Table 1 🛛 👬 Table 1 (4) 🛛 🚺 TreeMa	ap 1 🔡 👬 Scatter	1 🔊 Dashboard	1		Sea	arch	+

5.10.4 Exporting a Dashboard

You can save the dashboard as a picture in PNG format. Select the menu item "Export to PNG..." from the context menu or from the main menu "Dashboard":

Report	<u>P</u> age	<u>V</u> iew	<u>D</u> ata	<u>D</u> as	hboard	T <u>o</u> ols									
G 🕤 🗄	3 🗔			\checkmark	Scrolling		escri	ption 🕑 迭	🗘 🗙 🛠						
Dimensions	Ø 🕺 🕅	Conte	xt	<u>)</u>	Export to	NRP			_			c	6 5	3	< 🔺
🕀 时 Accour	nt 🔺) [+ CY 2007	+ CY 2008	Total		-		-	
i Custon	ner			橍	Export to	Excel	ces	1,669,765.68\$	742,036.00\$	2,411,801.67		_		E F	
□ İ⊠ Date				7	Export to	PDF	1	1,221,168.57\$	781,229.38\$	2,002,397.95				Ē	
🕀 💑 Dat	te			914	Export to	PNG	В	542,685.66\$	1,192,863.49\$	1,735,549.15					
⊕ u Dat	te 🗐			-	export to	- Thom		338,348.75\$	102,948.01\$	441,296.76					
⊕ na Dat	te			ے	Print		1	318,876.00\$	220,929.06\$	539,805.06					-
⊕ nå Dat	ta l			_		Table 1 2						C	8. 🤞	ې ک	< ≡
	to					Product/Pro	o [+ CY 2007	+ CY 2008	Total					
	LE					Road Bikes	;	1,332,648.01\$		1,332,648.01					
	le					Mountain B	i	1,087,683.52\$		1,087,683.52					
	te					Touring Bik	ces	625,327.95\$		625,327.95					
🕀 🔡 Dat	te					Mountain F	r	163,013.15\$		163,013.15					
🕀 🔡 Dat	te					Road Fram	es	121.370.01\$	2.141.39\$	123.511.39		_	_		31
🕀 🔢 Dat	te					Table 1 3						C	C. 🤞	ິ 🖇	۷.
🕀 🔢 Dat	te					Product/Pr.	(+	CY 2007	ECY 2008	Total					
🕀 🏭 Dat	te					Road Bikes	;	1,518,931.08\$	1,187,244.96\$	2,706,176.04					▲
🕀 🔛 Dat	te					Mountain B		827,850.44\$	970,235.73\$	1,798,086.16				1	=
	ta 🔛				i i	Road Fram.		187,222.58\$	91,619.61\$	278,842.19					
Measures						Mountain F		176,103.87\$	201,866.96\$	377,970.83					
🕥 Re:	seller. 🔺					Tights	_	63,931.78\$		63,931.78					
III Res	seller.							19,467.765		19,407.70					<u> </u>
III Res	seller.					Table 1 4						C	8. 1	۵ ک	K
🕥 Res	seller.					Product/Pro	od	+ CY 2007	+ CY 2008	Total					
💰 Re:	seller.					Road Bikes	;	1,107,136.01	\$	1,107,136.0	1				^
Re:	seller.					Touring Bik	ces	1,002,168.64	\$	1,002,168.6	4				=
I Res	seller.					Mountain B	ikes	992,569.77	5	992,569.7	7				
I Res	seller. 🔳					Mountain F	ra	305,923.50	5	305,923.5	0				
I Res	seller					Road Fram	es	286,422.59	5	286,422.5	9				-
E C Sales C	Duota					Table 1 5						c	6 5	3	<
Gales S	umm 🔻	Add				Product/Pro	[·	+ CY 2007	+ CY 2008	Total		-	V		1
<		Ta	ble/Chart	t		Road Bikes	;	3,096,349.61\$	955,418.76\$	4,051,768.37					
		Tre 🔝	eemap			Mountain B	i	2,250,218.82\$	765,665.86\$	3,015,884.68				1	
		Sci Sci	atter-diag	gram		Touring Bik	ces	973,645.62\$	938,258.09\$	1,911,903.72					
🗄 🛄 Sets		Ex	isting Pag	je		Mountain F	r	416,351.05\$	202,170.65\$	618,521.70					-
			T-LL 4			Dood From	00	100 474 104		202 576 64	1				
			Tâble 1		Table 1 (+) 💦 Tree	еМар	1 Scatter 1	Dashboard 🕚	11		Se	arch		-

After that you have to select the file on the disk. You will get the image of the dashboard.

5.11 Shared Pages

All the pages created by administrators, this user and other users have different icons:



Users can share their pages with other users. In order to share a page, press the right mouse button on the page and select the appropriate menu item. Other users and administrators will see this page with green icon:



If you click in the "Search" bar, you will be able to see who is the owner of the page:



Let us look at the example of sharing a page. User2 opens a report with 4 administrator pages, one page belongs to him (*«Table 2»*). He opens the context menu and selects "Share":



The page will look like this:

Sets	Highlight	Oashboard 1 Table 2	Search •
Login: user2 Server: http://uranus:88/ Rows: 5 Col	umns: 2		

When the User1 opens the same report, he will see this:



Shared access can be removed at any time by choosing the "Cancel Sharing" menu item:



You can select which type of the pages to look at:



6 Broadcasting Reports by Mail

After you create your report in BAT you will have the ability to set up the automatic broadcasting of those reports to the users' e-mails. Users will receive the reports in the special NRP format.

6.1 NRP files

NRP is the file format, developed for compact and safe storing of reports. There is a special NRP-files viewer, which you can find at the Business Analysis Tool web portal:



After downloading and installing the viewer you will be able to view NRP-files the same way as you do it with PDF, DOC and other types of files.

6.2 Setting Up the Mail Broadcast

Switch to the "List" tab and select the report for which you would like to set up a mail broadcast. Now press the "New Report Broadcast" button:



📦 Mail Broadcast	_ X
General Periods Format Pages Condition	Description
Status: Vail Broadcast is active	Occurs every 1 weeks on at 00:00. Schedule will be used starting on 1/10/2014.
Name: Vise report name	
Redefined name	
Notes: Here can be your notes	Next Run Never.
	OK Cancel

A form for mail broadcast settings will appear:

On the tab "General" you can select the status of the mail broadcast (you can change it later if necessary), assign a name to this broadcast or to use the report name instead, and to add the notes.

🟮 Mail Broadcast	_ ×
General Periods Format Pages Condition	Description
Mode Properties Once Repeate every 1 \$ weeks Daily Monday Tuesday Weekly Wednesday Wednesday Monthly Friday Saturday Sturday Sunday Sunday	Occurs every 1 weeks on Thursday at 10:00. Schedule will be used starting on 1/10/2014. Next Run Next run will be: 1/16/2014 10:00.
◎ Run once 1000 ↓	
© Repeat 1 € Hours from 00:00 € till 00:00 €	
Interval	
First start: 1/10/2014 • © End 1/10/2014 • © Endless	
	OK Cancel

On the tab "Periods" use the section "Mode" to select one of the scheduling modes:

In the section "Properties" set up the date and periods. In the lower left zone there is a possibility to set up the desired time, or to set up "send every N hours". Also there is a possibility to set up the end date of the mail broadcast. In the right part of the window there is a description that tells about when the mail broadcast will be working and what is the first date and time when it will run.

On the tab "Format" you will have to select the file type that will be sent:

🤤 Mail Broadcast	
General Periods Format Pages Conditio	n
Native Report Format (NRP)	
Native Report Format (NRP)	
Excel (XLSX)	
Portable Document Format (PDF)	



The tab "Pages" is used to select the set of pages that will be sent to the user:

There exist three types of pages: administrator pages, user pages and shared pages. It is possible to set up the desired type of page and to select the specific pages:

🟮 Mail Broadcast			
General Periods	Format	Pages	Condition
Owner type: Administrator Users Shared			
Page type: Table/Chart Treemap Scatter-diagram			
 All pages Selected pages 			
Search			
 ✓ My Pages ✓ TreeMap 31 ✓ Mike Jordan ✓ TreeMap 2 			

In the edit box "Search" there is a way to quickly select the pages by name:



The tab "Condition" allows to set up optional condition that will be checked to decide if to send the mail or not to send:

General Periods Format Pages Conditional Mode: Occorraditional Occurs once 12/10/2014 at 11:14. Other onditional Occurs once 12/10/2014 at 11:14. What to run? MOX Oreate Copy of an existing page What test to perform? Query should return any cells Query should not return any members on rows/columns Next Run Query should not return any members on rows/columns Never.	🏮 Mail Broadcast	- x
Mode: Occurs once 12/10/2014 at 11:14. Occurs once 12/10/2014 at 11:14. Occurs once 12/10/2014 at 11:14. What to run? MOX Orgae Occurs once 12/10/2014 at 11:14. MOX Occurs once 12/10/2014 at 11:14. What to run? MOX Orgae Query should return at least one cell Query should not return any members on rows/columns Never. Never. OK	General Periods Format Pages Condition	Description
OK Cancel	General Periods Format Pages Condition Mode: Unconditional © Conditional What to run? © MDX © Page Create © Query should return at least one cell © Query should return at least one member on rows/columns © Query should not return any members on rows/columns	Description Occurs once 12/10/2014 at 11:14. Next Run Never.
		OK Cancel

By default there are no conditions. It means that the mail broadcast will work always. But you can change it here:

🟮 Mail Broadcast	
General Periods Fo	ormat Users Pages Condition
Mode:	
C Unconditional	
Conditional	

- Unconditional: the report will be sent always;
- Conditional: the report will be sent only if the condition is met.

If you selected "Conditional", you have to set up the condition using one of the ways:

What to run?	eate		
© Page	eate	Copy of an existing page	

• MDX: you can write an arbitrary MDX by pressing the button "Create"



• you can create a new page or to use an existing page. If you create a new page, the window for page type selection will appear:

🟮 Report Page		x
Page Type:		
Table/Chart	Treemap	Scatter-diagram
		OK Cancel

In the case if you select an existing page, there will be another window:

🟮 Page Selector				x
Search		 		×
Administrator's Pages				
Table 1				
Table 2				
TreeMap 1				
TreeMap 1 (2)				
Table 3				
Table 5				
Table 7				
Table 4				
Table 8				
Table 1				
My Pages				
Table 1				
TreeMap 3				
John Connor				
TreeMap 2				
-	OK	Cance	el	

In both cases a new designer form will be open.

Then you have to define how the condition is checked. There are 4 ways:

- Query should return at least one cell;
- Query should not return any cells;
- Query should return at least one member on rows/columns;
- Query should not return any members on rows/columns.

The report will be sent only in the case if the condition is met.

Administrator also has a choice to select the user context under which the test will be performed:

- **Current user**: the check will be made in the context of the user for whom the report is generated;
- Administrator: the check is performed in context of administrator.

Note: to make sure the user gets the report by mail, their e-mail should be specified. Report module users also have a possibility to create mail broadcasts. But for the report users there are some restrictions: they can create mail broadcasts only for themselves, but not for other users. Therefore the tab "Users" is not shown for the users.

Let us set up the schedule so that all users will get a report *«Report 1»* on the first and third Monday of February every 2 hours till 6pm in NRP format, including just pages *«Table 1»* and *«Table 2»*. To achieve this goal, fill in the forms as shown:

🟮 Mail Broa	dcast							
General	Periods Format Pages Condition							
Status:	Mail Broadcast is active							
Name:	Name: 🔲 Use report name							
	Report 1							
Notes:	it's important							

The tab "Periods":

Mail Broadcast					- ×
General Periods	Format Pages	Condition			Description
Mode	Properties				Occurs every First, Third Monday in February at 10:00
© Once	© Day of month				between 12/17/2013 - 2/28/2014.
© Daily	₹ 1	V 9	17	25	
© Weekly	2	10	18	26	
Monthly	3	✓ 11	19	27	
	5	13	21	29	
	6	14	22	30	
	8	15	23	I 31	
	Every				
	V First		Monday		
	Second Third		Tuesday Wednesday		
	Fourth		Thursday		Next Run
	🕅 Last		Friday		Next run will be: 2/3/2014 10:00.
			Saturday		
	Month				
	🔲 January	🔲 April	🔲 July	Cctober	
	February	May	August	November	
	March	U June	September	December	
Burnara					
Run once	12:42				
🖲 Repeat	2 ‡ I	Hours from 10	:00 🗘 till	18:00 🗘	
Interval					
First start:	12/17/2013 🔹 🤇	🖲 End	2/2	8/2014 -	
	() Endless			
					OK Cancel

Select NRP on the tab "Format". Select the necessary pages on the "Pages" tab:



The tab "Condition" should be like this:

General Periods Format Pages Condition Mode: Image: Conditional Image: Conditional Image: Create Image: Create	Mail Broadcast	
Mode: Outconditional Conditional What to run? MDX Create Page Create Copy of an existing page What test do? Ouery should return at least one cell Ouery should return at least one cell Ouery should not return at least one cell Ouery should not return at least one cell Ouery should not return at least one cell Ouery should not return at least one cell Ouery should not return at least one cell Ouery should not return at least one cell Ouery should not return at least one element per row/column	Seneral Periods Format Pages	Condition
Oreate Page Create Page Create Opy of an existing page What test do? Query should return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell	Mode:	
 Conditional What to run? MDX Create Page Create Copy of an existing page What test do? Query should return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one element per row/column 	💿 Unconditional	
What to run? MDX Create Page Create Copy of an existing page What test do? Query should return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one element per row/column O Query should not return at least one element per row/column	Conditional	
MDX Create Page Create Copy of an existing page What test do? Query should return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one element per row/column O Query should not return at least one element per row/column	What to run?	
Create Page Create Copy of an existing page What test do? Query should return at least one cell Query should not return at least one cell Query should not return at least one cell Query should not return at least one element per row/column Ouery should not return at least one element per row/column	() MDX	
 Page Create Copy of an existing page What test do? Query should return at least one cell Query should not return at least one cell Query should not return at least one cell Query should return at least one element per row/column Ouery should not return at least one element per row/column 	Create	
Create Copy of an existing page What test do? Query should return at least one cell Query should not return at least one cell Query should not return at least one element per row/column O Query should not return at least one element per row/column	O Page	
What test do? Query should return at least one cell Query should not return at least one cell Query should return at least one element per row/column O Query should not return at least one element per row/column	Create	Copy of an existing page
 Query should return at least one cell Query should not return at least one cell Query should return at least one element per row/column Query should not return at least one element per row/column 	What test do?	
 Query should not return at least one cell Query should return at least one element per row/column Query should not return at least one element per row/column 	O Query should return at least one cell	
Query should return at least one element per row/column Query should not return at least one element per row/column	© Query should not return at least one	cell
O Query should not return at least one element per row/column	© Query should return at least one elem	ment per row/column
	O Query should not return at least one	element per row/column

After pressing «OK» you will get a new record in the list of mail broadcasts:

	Mail Broadcast	Status	Туре	Modified By
>	Occurs every First, Third Monday in February at 10:00 and each 2 hour(s) till 18:00. Schedule will be used between 12/17/2013 - 2/28/2014.	Active	Report (nrp)	Mikle Jordan(mikle)

Let us assume we need to get the report "Sales Loss" only in the case if the loss had place.

We want to make so that this report comes by mail every first day of every month at 10:00am, but only in the case if the sales of "Bikes" decreased in France in comparison with the previous month. If the sales did not decrease, it is not necessary to send the report.

To implement this task let us fill in the tab "General":

🧿 Mail Bro	padcast						
General	Periods Format Pages Condition						
Status:	Mail Broadcast is active						
Name:	Name: Use report name Falling sales						
Notes:	Here can be your notes						

🟮 Mail Broadcast				
General Periods	Format Users	Pages	Condition	
Mode	Properties			
O Once	Day of month			
© Daily	▼ 1	9	17	25
© Washla	2	10	18	26
O weekly	3	11	19	27
Monthly	4	12	20	28
	5	13	21	29
	 7	14	22	<u> </u>
	8	16	24	Last
	© Every			
	II All			
	🗐 First		✓ Monday	
	Second		Tuesday	
	Third		Wednesday	
	- Fourth		Eriday	
	C		Saturday	
			📃 Sunday	
	Month			V All
	🔽 January	V April	🔽 July	✓ October
	February	🔽 May	V August	Vovember
	March	💙 June	September	December
Time				
Run once	10:00 🗘			
© Repeat	1 🗘	Hours from	m 00:00 ‡ till	00:00 ‡

On the tab "Periods" set the following parameters:

Select NRP on the tab "Format". Select the necessary pages on the the tab "Pages":

🟮 Mail Broadcast
General Periods Format Pages Condition
Owner type: Administrator Users Shared
Page type: Table/Chart Treemap Scatter-diagram Dashboard
 All pages Selected pages
Search ×
V My Pages

Select "Conditional" on the tab "Condition":

🔕 Mail Broadcast
General Periods Format Pages Condition
Mode:
© Unconditional
Conditional
What to run?
© MDX
Create
Page
Create Copy of an existing page
What test to perform?
Query should return at least one cell
© Query should not return any cells
© Query should return at least one member on rows/columns
© Query should not return any members on rows/columns

Now we have a goal – to set up the condition "if the sales decreased in comparison with the previous month, then send the report, otherwise don't send".

The condition will be implemented using a regular table (like in regular reports). This table will contain a filter which checks the loss of sales. If the table returns at least one row, it means that the condition is met and the report should be sent.

Let us show how this should be set up:

Report Page		x
Page Type:		
Table/Chart	Image: state stat	Scatter-diagram
		OK Cancel

In the page designer let us select the following data:

Columns	100	- +	Geography	- 😡 x	
Rows	111	- +	Product/Pro	oduct Categories 👻	× 🔊
Rows / Colu	mns 📕	🌠 Filter	Sorting		
Context			Produc	+ France	
< > Date/Da	te.Ca	🖗 x	+ Bikes	-46.07%	
Measures Reseller Sales	Amount .	×			

To set up the date it is preferable to use the "floating period":

🟮 Member Selec	tor: Date/Date.Calendar	x
Selection Filter	Options	
Date Range	© Tree	
© Fixed period		
Ву	days 👻	
From	begin - to now -	
Floating period		
Ву	months 👻	
Last	1 Commonths including this month	
-	ata will be shown from 6/1/2008 to 6/30/2008.	



The rows contain the "Bikes" category, the columns contain France. The date is in context. Let us set up the filter:

This filter will return a row only in the case if the sales of bikes in the last month decreased in one of the countries in comparison to the previous month. Then let us save and close the page.

In the schedule settings in "What test to do" we have to select "Query should return at least one cell" (we know that the report will return data only in the case if there is a loss of sales):

😂 Mail Broadcast					
General Periods Format Pages Condition					
Mode:					
© Unconditional					
Conditional					
What to run?					
© MDX					
Create					
Page					
Edit Delete					
What test to perform?					
Query should return at least one cell					
© Query should not return any cells					
© Query should return at least one member on rows/columns					
© Query should not return any members on rows/columns					

After you press «OK» the list of mail broadcasts will have a new record:

	Mail Broadcast	Status	Туре	Modified By
>	Occurs 1 days in January, February, March, April, May, June, July, August, September, Oc	Active	Report (nrp)	John Connor(john)