Manual for Web Dashboard Designer

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## 1 Overview of the Web Dashboard Designer

Web Dashboard Designer allows you to create an Interactive dashboard in your browser. In Web Dashboard Designers you can create a new Interactive Dashboard in the browser, edit the existing one, save created dashboards, convert one type of dashboard element to another element type.

After entering the url link and successful log on:



You will see a window and all available Interactive reports in the tree view:



In the upper right corner you can see the username under which you're logged:

	🕏 BAT	× +		
K	-)→ ୯ û	i localhost:8002/Reports/Index	••• 🗵 🟠 🔍 Search	
	<mark> BAT</mark> Das	hboard <sub>Reports</sub>		John Connor
	Name		Notes	×
►	Dashboard Reports			

📦 BAT × + <) → ୯ ŵ ... ⊠ ☆ Q Search (i) localhost:8002/Reports/Index |||\ ⊡  $\equiv$ 🌱 BAT Dashboard Reports John Connor Name Notes Dashboard Reports ⊧ Dashboard for managers Þ

Theme (or skin) defines the outer view of the Web Dashboard Designer. You can use Light Theme or Dark Theme:

O BAT	× +			- a x
€ → ୯ û	localhost:8002/Reports/Index	🖂 🕁	Q, Search	II\ ⊡ ≡
😚 BAT Dash	board Reports			John Connor
Name		Notes		🖌 Light Theme
· Reports				Dark Theme
Dashboard (Versic	in 1 from 1/14/2019)			Sign Out

In the upper left corner you can quickly turn to the tree view of all report folders:

## 2 Viewing Interactive Dashboards in a browser

In order to open the Interactive Dashboard select the dashboard in the list and click on it:

• BAT	× +		- 🗆 X
$\leftarrow \rightarrow \times \mathbf{\hat{\omega}}$	i localhost:8002/Reports/Index	🚥 🔽 🗘 Search	III\ ⊡ ≡
🌱 BAT Dash	board Reports		John Connor
Name		Notes	
<ul> <li>Dashboard Reports</li> </ul>			
Dashboard (Versio	on 1 from 1/14/2019)		
Dashboard for manage	gers 🥄		
Waiting for localhost	ight © 2005-2019 BIT Ir	npulse. All rights reserved.	

BAT - Dashboard (Version 1)	× +						
← → ♂ ☆	D localhost 8002/Deshb	cardReport/in	dex?aReportItemID	=4ðidas	… ☺ ☆	Q. Search	N/ (D) =
😭 BAT Dashboar	d Reports						John Connor
DASHBOARDS				Sales by	Category		ů
Sales by Category	Reseller by Count	y - Roseller Or	der Quantity vs Im	ernet Ord	Reseller Sal	les Amount by Categol	iy .
Order by Category	4.95%	Aus <sub>Aus</sub>	tralia <sup>tralia</sup>	-91.81% -55.4K	- HOM Source Same Same Same Same Same Same Same Same	Accestories Bioces	Unite Added Reseller
	Grid 1	10.00					
	Bib-Shorts	Reseiler O	Reseller Sales Am.	Reseller Order		Reseller Sale	s Amount
	Bike Racks	468	\$190K	+2.51K 🕰			
	Sottles and Cages	444	37.496	5.00	Hikes: 57.41		
	Bottom Brackets	248	\$51.8K				According to the
	Brakes	295	566K			<b>K</b>	Antisensor and
89	Caps	1,194	\$31,5K	+ 3.03K 🔺			Componentiz 14.6
Edit in Designer	Chaine	250	SR. SEK				Clothing: 221%
	Classer	440	111.16	A Star			

On the left you can see list with Interactive Dashboards, to the right is the dashboard. If you need to return to the list of reports, use the button «Reports»:

BAT - Dashboard (Version 1)	× +			
↔ ở ŵ	D localhost 8002/DashboardReport/Ander/aReportItemID=4&das=	🖾 🕁	Q, Search	M\ © ≡
😭 BAT Dashboar	d Reports			John Connor
DASHBOARDS	Sat	is by Category		đ
Sales by Category	Reseller by Country - Reseller Order Quantity vs Internet Ord	Reseller Si	sies Amount by Category	
Order by Category	4.95%	*	Specialty Tike Shop	Value Addest Reseller

Then a window with the selected dashboard will open:

## 3 Creating an Interactive Dashboard

To create an Interactive Dashboard, select the folder where you want to add the Interactive Dashboard and press the button «Edit in Designer»:



In the Dashboard Web Designer window, open the Dashboard menu:



In the dashboard menu, select «New» from the list:

😵 BAT - Dashboard (V	/ersion 1) 🛛 🗙
← → ♂ ŵ	i
🌱 BAT Dashl	ooard
DASHBOARD MENU	×
New	راس
Open	0
Save	
Title	ia

### The following form will open:

🗣 BAT - Dashboard (Version 1)	× +	- 🗆 ×
	calhost:8002/DashboardReport/Index?aReportIterr … 🗵 🖒 🔍 Search	\ □ =
脊 BAT Dashboard	Reports	John Connor
DASHBOARD MENU	NEW	
New		
Open	Dashboard Name:	
Save	New Dashboard	
Title	Choose the data source for the dashboard	
	Choose the data source for the dashboard	
	AdventureWorks	
	Excel Data Source 1	
	SQL Data Source	
	Create	
	Copyright © 2005-2019 BIT Impulse. All rights reserved.	

- ✓ Dashboard Name
- $\checkmark$  Choose the data source for the dashboard

Fill out the form and click the button «Create»:						
😵 BAT - Dashboard (Vers	BAT - Dashboard (Version 1) × +					
← → ⊂ ŵ	(i) lo	calhost:8002/Dashb	oardReport/Index?aReportItem	⊌ ☆	Q Search	\ ⊡ ≡
🌱 BAT Dashbo	oard	Reports				John Connor
DASHBOARD MENU	X	NEW				
New						
Open			Dashboard Name			
Save			Dashboard_Sales			]
Title						-
			Choose the data source for t	he dashboard		
			AdventureWorks			
			Fund Data Course 1			
			Excel Data Source 1			
			SQL Data Source			
					Create	
						•



As a result, the Interactive Dashboard Designer window will open:

# 4 Adding Dashboard Items

To add any dashboard item, click the corresponding button in the Toolbox or drag an item from the Toolbox into the dashboard surface:





This creates an empty dashboard item, which you can now configure:

## 5 Dashboard Item Menu

The dashboard item menu allows you to configure a dashboard item. This menu provides interface to supply a dashboard item with data, specify interactivity settings, etc. To invoke this menu, click the required dashboard item.

≎	
₽5	
ير	Grīd
₹	<u>Click here</u> to bind this item to data
۵,	
l	

The dashboard item menu consists of the following buttons:

- allows you to customize a dashboard item layout using drag-and-drop operations;

- invokes the Binding menu that allows you to create and modify data binding of the selected dashboard item;

- invokes the Interactivity menu contains settings affected on interaction between various dashboard items;

- invokes the Options menu contains specific options and settings related to the current dashboard item. Settings can be combined into sections like Common, Legend, Colors, etc.;

- invokes the Convert To dialog that allows you to convert or duplicate the current



- deletes the current dashboard item from the dashboard surface.

## 6 Saving an Interactive Dashboard

To save the Interactive Dashboard, go to the Dashboard menu:



and select button «Save»:



## 7 Dashboard Items

Web Dashboard Designer allows you to create the following items:

- ✓ Pivot
- ✓ Grid
- ✓ Chart
- ✓ Scatter Chart
- ✓ Pies
- ✓ Treemap
- ✓ Gauges
- ✓ Cards
- ✓ Filter Elements
- ✓ Range Filter
- ✓ Image
- ✓ Text Box
- ✓ Group

## 7.1 Pivot

One of the dashboard items can be Pivot:

Sales by State-Province							
	CY 2005	CY 2006	CY 2007	CY 2008	Grand Total		
Alabama		\$3.11K	\$26.7K	\$15.6K	\$45.4K		
Alberta	\$203K	\$421K	\$516K	\$256K	\$1.4M		
Arizona	\$18.1K	\$260K	\$712K	\$443K	\$1.43M		
Bayern			\$118K	\$83.7K	\$202K		
Brandenburg			\$60.5K	\$56.2K	\$117K		
British Columbia	\$221K	\$1M	\$1.49M	\$711K	\$3.42M		
Brunswick		\$116K	\$151K	\$58K	\$325K		
California	\$1.17M	🗙 \$3.39M	🗙 \$3.56M	\$1.64M	\$9.76M		
Colorado	\$133K	\$730K	\$1.09M	\$446K	\$2.4M		
Connecticut	\$90.8K	\$373K	\$462K	\$200K	\$1.13M		
England		\$842K	\$2.16M	\$1.28M	\$4.28M		
Essonne		\$819	\$93.8K	\$57.8K	\$152K		
Florida	\$478K	\$701K	\$722K	\$398K	\$2.3M		

#### 7.1.1 Binding to Data

Add a Pivot item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Pivot to the data by clicking on button «Click here»:

or selecting the menu item «Binding»:



The result is a form that contains the following sections of Pivot data:

	VALUES
	Add Value
	COLUMNS
÷Ö-	Add Column
	ROWS
	Add Row
ىر	HIDDEN DIMENSIONS
≓	Add Dimension
茴	HIDDEN MEASURES
	Add Measure
	DATA / FILTERING 🔅
	AdventureWorks

VALUES	× ←			
Reseller Sales Amount	4 BINI	DING	[Product].[Category]	.[Category]
Add Value	\$	0	:	
COLUMNS	+	Internet S	Sales Order Details	
Calendar Year	+	- Organiza Product	tion	
Add Column		+ Financi	al	
ROWS	- 2	+ History		
	<u>_</u>	+ Stockin	g	
Category		Catego	ry	35
Add Row		Model I	Name	ab
F HIDDEN DIMENSIONS		Product	t	ab
		Product	t Line	ab
		Style		ab
HIDDEN MEASURES		Subcate	egory	ab
Add Measure				
	ОРТ	IONS		
	DAT	A SHAPING	i	
	CON	DITIONAL	FORMATTING	
	тор	'N		
AdventureWorks				

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:

Direct 4					
Pivot 1					
	CY 2005	CY 2006	CY 2007	CY 2008	Grand Total
Accessories	\$20.2K	\$92.7K	\$297K	\$162K	\$571K
Bikes	\$7.4M	\$20M	\$25.6M	\$13.4M	\$66.3M
Clothing	\$34.4K	\$486K	\$872K	\$386K	\$1.78M
Components	\$615K	\$3.61M	\$5.48M	\$2.09M	\$11.8M
Grand Total	\$8.07M	\$24.1M	\$32.2M	\$16M	\$80.5M

Filling in all the fields as in the picture above we will get the following report:

To clear the data field, click the «Delete» button next to the field (icon  $\frac{1}{2}$ ):

VALUES	×
Reseller Sales Amount	
Add Value	
COLUMNS	
Calendar Year	<b>ե</b> շիդ
Add Column	
ROWS	
Category	
Add Row	

# 7.1.2 Розгорнути / Згорнути

Add the Subcategory dimension to the Pivot:

VALUES	<del>~</del>	
Reseller Sales Amount	RINDING [Product].[Subcategory].[Subc	c
Add Value	بة ≣	
COLUMNS	+ Internet Sales Order Details	
Calendar Year	+ Organization — <b>Product</b>	
Add Column	+ Financial	
ROWS	+ History + Stocking	
Category	Category	ь
Subcategory 💼	Large Photo a Model Name a	b
Add Row	Product	b
HIDDEN DIMENSIONS	Product Line 2 a Style	b
Add Dimension	Subcategory	b

			Da	shboard_Sales		Ľ
F	Pivot 1			<b>_</b> ₽		
E		CY 2005	CY 2006	CY 2007	CY 2008	Grand Total
T	Accessories otal	\$20.2K	\$92.7K	\$297K	\$162K	\$571
L	Bike Racks			\$118K	\$79.3K	\$198
	Bottles and Cages			\$4.48K	\$3K	\$7.4
L	Cleaners			\$6.73K	\$4.46K	\$11.3
L	Helmets	\$20.2K	\$74.3K	\$113K	\$50.8K	\$259
	Hydration Packs			\$41.5K	\$24K	\$65.
	Locks		\$10.1K	\$6.14K		\$16.2
	Pumps		\$8.37K	\$5.15K		\$13.5
	Tires and Tubes			\$628	\$297	\$92
•	Bikes	\$7.4M	\$20M	\$25.6M	\$13.4M	\$66.3
Þ	Clothing	\$34.4K	\$486K	\$872K	\$386K	\$1.78
Þ	Components	\$615K	\$3.61M	\$5.48M	\$2.09M	\$11.8
G	irand Total	\$8.07M	\$24.1M	\$32.2M	\$16M	\$80.51

As a result, we get a Pivot where you can click on the **D** and **D** buttons you can expand / collapse the data to the desired level:

You can specify the default expanded state using the following options from "Options" menu:

	OPTIONS		×
	COMMON		
	LAYOUT		
	INITIAL STATE		
	AUTO-EXPAND COLUMN	GROUPS	
	YES	NO	
	AUTO-EXPAND ROW GRO	OUPS	
먉	YES	NO	
0			
	CONDITIONAL FORMATT	ING	
← ڨ			

### 7.1.3 Caption

Let's rename Pivot. To do this, select "Options / Common" menu item:

	OPTIONS	×
	COMMON	3
2	SHOW CAPTION	
	ON	OFF
	CAPTION	
	Sales by Category	
₽	LAYOUT	
野	INITIAL STATE	
4	CONDITIONAL FORMATT	ING
Ħ	0	
茴		

The following options are available in the window that opens:

- ✓ Show caption
- ✓ Caption

#### As a result, we get the following Pivot:

Sales by Cat	egory				
	CY 2005	CY 2006	CY 2007	CY 2008	Grand Total
<ul> <li>★ Accessories</li> <li>Total</li> </ul>	\$20.2K	\$92.7K	\$297K	\$162K	\$571K
Bike Racks			\$118K	\$79.3K	\$198K
Bottles and Cages			\$4.48K	\$3K	\$7.48K
Cleaners			\$6.73K	\$4.46K	\$11.2K
Helmets	\$20.2K	\$74.3K	\$113K	\$50.8K	\$259K
Hydration Packs			\$41.5K	\$24K	\$65.5K
Locks		\$10.1K	\$6.14K		\$16.2K
Pumps		\$8.37K	\$5.15K		\$13.5K
Tires and Tubes			\$628	\$297	\$925
<ul> <li>Bikes</li> </ul>	\$7.4M	\$20M	\$25.6M	\$13.4M	\$66.3M
<ul> <li>Clothing</li> </ul>	\$34.4K	\$486K	\$872K	\$386K	\$1.78M
Components	\$615K	\$3.61M	\$5.48M	\$2.09M	\$11.8M
Grand Total	\$8.07M	\$24.1M	\$32.2M	\$16M	\$80.5M

#### 7.1.4 Layout

The Pivot layout can be:

✓ Compact



1	Sales by Cate	gory				
		CY 2005	CY 2006	CY 2007	CY 2008	Grand Total
Ţ	Accessories otal	\$20.2K	\$92.7K	\$297K	\$162K	\$571K
	Bike Racks			\$118K	\$79.3K	\$198K
	Bottles and Cages			\$4.48K	\$3K	\$7.48K
	Cleaners			\$6.73K	\$4.46K	\$11.2K
	Helmets	\$20.2K	\$74.3K	\$113K	\$50.8K	\$259K
	Hydration Packs			\$41.5K	\$24K	\$65.5K
	Locks		\$10.1K	\$6.14K		\$16.2K
	Pumps		\$8.37K	\$5.15K		\$13.5K
	Tires and Tubes			\$628	\$297	\$925
-	Bikes Total	\$7.4M	\$20M	\$25.6M	\$13.4M	\$66.3M
	Mountain Bikes	\$4.55M	\$9.19M	\$8.85M	\$3.9M	\$26.5M
	Road Bikes	\$2.85M	\$10.8M	\$11.3M	\$4.45M	\$29.4M
	Touring Bikes			\$5.4M	\$5.05M	\$10.5M
Þ	Clothing	\$34.4K	\$486K	\$872K	\$386K	\$1.78M
Þ	Components	\$615K	\$3.61M	\$5.48M	\$2.09M	\$11.8M
G	rand Total	\$8.07M	\$24.1M	\$32.2M	\$16M	\$80.5M

✓ Tabular



Sales by Ca	tegory					
		CY 2005	CY 2006	CY 2007	CY 2008	Grand Total
	Bike Racks			\$118K	\$79.3K	\$198K
	Bottles and Cages			\$4.48K	<b>\$</b> 3K	\$7.48K
	Cleaners			\$6.73K	\$4.46K	\$11.2K
	Helmets	\$20.2K	\$74.3K	\$113K	\$50.8K	\$259K
	Hydration Packs			\$41.5K	\$24K	\$65.5K
	Locks		\$10.1K	\$6.14K		\$16.2K
	Pumps		\$8.37K	\$5.15K		\$13.5K
	Tires and Tubes			\$628	\$297	\$925
Accessories To	otal	\$20.2K	\$92.7K	\$297K	\$162K	\$571K
▼ Bikes	Mountain Bikes	\$4.55M	\$9.19M	\$8.85M	\$3.9M	\$26.5M
	Road Bikes	\$2.85M	\$10.8M	\$11.3M	\$4.45M	\$29.4M
	Touring Bikes			\$5.4M	\$5.05M	\$10.5M
Bikes Total		\$7.4M	\$20M	\$25.6M	\$13.4M	\$66.3M
Clothing		\$34.4K	\$486K	\$872K	\$386K	\$1.78M
Component	s	\$615K	\$3.61M	\$5.48M	\$2.09M	\$11.8M
Grand Total		\$8.07M	\$24.1M	\$32.2M	\$16M	\$80.5M

#### 7.1.5 Totals

You can control the visibility of totals and grand totals for the entire Pivot dashboard item. You can change the position of totals/grand totals for the Pivot dashboard item:

	OPTIONS	Х						
	COMMON							
	LAYOUT							
LAYOUT								
	Compact	Tabular						
	COLUMN TOTALS							
	ON	OFF						
	ROW TOTALS							
	ON	OFF						
	COLUMN GRAND TOTAL	5						
	ON	OFF						
	ROW GRAND TOTALS							
	ON	OFF						
	COLUMN TOTALS POSITI	ON						
	Far	Near						
	ROW TOTALS POSITION							
	Bottom	Тор						
	VALUES POSITION							
	Columns	Rows						

Totals Visibility – you can display / not display the row / column totals (grand totals):

COLUMN TOTALS						
ON	OFF					
ROW TOTALS						
ON	OFF					
COLUMN GRAND TOTAL	5					
ON	OFF					
ROW GRAND TOTALS						
ON	OFF					

For instance, the image below displays the Pivot dashboard item with the disabled row totals:

		Grand	d Total				
		Order Count	Sales Amount				
- CY	CY Q1	1.09K	\$6.68M			Gran	d Total
2007	CY Q2	1.26K	\$8.36M			Order Count	Sales Amount
	CY Q3	4.15K	\$13.7M	<del>▼</del> CΥ	CY Q1	1.09K	\$6.68M
	CY Q4	5.94K	\$13.3M	2007	CY Q2	1.26K	\$8.36M
CY 2007 Total							
CY 2007 To	otal	12.4K	\$42M		CY Q3	4.15K	\$13.7M
CY 2007 To	CY Q1	12.4K 6.08K	\$42M \$11.4M		CY Q3 CY Q4	4.15K 5.94K	\$13.7M \$13.3M
CY 2007 To - CY 2008	CY Q1 CY Q2	12.4K 6.08K 6.89K	\$42M \$11.4M \$14.4M		CY Q3 CY Q4 CY Q1	4.15K 5.94K 6.08K	\$13.7M \$13.3M \$11.4M
CY 2007 To • CY 2008	CY Q1 CY Q2 CY Q3	12.4K 6.08K 6.89K 976	\$42M \$11.4M \$14.4M \$50.8K	▼ CY 2008	CY Q3 CY Q4 CY Q1 CY Q2	4.15K 5.94K 6.08K 6.89K	\$13.7M \$13.3M \$11.4M \$14.4M
CY 2007 To - CY 2008 CY 2008 To	CY Q1 CY Q2 CY Q3 CY Q3	12.4K 6.08K 6.89K 976 13.9K	\$42M \$11.4M \$14.4M \$50.8K \$25.8M	▼ CY 2008	CY Q3 CY Q4 CY Q1 CY Q2 CY Q3	4.15K 5.94K 6.08K 6.89K 976	\$13.7M \$13.3M \$11.4M \$14.4M \$50.8K

✓ Totals Position – you can change the position of totals/grand totals:

COLUMN TOTALS POSITION						
Far	Near					
ROW TOTALS POSITION						
Bottom Top						

For instance, in the Image below the Pivot dashboard item whose row totals are moved from bottom to top:

Sales by	les by Category 📫 🖏				Sales by Category			
		Grand	d Total			Grand	d Total	
		Order Count	Sales Amount			Order Count	Sales Amount	
- CY CY Q1		1.09K	\$6.68M	Grand Total		26.4K	\$67.8M	
2007	CY Q2	1.26K	\$8.36M	- CY 2007 Total		12.4K	\$42M	
	CY Q3	4.15K	\$13.7M	CY 2007	CY Q1	1.09K	\$6.68M	
	CY Q4	5.94K	\$13.3M		CY Q2	1.26K	\$8.36M	
CY 2007 Total		12.4K	\$42M		CY Q3	4.15K	\$13.7M	
	CY Q1	6.08K	\$11.4M	M CY Q		5.94K	\$13.3M	
2008	CY Q2	6.89K	\$14.4M	- CY 2008	Total	13.9K	\$25.8M	
	CY Q3	976	\$50.8K	CY 2008	CY Q1	6.08K	\$11.4M	
CY 2008 To	otal	13.9K	\$25.8M		CY Q2	6.89K	\$14.4M	
Grand Total		26.4K	\$67.8M		CY Q3	976	\$50.8K	

✓ Values Visibility – the Pivot dashboard item can contain several measures in the Values section.

To do this, go to the menu item "Binding", select the measure, in the item "Options / Show values" set the value "No":

	VALUES	Х	÷				
	Order Count		BINDING	[Meas	sures].[Sales Amount]		
	Sales Amount	曲	OPTIONS				
	Add Value	2	CAPTION 3				
	COLUMNS						
	Category		SHOW VALUES				
	Add Column		YES		NO		
-04	POWS		SHOW TOTALS		4		
5			YES		NO		
C	Calendar Year		SHOW GRAND	TOTALS			
	Calendar Quarter of Yea	r	YES		NO		
₽	Add Row						
茴	HIDDEN DIMENSIONS Add Dimension HIDDEN MEASURES		CONDITIONAL F	ORMATTIN	IG		
			FORMAT		Currency		
	Add Measure						

Sales b	by Category						
		Accessories		Bikes		Grand Total	
		Order Count	Sales Amount	Order Count	Sales Amount	Order Count	Sales Amount
- CY 2007	CY Q1	80	\$15.6K	1.04K	\$6.1M	1.05K	\$6.12M
	CY Q2	108	\$32.7K	1.19K	\$7.02M	1.2K	\$7.06M
	CY Q3	3.22K	\$259K	1.96K	\$10.5M	3.83K	\$10.8M
	CY Q4	4.68K	\$283K	2.75K	\$11.3M	5.5K	\$11.6M
• CY     2008	CY Q1	4.74K	\$228K	2.87K	\$10.3M	5.65K	\$10.5M
	CY Q2	5.34K	\$307K	3.66K	\$12.3M	6.42K	\$12.6M
	CY Q3	867	\$33.7K			867	\$33.7K

### For instance, the image below shows the Pivot with hidden "Sales Amount" values.

Sales by Category								
		Accessories	Bikes	Grand Total				
		Order Count	Order Count	Order Count	Sales Amount			
→ CY	CY Q1	80	1.04K	1.05K	\$6.12M			
2007	CY Q2	108	1.19K	1.2K	\$7.06M			
	CY Q3	3.22K	1.96K	3.83K	\$10.8M			
	CY Q4	4.68K	2.75K	5.5K	\$11.6M			
✓ CY 2008	CY Q1	4.74K	2.87K	5.65K	\$10.5M			
	CY Q2	5.34K	3.66K	6.42K	\$12.6M			
	CY Q3	867		867	\$33.7K			
✓ Values Position – the Pivot dashboard item allows you to control the position of headers used to arrange summary values corresponding to different measures.

		VALUES PO	SITION					
		Col	lumns	Rows				
					Sales b	y Category	/	
								Grand Total
					▼ CY 2007	CY Q1	Order Count	1.09K
							Sales Amount	\$6.68M
						CY Q2	Order Count	1.26K
Sales b	y Category	,					Sales Amount	\$8.36M
		Gran	d Total		CY 2007	Total	Order	2.35K
		Order Count	Sales Amou	unt			Count	
- CY	CY Q1	1.09K	\$6.6	8M			Sales Amount	\$15M
2007	CY Q2	1.26K	\$8.3	6M	Grand Total		Order Count	2.35K
CY 2007 Total Grand Total		2.35K 2.35K	\$1	5M 5M			Sales Amount	\$15M

### 7.1.6 Conditional Formatting

The Pivot dashboard item supports the conditional formatting:

	Accessories		В	ikes	Grand Total	
	Order Count	Sales Amount	Order Count	Sales Amount	Order Count	Sales Amount
January	1.57K	\$78.5K	1.39K	\$5.6M	2.33K	\$5.68M
February 🔶	1.62K	\$83.9K	1.62K	\$8.74M	2.51K	\$8.83M
March	1.67K	\$86.7K	1.64K	\$7.69M	2.58K	\$7.77M
April	1.72K	\$102K	1.64K	\$6.79M	2.57K	\$6.9M
May 🔶	1.95K	\$131K	2.02K	\$10.1M	2.98K	\$10.2M
June 🔺	1.84K	\$119K	2.01K	\$8.19M	2.88K	\$8.31M
July	1.34K	\$91.5K	1.09K	\$6.02M	1.96K	\$6.11M
August 🔺	1.48K	\$129K	1.26K	\$9.02M	2.22K	\$9.15M
September	1.47K	\$125K	1.21K	\$7.88M	2.11K	\$8M
October	1.5K	\$94.7K	1.19K	\$6.05M	2.13K	\$6.14M
November ★	1.55K	\$113K	1.4K	\$9.45M	2.3K	\$9.56M
December ★	1.8K	\$119K	1.91K	\$9.1M	2.83K	\$9.22M
Grand Total	19.5K	\$1.27M	18.4K	\$94.6M	29.4K	\$95.9M

To create a conditional formatting for dimensions / measurements, select the item that will calculate the conditional formatting, open its menu, and go to the menu item "Conditional Formatting".

# Click on "+" to add a new item:

VALUES X	<i>←</i>
Order Count	BINDING [Measures].[Sales Amount]
Sales Amount 💼	OPTIONS
Add Value	CONDITIONAL FORMATTING
COLUMNS	
Category	Click + to add a new item.
Add Column	
ROWS	
Month of Year	

Then, specify the data item to which conditional formatting is applied using the Apply to combo box and select the condition type:

$\leftarrow$	
COMMON	
CALCULATED BY	
Values - Sales Amount	•
APPLY TO	
Values - Sales Amount	-
CONDITION TYPE	
Value	+
Top/Bottom	) - F
Average	Þ
Expression	
Icon Ranges	•
Range Set	•
Range Gradient	•
Bar	
Color Range Bar	•

Let's highlight the top 5 "Sales Amount" measures for product categories. To do this, add a "Top / Bottom" format rule with the following parameters:

← Format Rule 2: Top/Bottom					
COMMON					
CONDITION					
STYLE	-				
Appearan	ce	lcons			
COUNT					
5		<b>•</b>			
RANK TYPE	1				
Number	r i i	Percent			

As a result, we get the following report:

Sales by Category								
	Accessories			Bikes	Gran	Grand Total		
	Order Count	Sales Amount	Order Count	Sales Amount	Order Count	Sales Amount		
January	1.57K	\$78.5K	1.39K	\$5.6M	2.33K	\$5.68M		
February	1.62K	\$83.9K	1.62K	🚖 \$8.74M	2.51K	\$8.83M		
March	1.67K	\$86.7K	1.64K	\$7.69M	2.58K	\$7.77M		
April	1.72K	\$102K	1.64K	\$6.79M	2.57K	\$6.9M		
May	1.95K	\$131K	2.02K	★ \$10.1M	2.98K	\$10.2M		
June	1.84K	\$119K	2.01K	\$8.19M	2.88K	\$8.31M		
July	1.34K	\$91.5K	1.09K	\$6.02M	1.96K	\$6.11M		
August	1.48K	\$129K	1.26K	★ \$9.02M	2.22K	\$9.15M		
September	1.47K	\$125K	1.21K	\$7.88M	2.11K	\$8M		
October	1.5K	\$94.7K	1.19K	\$6.05M	2.13K	\$6.14M		
November	1.55K	\$113K	1.4K	🚖 \$9.45M	2.3K	\$9.56M		
December	1.8K	\$119K	1.91K	🚖 \$9.1M	2.83K	\$9.22M		
Grand Total	19.5K	\$1.27M	18.4K	\$94.6M	29.4K	\$95.9M		

In abstract 5.16 a process of creation of formatting rules is described in more details.

# 7.2 Grid

One of the dashboard items can be Grid:

Grid 1			
Category	Sales Am	Gross Profit Margin	Reseller vs In
Accessor	<b>\$1.27</b>		-10.3K 🔻
Bikes	\$94.6	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	+59.8K 🔺
Clothing	<b>\$2.12</b>	•••••••••••••••••••••••••••••••••••••••	+55.4K 🔺

### 7.2.1 Binding to Data

Add a Grid item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Grid to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form that contains the following sections of Grid data:

	COLUMNS
	Add Column
	SPARKLINE
-	Set Argument
-Q1	HIDDEN DIMENSIONS
5	Add Dimension
ىر	HIDDEN MEASURES
t	Add Measure
茴	
	DATA / FILTERING 🌣
	AdventureWorks

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:



Filling in all the fields as in the picture above we will get the following report:

Category	Sales Amount	Gross Profit Margin	Reseller Order Quantity
Accessori	\$1.27M	49.88%	25.8K
Bikes	\$94.6M	11.11%	75K
Clothing	\$2.12M	17.42%	64.5K

To clear the data field, click the «Delete» button next to the field (icon  $\overline{\square}$ ):



### 7.2.2 Column type

Columns in a grid may be of the following type:

		Measure	column		Sparkline column
Dir	nension colun	nn		Delta column	
	Category	Sale	s Amount	Gross Profit Margin	Reseller vs Inter
	Accessories	•	\$1.27M		-10.3K 🔻
	Bikes	<b></b>	\$94.6M	·	+59.8K 🔺
	Clothing	-	\$2.12M	•••••••••••••••••••••••••••••••••••••••	+55.4K 🔺

- ✓ Dimension a dimension column displays values from the bound data item "as is";
- Measure a measure column displays summaries calculated against data in the bound data item. Values in the measure column can be displayed as text or represented by bars:

	1						
COLUMNS	÷			Grid 1			
Category	TYPE			Category	Sales Amount	Gross Profit Margin	Reseller Order Quantity
	L Σ A	ABC		Accessories		49.88%	25.8K
Sales Amount				Bikes		11.11%	75K
Gross Profit Margin	BINDING	[Measures].[Sales Amount]		Clothing		17.42%	64.5K
Reseller Order Quantity	OPTIONS						
Add Column							
SPARKLINE	Sales Amount		-Q-				
Month of Year	DISPLAY MODE	3	먌				
HIDDEN DIMENSIONS	Value	Bar	يو				
Add Dimension	ALWAYS SHOW ZERO	) LEVEL					
HIDDEN MEASURES	ON	OFF	<u> </u>				
Add Measure			茴				

- ✓ Delta a delta column calculates summaries against two measures: the Actual value and the Target value;
- $\checkmark$  Sparkline a sparkline column visualizes the variation of summary values over time.

#### 7.2.3 Delta column

A delta column calculates summaries against two measures: the Actual value and the Target value. When you switch the column type to Delta, a new Target data item container appears.:

		_			LIT.	
COLUMNS	<i>←</i>		Grid 1		Ŧ	
Category	турғ		Category	Sales Amount	Gross Profit Margin	Reseller Order Quantity
			Accessories		49.88%	25.8K
Sales Amount			Bikes		11.11%	75K
Gross Profit Margin	Reseller Order Quantity		Clothing		17.42%	64.5K
Reseller Order Quantity	Target					
Add Column	- Sign	_				
SPARKLINE	OP 3	Р.				
Month of Year	CAPTION	문				
HIDDEN DIMENSIONS	Reseller Order Quantity	يو				
Add Dimension						
HIDDEN MEASURES	DELTA OPTIONS	<b>—</b>				
Add Measure	TOTALS	茴				

In our case, the actual is the "Relseller Order Quantity", and the "Internet Order Quantity" is the target:

$\leftarrow$		
TYPE $L$ $\Sigma$ $\Delta$ $\sim$ <u>ABC</u>		
Reseller Order Quantity		
Internet Order Quantity		
OPTIONS		
CAPTION		
Reseller Order Quantity vs Internet Order Qu		
DELTA OPTIONS		
TOTALS		

As a result, we get the following table:

Grid 1			
Category	Sales Amount	Gross Profit Ma	Reseller Order Quantity vs Internet Orde
Access		49.88%	-10.3K 🔻
Bikes		11.11%	+59.8K 🔺
Clothing		17.42%	+55.4K 🔺

The Delta column has the following options:

✓ Display mode

	DELTA OPTIONS		
	DISPLAY MODE		
	Value	Bar	
Res	eller Order Quantity vs	Reseller Order Quantity vs	
	-10.3K 🔻		
	+59.8K 🔺		
	+55.4K 🔺		

✓ Value type

VALUE TYPE		
Actual value		
Absolute variation		
Percent variation		
Percent of target		

- Actual value an actual measure value;
- Absolute variation difference between an actual and a target;
- Percent variation percent of difference between an actual and a target;
- Percent of target percent of an actual and a target.

✓ Result indication

RESULT INDICATION		
Greater is good		
Less is good		
Warning if greater		
Warning if less		
No indication		

- Greater is good «good» a target is achieved (an actual is bigger than a target);
- Less is good «bad» a goal is not achieved (an actual is less than a target);
- Warning if greater a target is bigger than an actual;
- Warning if less a target is less than an actual;
- No indication indication is not displayed.
- ✓ Threshold type

Percent	
	¢
	Percent

For the delta, you can set the threshold value, which will indicate the excess of the actual above the target.

The threshold type can be absolute or percent.

#### 7.2.4 Sparkline Column

A sparkline column visualizes the variation of summary values over time.

Gross Profit Margin
·
•••••••••••••••••••••••••••••••••••••••

The sparkline column is bound to the measure providing sparkline values and to the dimension providing a date-time interval. Add the required date-time dimension to the Sparkline placeholder to show values depending on time:

COLUMNS X	$\leftarrow$
Category	ТҮРЕ
Gross Profit Margin	$L \Sigma \Delta \sim ABC$
Reseller vs Internet	BINDING [Measures].[Gross Profit Margin]
Add Column	
SPARKLINE	- Measures
Month of Year	+ Calculations

You can specify the following parameters for the Sparkline column:

COLUMNS	Х	<del>&lt;</del>
Category		ТҮРЕ
Gross Profit Margin	<b>a</b>	Ĺ→ Σ Δ 🕶 ABC
Reseller vs Internet		BINDING [Measures].[Gross Profit Margin]
Add Column		OPTIONS
SPARKLINE		1
Month of Year		SPARKLINE OPTIONS
HIDDEN DIMENSIONS		SHOW START/END VALUES
Add Dimension		ON OFF
HIDDEN MEASURES		
Add Measure		HIGHLIGHT MIN/MAX POINTS
		ON OFF
		HIGHLIGHT START/END POINTS
		ON OFF

✓ Show start/end values – species whether or not to display sparkline start/end values within a grid cell;

- ✓ View type:
  - line
  - area
  - bar
  - win/loss
- ✓ Highlight min/max point
- ✓ Highlight start/end point

### 7.2.5 Totals

The Grid dashboard item enables you to add a summary value (a total) calculated against displayed values of an individual column, and to show the result under this column. Note that you can add any number of totals for each column. For example, you can obtain the number of column records, average or maximum value, etc.:



Subcategory	Sales Amount	Order Count
Bib-Shorts	\$167K	390
Bike Racks	\$237K	796
Bike Stands	\$39.6K	249
Bottles and Cages	\$64.3K	5.21K
Bottom Brackets	\$51.8K	248
Brakes	\$66K	295
Caps	\$51.2K	3.38K
Chains	\$9.38K	250
Cleaners	\$18.4K	1.33K
Cranksets	\$204K	261
Derailleurs	\$70.2K	283
Fenders	\$46.6K	2.12K
Forks	\$77.9K	133
Gloves	\$243K	2.42K
Handlebars	\$171K	1.01K
Headsets	\$60.9K	137
Helmets	\$484K	7.51K
Hydration Packs	\$106K	1.07K
Count = 35	Avg = \$3.14M Sum = \$110M	Min = 133 Max = 10K

### 7.2.6 Conditional Formatting

The Grid dashboard item supports the conditional formatting:

Subcategory	Sales Amount	Order Count
Bib-Shorts	\$167K	390
Bike Racks	\$237K	796
Bike Stands	\$39.6K	249
Bottles and Cages	\$64.3K	5.21K
Bottom Brackets	\$51.8K	248
Brakes	\$66K	295
Caps	\$51.2K	3.38K
Chains	\$9.38K	250

To create a conditional formatting for dimensions / measurements, select the item that will calculate the conditional formatting, open its menu, and go to the menu item "Conditional Formatting".

Click on "+" to add a new item:

COLUMNS	$\leftarrow$
Subcategory	ТҮРЕ
Sales Amount	$L \Sigma \Delta \sim ABC$
Order Count	BINDING [Measures], [Sales Amount]
Add Column	OPTIONS
SPARKLINE	
Set Argument	TOTALS ON
HIDDEN DIMENSIONS	CONDITIONAL FORMATTING
Add Dimension	+ ∥ ↓ ↑ 👘
HIDDEN MEASURES	Click + to add a new item.
Add Measure	

Then, specify the data item to which conditional formatting is applied using the Apply to combo box and select the condition type:

COMMON	
CALCULATED BY	
Sales Amount	-
APPLY TO	
Sales Amount	-
CONDITION TYPE	
Value	•
Top/Bottom	•
Average	•
Expression	
Icon Ranges	•
Range Set	•
Range Gradient	•
Bar	
Color Range Bar	•
Bar Gradient Ranges	•

Let's create a conditional formatting for the "Sales Amount" measure. To do this, set a "Range Gradient" for the Sales Amount measure with the following parameters:

CALCULATED BY		
Sales Amount	-	
APPLY TO		
Sales Amount	-	
CONDITION TYPE		/ Range Gradient
		2 COLOR GRADIENT RANGES
Value	•	
Top/Bottom	+	
Average	•	
Expression		
Icon Ranges	•	
Range Set	•	
Range Gradient	+	Red Blue
Bar		
Color Range Bar	•	3 COLOR GRADIENT RANGES
Bar Gradient Ranges	•	

VALUE TYPE			
Percent			•
SEGMENT N	UMBER		
10			\$
	100	≥	90
	90	≥	80
	80	≥	70
	70	≥	60
	60	≥	50
	50	≥	40
	40	≥	30
	30	≥	20
	20	≥	10
	10	≥	0

As a result, we get the following report:

Subcategory	Sales Amount	Order Count
Bib-Shorts	\$167K	390
Bike Racks	\$237K	796
Bike Stands	\$39.6K	249
Bottles and Cages	\$64.3K	5.21K
Bottom Brackets	\$51.8K	248
Brakes	\$66K	295
Caps	\$51.2K	3.38K
Chains	\$9.38K	250
Cleaners	\$18.4K	1.33K
Cranksets	\$204K	261
Derailleurs	\$70.2K	283
Fenders	\$46.6K	2.12K
Forks	\$77.9K	133
Gloves	\$243K	2.42K
Handlebars	\$171K	1.01K
Headsets	\$60.9K	137
Helmets	\$484K	7.51K
Hydration Packs	\$106K	1.07K
Jerseys	\$752K	4.78K
Locks	\$16.2K	259
Pedals	\$147K	756
Pumps	\$13.5K	267
- · · ·	655 OK	700
Count = 29	Avg = \$172K Sum = \$4.98M	Min = 133 Max = 10K

In abstract 7.16 a process of creation of formatting rules is described in more details.

### 7.2.7 Layout

The Grid dashboard item allows you to customize its layout in various ways. You can manage the width of grid columns, specify the visibility of column headers, enable cell merging, etc.

To access the layout settings, use the "Layout" section in the Grid's **Options** menu. The following settings are available.:

OPTIONS	X
COMMON	
LAYOUT	
HORIZONTAL LINES	
ON	OFF
VERTICAL LINES	
ON	OFF
BANDED ROWS	
ON	OFF
COLUMN HEADERS	
ON	OFF
WORD WRAP	
ON	OFF
COLUMN WIDTH MODE	
AutoFit to Contents	
AutoFit to Grid	
Manual	

- ✓ Horizontal lines show horizontal grid lines;
- ✓ Vertical lines show vertical grid lines;
- ✓ Bander rows banded rows are not supported when cell merging is enabled;
- ✓ Column header show column headers;
- ✓ Word wrap;
- ✓ Column width mode:
  - AutoFit to Contents
  - AutoFit to Grid
  - Manual

# 7.3 Chart

One of the dashboard items can be Chart:



## 7.3.1 Binding to Data

Add a Chart item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Chart to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form that contains the following sections of Chart data:

<b>†</b>	Х
VALUES	
Add Values	
ARGUMENTS	
Add Argument	
SERIES	
Add Series	
HIDDEN DIMENSIONS	
Add Dimension	
HIDDEN MEASURES	
Add Measure	
DATA / FILTERING 🔅	
AdventureWorks	

- ✓ Values measure, data is displayed on the Y-axis;
- ✓ Arguments dimension, data is displayed on the X-axis;
- $\checkmark$  Series dimension, data that is used to create series.

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:

<b>*</b> ×	÷
VALUES	BINDING [Date].[Calendar Year].[Calend
Reseller Sales Amount	
Add Values	
ARGUMENTS	+ Account + Customer
Category	– Date
Add Argument	Calendar Quarter of Year ab
SERIES	Calendar Semester of Year ab Calendar Week of Year ab
Calendar Year 🛛 🛱	Calendar Year
Add Series	Date.Calendar
HIDDEN DIMENSIONS	+ Fiscal
Add Dimension	Date O
	a ay mane



Filling in all the fields as in the picture above we will get the following report:

## 7.3.2 Series Type

By default, Chart visualizes data using the "Bar" series. To switch between series types, click the required data item in the "Values" section and select the required series type in the invoked data item menu.:

<b>†</b>	Х	<i>←</i>
VALUES		TYPE
Reseller Sales Amount	<b>a</b>	• • • * 3. iii iii iii · •
Add Values		
ARGUMENTS		BAR
		.11 .11 .11
Category		POINT / LINE
Add Argument		·· ~ ~ ~ J ~
SERIES		AREA
Calendar Year		
Add Series		RANGE
HIDDEN DIMENSIONS		III ~
Add Dimension		BUBBLE
HIDDEN MEASURES		•••
Add Measure		

#### 7.3.3 Series Options

To configure common series options, go to the data item's "Options" section.

Here you can specify whether or not to plot the current series on the secondary axis, configure point markers behavior, etc.

The following options are available:

	×	$\leftarrow$
VALUES		ТҮРЕ
Reseller Sales Amount	Ē	···· » ~ :: iii !:
Add Values		
ARGUMENTS		BINDING [Measures].[Reseller Sales Am
Category		OPTIONS
Add Argument	-	CAPTION
SERIES		Reseller Sales Amount
Calendar Year		PLOT ON SECONDARY AXIS
		ON OFF
Add Series		IGNORE EMPTY POINTS
HIDDEN DIMENSIONS		ON OFF
Add Dimension		SHOW POINT MARKERS
HIDDEN MEASURES		ON OFF
Add Measure		

- $\checkmark$  Caotion specifies the series caption;
- ✓ Plot on secondary axis specifies whether or not the secondary axis is used to plot the current series;
- ✓ Ignore empty points specifies whether or not empty points are ignored when plotting the current series;
- ✓ Show point markers specifies whether or not to show point markers for the current series. This option is in effect for the "Line" and "Area" series. Note that point markers are always shown when Master Filtering is enabled for the Chart dashboard item.

#### 7.3.4 Point Label

The Point Label section of a value data item allows you to enable series point labels and manage their settings:

VALUES  Reseller Sales Amount Add Values  Add Value  Category  Add Argument  SERIES  Calendar Year  Add Series  HIDDEN DIMENSIONS  HIDDEN DIMENSIONS  BINDING [Measures].[Reseller Sales Argument]  BINDING [Measures].[Reseller Sales Argument]  CONTENT  Cont	
Reseller Sales Amount   Add Values   Add Values   Arguments   Category   Add Argument   SERIES   Calendar Year   Add Series   HIDDEN DIMENSIONS   OPTIONS  OPTIONS  OPTIONS	n
Add Values   ARGUMENTS   Category   Add Argument   SERIES   Calendar Year   Add Series   HIDDEN DIMENSIONS	
ARGUMENTS     Category      Coloring POINT LABELS   Add Argument     Add Argument   Content   Add Argument     Calendar Year     Add Series     HIDDEN DIMENSIONS     Coloring   Coloring   POINT LABELS   Point Labels   OVERLAPPING MODE     Hide	
Category   Add Argument   SERIES   Calendar Year   Add Series   HIDDEN DIMENSIONS   Hide	
Add Argument   SERIES   Calendar Year   Add Series   HIDDEN DIMENSIONS   Hide	
SERIES Calendar Year Add Series HIDDEN DIMENSIONS Add Series HIDDEN DIMENSIONS Add Series Add Serie	_
Calendar Year   Add Series   HIDDEN DIMENSIONS   Hide	_
Add Series Value OVERLAPPING MODE Hide None	_
HIDDEN DIMENSIONS OVERLAPPING MODE Hide None	
Hide None	
Add Dimension ORIENTATION	
HIDDEN MEASURES Default	
Add Measure Rotate Right	
Rotate Left	
SHOW FOR ZERO VALUES	_
ON OFF	
POSITION	
Outside Inside	

- ✓ Content specifies the type of content displayed within point labels:
  - Argument
  - Series Name
  - Value
- ✓ Overlapping mode specifies the label overlap mode. You can reposition or hide overlapping labels or disable a resolving algorithm:
  - None
  - Hide

- ✓ Orientation specifies the orientation of point labels. You can set default orientation or rotate point labels 90 degrees clockwise or counter clockwise:
  - Default labels are located horizontally
  - Rotate right
  - Rotate left

Bar series has additional settings:

- ✓ Show for zero values specifies whether or not to show labels for points with zero values;
- Position specifies the position of point labels relative to bars. Point labels can be displayed inside or outside bars.

#### 7.3.5 Panes

Panes are visual areas within a diagram that display chart series. The Chart dashboard item can contain any number of panes.

Each pane has its own Y-axis and displays a specific set of series. All panes in a chart share the same X-axis:



To add a pane, click the "Add" Pane button in the Chart's data item section:

		х
	VALUES	
	Reseller Sales Amount	
	Add Values	
	ARGUMENTS	
	Category	
	Add Argument	
Q.	SERIES	
₽5	Calendar Year	
ىر	Add Series	
≓	HIDDEN DIMENSIONS	
<u>.</u>	Add Dimension	
ш	HIDDEN MEASURES	
	Add Measure	
		_

Once a new pane is added, the Web Dashboard creates another Values section – Values (Pane 2):



To remove a pane, click the Remove Pane button  $\frac{1}{2}$  displayed in the added Values section.

#### 7.3.6 Axes X / Y

The Chart dashboard item displays two axes by default: the "X"- axis and the "Y"- axis. The "X"-axis is the axis of arguments and the "Y"- axis is the numerical axis of values.

To access "X"- axis settings, go to the Chart's "Options" menu and open the "Axis X" section. You can configure the following settings:

OPTIONS	×	
COMMON		
AXIS X		
REVERSE		
ON	OFF	
VISIBLE		
ON	OFF	
TITLE		
ON	OFF	1
TITLE TEXT		
Arguments		
ENABLE ZOOMING		
ON	OFF	
LIMIT VISIBLE POINTS		
ON	OFF	
VISIBLE POINTS COUNT		
10		

- ✓ Reverse allows you to reverse an "X" axis. If the "X" axis is reversed, its values are ordered from right to left;
- $\checkmark$  Visible specifies whether the axis is visible;
- ✓ Title specifies the "X" axis's title. Use the "Title Text" field to set the title;
- ✓ Title text;
- ✓ Enable zooming allows you to enable zooming for the "X" axis;
- ✓ Limit visible points allows you to limit the number of visible points. The "Visible Points Count" field allows you to specify the maximum number of visible points.

To access "Y"- axis settings, go to the Chart's "Options" menu and open the "Axis Y" section for a corresponding pane:

	OPTIONS	×
	COMMON	
	AXIS X	
	AXIS Y	
	ALWAYS SHOW ZERO LEV	VEL
	ON	OFF
	REVERSE	
	ON	OFF
	GRID LINES	
	ON	OFF
	VISIBLE	
	ON	OFF
	TITLE	
	ON	OFF
	TITLE TEXT	
	Reseller Sales Amount	
	LOGARITHMIC SCALE	
	ON	OFF
	LOGARITHMIC SCALE BASE	
	Base10	-

- ✓ Always show zero level allows you to indicate whether or not an axis zero value should be displayed;
- ✓ Reverse allows you to reverse an "Y"- axis. If the "Y"- axis is reversed, its values are ordered from right to left;
- ✓ Grid lines allows you to control the visibility of the reference lines used to improve the readability of a chart's visual data;
- $\checkmark$  Visible specifies whether the axis is visible;
- $\checkmark$  Title specifies the "Y"- axis's title. Use the "Title Text" field to set the title;
- ✓ Logarithmic scale allows you to use a log scale to display "Y"- axis. Use the "Logarithmic Scale Base" field to set a log scale base.
### 7.3.7 Orientation

You can rotate the Chart so that the "X"- axis becomes vertical, and the "Y"- axis becomes horizontal.

To rotate a Chart, open the Chart's "Options" menu and go to "Common" section. Then, turn the "Rotated" option on:



# 7.3.8 Legend

A legend is an element of a chart that identifies chart series and series points:



To customize legend options, go to the Chart's "Options" menu and open the "Legend" section. The following settings are available:

	OPTIONS	×	
	COMMON		
	AXIS X		
	AXIS Y		
	LEGEND		
- <	SHOW LEGEND		
	YES	NO	
₽	INSIDE DIAGRAM		
무	YES	NO	
5	POSITION		
	Top Right Horizontal	-	
7			
曲			

- $\checkmark$  Show legend allows you to display or not to display a legend;
- ✓ Inside diagram allows you to locate a legend inside or outside the Chart;
- ✓ Position allows to set a legend's position and orientation.

The secondary "Y"- axis is useful when it is necessary to visually combine several charts into one. Secondary axes provide the ability to plot series with different ranges on the same chart.

To plot the required series using the secondary axis, go to the data item "Options" menu for the value measure and turn the "Plot on Secondary Axis" option on:





# 7.4 Pies

One of the dashboard items can be Pies:



## 7.4.1 Binding to Data

Add a Pies item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Pivot to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form that contains the following sections of Pies data:

VALUES	Х
Add Value	
ARGUMENTS	
Add Argument	
SERIES	
Add Series	
HIDDEN DIMENSIONS	
Add Dimension	
HIDDEN MEASURES	
Add Measure	

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:

VALUES	<del>\</del>
Reseller Sales Amount	BINDING [Product].[Category].[Category]
Add Value	
ARGUMENTS	+ Internet Sales Order Details
Category 🗧 🛱	+ Organization
Add Argument	+ Financial
crourc	+ History
SERIES	+ Stocking
Add Series	Category ab
	Large Photo 💦 🔤
HIDDEN DIMENSIONS	Model Name ab
Add Dimension	Product
	Product Line ab
HIDDEN MEASURES	Style
Add Measure	Subcategory ab

Filling in all the fields as in the picture above we will get the following report:

**Reseller Sales Amount** 



### 7.4.2 Layout

The Pie dashboard item allows you to specify the number of columns or rows in which pies are arranged.

To control how cards are arranged, use the "Layout" section in the Pie's "Options" menu:



- $\checkmark$  Auto automatically resizes pies to fit within the dashboard item;
- ✓ Fixed Rows allows you to arrange pies in a specific number of rows:





✓ Fixed Columns – allows you to specify the number of columns in which pies are arranged:



### 7.4.3 Labels

Pies display "data labels" that contain descriptions for pie segments, and provide "tooltips" with additional information:

Reseller Sales Amount



To configure "data labels" and "tooltips", open the Pie's "Options" menu and go to the "Labels" section:

	OPTIONS	×		
	STYLE			
			TOOLTIPS	
	COMMON		None	
	LAYOUT		Argument	
	LABELS		Percent	
	DATA LABELS			
	None		Argument And Percent	t
₽	Argument		Value	
£	Percent		Argument And Value	
5.	Argument And Percent		Value And Percent	
⇒	Value		Argument, Value And	Percent
	Argument And Value			
茴	Value And Percent		DATA LABELS POSITION	
	Argument, Value And Percent		Outside	Inside

## 7.4.4 Style

The Pie dashboard item allows you to select whether diagrams should be painted as pies or donuts:

	OPTIONS	×
	STYLE	
₽	COMMON	
	SHOW CAPTION	
50	ON	OFF
1	CAPTION	
₹	Pies 1	
蛊	SHOW PIE CAPTIONS	
	ON	OFF
	LAYOUT	
	LABELS	

### 7.5 Scatter Chart

One of the dashboard items can be Scatter Chart.



## 7.5.1 Binding to Data

Add a Scatter Chart item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Scatter Chart to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form that contains the following sections of Scatter Chart data:

x-AXIS	C
Set Value	
Y-AXIS	
Set Value	
WEIGHT	
Set Weight	
ARGUMENTS	
Add Argument	
HIDDEN DIMENSIONS	
Add Dimension	
HIDDEN MEASURES	
Add Measure	

The Scatter Chart contains the following fields:

- ✓ X-Axis contains the data item against which the "X"- coordinates of data points are calculated;
- ✓ Y- Axis contains the data item against which the "Y"- coordinates of data points are calculated;
- ✓ Weight contains the data item whose values are used to calculate the weight of data points;
- ✓ Arguments contains data items that provide scatter chart arguments used to create data points.

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:

x-axis X	÷	
Reseller Sales Amount	BINDING [Product].[Category	/].[Category]
Y-AXIS	Q	≣ ≣
Gross Profit Margin	+ History	
WEIGHT	+ Stocking	
	Category	ab
Gross Profit	Large Photo	ab
ARGUMENTS	Model Name	ab
	Product	ab
Category	Product Line	ab
Add Argument	Style	ab
Add Adguiterie	Subcategory	ab
HIDDEN DIMENSIONS	Product Categories	ab
Add Dimension	Product Model Lines	ab
	+ Promotion	
HIDDEN MEASURES	+ Reseller	
Add Measure		



Filling in all the fields as in the picture above we will get the following report:

By default, a scatter chart does not contain the elements coloring. To specify the coloring mode for the specific dimension, open the data item menu and go to "Data Shaping" section. Use the "Coloring" option to specify coloring mode of this data item:

X-AXIS X	<del>~</del>			
Reseller Sales Amount	BINDING [Product].[Category].[Category]			
Y-AXIS	OPTIONS			
Gross Profit Margin				
WEIGHT				
Gross Profit	SORT ORDER			
ARGUMENTS	SORT BY			
Category 📩 💼	(Value) 👻			
Add Argument	GROUP INTERVAL			
HIDDEN DIMENSIONS	None Alphabetical			
Add Dimension	COLORING			
HIDDEN MEASURES	Auto Off On			

As a result, we get the following Scatter Chart view:



### 7.5.2 Legend

A legend is an element of a Scatter Cart that identifies chart points (for instance, colored points corresponding to argument values). To customize legend options, go to the Scatter Chart's "Options" menu and open the "Legend" section.

The following settings are available:

	OPTIONS		Х	
	COMMON			
	AXIS X			
	AXIS Y			
	LABELS			
	LEGEND			
	SHOW LEGEND			
	YES	NO		
	INSIDE DIAGRAM			
<b>P</b>	YES	NO		
ም ም	POSITION			
	Top Right Horizontal		-	
	Top Left Vertical			
₹	Top Left Horizontal			
_	Top Center Horizontal			
	Top Right Vertical			
	Bottom Left Vertical			
	Bottom Left Horizont	al		
	Bottom Center Horizo	ontal		
	Bottom Right Vertical			
	Bottom Right Horizor	ntal		

- $\checkmark$  Show Legend specifies whether or not to show a legend;
- ✓ Inside Diagram locates a legend inside or outside the Scatter Chart;
- ✓ Position sets a legend position and orientation.

#### 7.5.3 Axes

Scatter Chart "X" and "Y"- axes are numerical axis of values. You can specify various axes settings to change visual data presentation.

To access "X" and "Y"- axis settings, go to the Scatter Chart's "Options" menu and open the "Axis X" or "Axis Y" section.

Here you can configure the visibility of axes, their title and grid lines, reverse the axes, etc. For "X"-axis, the following options are available:

	OPTIONS	×
	COMMON	
	AXIS X	
	REVERSE	
	ON	OFF
	GRID LINES	
	ON	OFF
	VISIBLE	
⇔	ON	OFF
ም ም	TITLE	
	ON	OFF
	TITLE TEXT	
≓	Reseller Sales Amount	
命	LOGARITHMIC SCALE	
-	ON	OFF
	LOGARITHMIC SCALE BAS	E
	Base10	-

- ✓ Reverse allows you to reverse the axis. If the axis is reversed, its values are ordered from top to down;
- ✓ Grid lines allows you to hide and show grid lines for the axis;
- ✓ Visible allows you to hide and show the axis;
- ✓ Title allows you to hide and show the axis title. You can choose whether to use the default text or specify a custom string using the Title Text option;
- ✓ Logarithmic scale specifies whether or not the axis should display its numerical values using a logarithmic scale. The combo box next to this option allows you to select the logarithmic base from one of the predefined values.

For "Y"- axis, the following options are available:

	OPTIONS	х		
	COMMON			
	AXIS X			
	AXIS Y			
	ALWAYS SHOW ZERO LEV	/EL		
	ON	OFF		
	REVERSE			
	ON	OFF		
	GRID LINES			
	ON	OFF		
	VISIBLE			
	ON	OFF		
	TITLE			
	ON	OFF		
	TITLE TEXT			
	Reseller Sales Amount			
	LOGARITHMIC SCALE			
	ON	OFF		
	LOGARITHMIC SCALE BAS	SE		
	Base10	~		

- ✓ Always show zero level specifies whether or not the axis' zero level is visible. If this option is unchecked, the visible axis range is defined based on the values plotted in the chart. Note that the "Axis X" section does not contain the "Always show zero level" option.
- ✓ Reverse allows you to reverse the axis. If the axis is reversed, its values are ordered from top to down;
- $\checkmark$  Grid lines allows you to hide and show grid lines for the axis;
- $\checkmark$  Visible allows you to hide and show the axis;
- ✓ Title allows you to hide and show the axis title. You can choose whether to use the default text or specify a custom string using the Title Text option;
- ✓ Logarithmic scale specifies whether or not the axis should display its numerical values using a logarithmic scale. The combo box next to this option allows you to select the logarithmic base from one of the predefined values.

### 7.5.4 Orientation

You can rotate the Scatter Chart so that the "X"- axis becomes vertical, and the "Y"- axis becomes horizontal.

To rotate a Scatter Chart, open the Scatter Chart's "Options" menu and go to "Common" section. Then, turn the "Rotated" option on:

	OPTIONS	×	
	COMMON		
	SHOW CAPTION		
	ON	OFF	
	CAPTION		
	Scatter Chart 1		
	ROTATED		
	ON	OFF	
<u>ب</u> بر			
<b>父</b>	AXIS X		
	AXIS Y		
=	LABELS		
	LEGEND		
ш			

#### 7.5.5 Labels

The Scatter Chart can display "point labels" that contain descriptions for data points, and provide "tooltips" with additional information



To manage the visibility of point labels, open the Scatter Chart's "Options" menu and go to the "Labels" section. Then, turn the" Show Point Labels" option on.

Here you can specify the type of content displayed within point labels, configure label overlap mode and set the orientation of point labels.

The following options are available:

	OPTIONS	×	2
	COMMON		
	AXIS X		
	AXIS Y		
	LABELS	ON	ı
	SHOW POINT LABELS		
	YES	NO	
	CONTENT		
	Argument		
₽	Weight		
25	Values		
\$	Argument and Weight	t	
4	Argument and Values		
<u> </u>	OVERLAPPING MODE		
Ē	Hide	None	
	ORIENTATION		
	Default		
	Rotate Right		
	Rotate Left		
	POSITION		
	Outside	Inside	

- ✓ Show Point Labels specifies whether or not to show point labels for the current series;
- Content specifies the type of content displayed within point labels. You can select "Value", "Argument", "Weight", "Argument and Weight" or "Argument and Value" options;
- ✓ Overlapping Mode specifies the label overlap mode. You can hide overlapping labels or disable a resolving algorithm;
- ✓ Orientation specifies the orientation of point labels. You can set a default orientation or rotate point labels 90 degrees clockwise or counter clockwise;
- ✓ Position specifies the position of point labels relative to bars. Point labels can be displayed inside or outside bars.

# 7.6 Treemap

One of the dashboard items can be Treemap:

Treemap 1							
August		September		December		February	
Warehouse	Value Added Reseller	Warehouse W		Warehouse		Value Added Reseller	
November	Specialty Bike Shop	Value Added Reself	er Sp	Value Added Rese	ller S	Warehouse	Sp
Warehouse	Value Added Reseller	June Warehouse	/alue Added Re	July Warebouse	Value Add	October Warebouse	
	Specialty Bike Shop					Value Added	Reseller
May							
Value Added Resel	er Warehouse	March Value Added R V	Varehouse	April Warehouse	Value Added	January Value Add	Warehouse
	Specialty Bike Shop	S	pecialty Bike Sh.				

## 7.6.1 Binding to Data

Add a Treemap item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Pivot to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form that contains the following sections of Treemap data:

VALUES	×
Add Value	
ARGUMENTS	
Add Argument	
HIDDEN DIMENSIONS	
Add Dimension	
HIDDEN MEASURES	
Add Measure	

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:

VALUES	<del>~</del>
Reseller Sales Amount	BINDING [Date].[Month of Year].[Month
Add Value	
ARGUMENTS	+ Account
Month of Year	+ Customer - Date
Add Argument	+ Calendar
	+ Fiscal
	Date 🖸
Add Dimension	Day Name 12
	Day of Month 12
HIDDEN MEASURES	Day of Week 12
Add Measure	Day of Year 12
	Month of Year 📃 🔢
	+ Delivery Date



#### Filling in all the fields as in the picture above we will get the following report:

#### 7.6.2 Layout

You can to change a layout algorithm used to arrange Treemap tiles. To do this, go to the Treemap's "Options" menu and open the "Layout" section.

	OPTIONS	×
	COMMON	
	LAYOUT	
	LAYOUT ALGORITHM	
	Slice and Dice	
₽	Squarified	
<b>£</b> 5	Striped	
5	LAYOUT DIRECTION	
	Bottom Left - Top Right	
-	Bottom Right - Top Left	
茴	Top Left - Bottom Right	
	Top Right - Bottom Left	

✓ Slice and Dice – the Slice and Dice algorithm divides the space between items, slicing it in the specified direction depending on item value:

Treemap 1											
August	November	May	Septem	Decem	Febru	June	March	July	April	Oct	Ja

✓ Squarified – the Squarified algorithm arranges tiles so that their width/height ratio will be closer to 1:

Treemap 1						
August	May	December	March	July		
November	September	February	April		January	
		June	October			

✓ Striped – the Striped algorithm is a modified version of the Squarified algorithm. The difference here is that tiles are drawn side by side as columns or rows:

Treemap 1				
August	May	December	March	October
November	September	February	July	January
		June	April	

You can also set a layout direction to specify an arrangement of tiles depending on their sizes. The Treemap arranges tiles in descending order from maximum to minimum values. To do this, select the required direction in the "Layout Direction" list:

- ✓ Bottom Left to Right arranges tiles from the bottom-left to the top-right corner;
- ✓ Bottom Right to Left arranges tiles from the bottom-right to the top-left corner;
- ✓ Top Left to Right arranges tiles from the top-left to the bottom-right corner;
- $\checkmark$  Top Right to Left arranges tiles from the top-right to the bottom-left corner.

### 7.6.3 Grouping

If you use several arguments in the Treemap, you can group tiles corresponding to child values by parent values.

Add to your existing Treemap the "Business Type" dimension:

VALUES	Х
Reseller Sales Amount	
Add Value	
ARGUMENTS	
Month of Year	
Business Type	
Add Argument	

Treemap 1							
August - Warehouse	November - Value	February - Value Ac	dd July - Warehouse	June - Warehouse			
September - Wareho	December - Ware	December - Valu	February - W April - Y	Nare October			
May - Value Added R	May - Warehouse	June - Value Add	March - Ware Octobe	r - V April - Value			
November - Wareho	August - Value Ad	September - Val	July - Value January -	May Febru Septe Dece			
		March - Value Aci	January - Va August - Novemb	Marc. A J			

As a result, we get the following Treemap view:

#### We group the tiles by months:



Treemap 1								
August		September	September			February		
Warehouse Value Added Reseller		Warehouse N		Warehouse		Value Added Reseller		
	Specialty Bike Shop	Value Added Re	seller Sp	Value Added Rese	slier S	Warehouse 5	Sp	
November								
Warehouse	Value Added Reseller	June Warehouse	Value Added Re.	July Warehouse	Value Add.	October Warehouse		
	Specialty Bike Shop					Value Added Reseller		
May	-			A				
Valle Added Reseller	warehouse	Value Added R.	Warehouse	Warehouse	Value Added	January Value Add Wareho	use	
	Specialty Bike Shop		Specialty Bike Sh.					

# As a result, the Treemap hierarchy "Business Type" will be grouped by month:

## 7.6.4 Coloring

Treemap allows you to color tiles.

Let's paint the "Business Type" dimension in all the months with one principle. In the "Options"/ "Data Shaping" / "Coloring" menu for "Month of Year" and "Business Type", specify the following options:

VALUES	×	$\leftarrow$		
Reseller Sales Amount	:	BINDING [D	ate].[Month of	Year].[Month
Add Value		OPTIONS		
ARGUMENTS		DATA SHAPING		
Month of Year	<b>a</b> <i>&gt;</i>	SORT ORDER		
Business Type		Ascending	Descending	No Sorting
Add Argument		SORT BY		
HIDDEN DIMENSIONS		(Value)		-
Add Dimension		COLORING		
HIDDEN MEASURES		Auto	Off	On
VALUES	×	←		
Reseller Sales Amount	:	BINDING [R	leseller].[Busine	ss Type].[Busi
Add Value		OPTIONS		
ARGUMENTS		DATA SHAPING		
Month of Year		SORT ORDER		
Business Type	<b>a</b>	Ascending	Descending	No Sorting
Add Argument	<	SORT BY		
HIDDEN DIMENSIONS		(Value)		•
Add Dimension		GROUP INTERVA	L	
HIDDEN MEASURES		None	AI	phabetical
Add Measure		COLORING		
		Auto	Off	On
			•	



#### As a result, Treemap will look like this:

### 7.6.5 Labels

The Treemap displays labels that contain descriptions for tiles and groups, and provide tooltips with additional information.



You can specify which information should be displayed within tile and group labels separately. To do this, go to the "Labels" section of the Treemap's "Options" menu:

	OPTIONS	Х
	COMMON	
	LAYOUT	
	LABELS	
	TILE LABEL	
	None	
	Argument	
	Value	
	Argument and Value	
	TILE TOOLTIP	
	None	
	Argument	
	Value	
	Argument and Value	
	GROUP LABEL	
	None	
	Argument	
	Value	
	Argument and Value	
	GROUP TOOLTIP	
	None	
	Argument	
	Value	
	Argument and Value	
# 7.7 Gauges

One of the dashboard items can be Gauges:



Gauges allow you to display the difference between the actual and target values of a particular parameter. This difference is called delta.

# 7.7.1 Binding to Data

Add a Grid item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Pivot to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form that contains the following sections of Gauges data:

GAUGES	Х
Add Gauge	
SERIES	
Add Series	
HIDDEN DIMENSIONS	
Add Dimension	
HIDDEN MEASURES	
Add Measure	

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:



Filling in all the fields as in the picture above we will get the following report:



### 7.7.2 Delta

Gauges allow you to display the difference between the actual and target values of a particular parameter. This difference is called delta.

Delta is shown with a delta indicator (indicating whether the actual value is less than or greater than the target value) and delta values (representing this difference as an absolute value or a variation):



The delta options can be the following:

GAUGES X	÷
Reseller Sales Amount	Reseller Sales Amount
Add Gauge	Reseller Total Product Cost
SERIES	
Category	OPTIONS
Add Series	SCALE OPTIONS
HIDDEN DIMENSIONS	DELTA OPTIONS
Add Dimension	VALUE TYPE
HIDDEN MEASURES	Actual value
Add Measure	Absolute variation
	Percent variation
	Percent of target
	RESULT INDICATION
	Greater is good
	Less is good
	Warning if greater
	Warning if less
	No indication
	THRESHOLD TYPE
	Absolute Percent
	THRESHOLD VALUE
	•

 $\checkmark$  Value type – specifies which values should be displayed as the main delta value:

- Actual value
- Absolute variation
- Percent variation
- Percent of target

- ✓ Result indication specifies the condition for displaying delta indication:
  - Greater is good the 'good' indication is displayed if the actual value exceeds the target value; if the target value exceeds the actual value, the 'bad' indication displays.;
  - Less is good the 'bad' indication displays if the actual value exceeds the target value; if the target value exceeds the actual value, the 'good' indication displays.;
  - Warning if greater a warning displays only if the actual value exceeds the target value.;
  - Warning if less a warning displays only if the target value exceeds the actual value.;
  - No indication Indication does not display..
- ✓ Threshold type specifies the comparison tolerance in percentage values or in absolute values.
- $\checkmark$  Threshold specifies the comparison tolerance value.

#### 7.7.3 Scale

By default, the Gauge dashboard item automatically determines the range of the gauge scales based on the values they display.

You can override this behavior and specify maximum and minimum values on the scale. After you add the data item, open the "Scale Options" section of the data item menu to customize the gauge scale. Then, set the minimum/maximum value mode to "Custom" and specify this value in the corresponding field:

GAUGES	Х	$\leftarrow$		
Reseller Sales Amount	Ē		Reseller Sa	les Amount
Add Gauge			Reseller Total	Product Cost
SERIES				
Category		OPTIC	DNS	
Add Series		SCAL	E OPTIONS	
HIDDEN DIMENSIONS	1	MINI	MUM VALUE	
Add Dimension			Auto	Custom
HIDDEN MEASURES				
Add Measure		MAX	IMUM VALUE	
			Auto	Custom
		700	00000	* *

## 7.7.4 Style

The Gauge dashboard item allows you to select the gauge style. To select the gauge style, use the style icons in the Gauge "Options" menu:

	OPTIONS	Х
	STYLE N K 2	
₽	COMMON	
	SHOW CAPTION	
50	ON	OFF
S.	CAPTION	
₹	Gauges 1	
<b>.</b>	SHOW GAUGE CAPTIONS	5
ш	ON	OFF

#### 7.7.5 Layout

The Gauge dashboard item allows you to specify the number of columns or rows by which gauges are arranged:

	OPTIONS	×
	STYLE () () () () () () () () () () () () ()	
⇔	СОММОН	
뫄	LAYOUT	
e.	CONTENT ARRANGEMENT MODE	
	Auto	
Ŧ	Fixed Rows	
茴	Fixed Columns	
	LINE COUNT	
	3	î.

 $\checkmark$  Auto – automatically resizes gauges to fit within the dashboard item;

✓ Fixed Rows – allows you to arrange gauges in a specific number of rows:



✓ Fixed Columns – allows you to specify the number of columns in which gauges are arranged:



# 7.8 Cards

One of the dashboard items can be Cards:

Treemap 1							
August		September		December		February	
Warehouse	Value Added Reseller	Warehouse		Warehouse		Value Added Re	seller
November	Specialty Bike Shop	Value Added Reselle	r Sp	Value Added Rese	ller S.	Warehouse	Sp
Warehouse	Value Added Reseller						
And an international second second	And a second	June		July		October	
	Speciality Bike Shop	Warehouse V	alue Added Re.	Warehouse	Value Add.	Warehouse Value Addeo	i Reseller
May				1			
Value Added Reselle	r Warehouse	March		April			
		Value Added R W	arehouse	Warehouse	Value Added .	Value Add	Warehouse
	Specialty Bike Shop	S	oecialty Bike Sh.				

# 7.8.1 Binding to Data

Add a Cards item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Pivot to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form that contains the following sections of Cards data:

CARDS	×
Add Card	
SERIES	
Add Series	
SPARKLINE	
Set Argument	
HIDDEN DIMENSIONS	
Add Dimension	
HIDDEN MEASURES	
Add Measure	

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:

CARDS	×	$\leftarrow$	
Reseller Sales Amount v	<del>ش</del>	Reseller Sales Amount	Actual
Add Card		Reseller Total Product Cost	Target
SERIES			
Category		OPTIONS	
Add Series		CARD LAYOUT	
SPARKLINE		DELTA OPTIONS	
Set Argument		SPARKLINE OPTIONS	

Filling in all the fields as in the picture above we will get the following report:

Cards 1			
\$571K	<b>A</b>	\$66.3M	•
	Accessories	Bikes	
	+52.14%		-1.47%
	+196K	-	991K
\$1.78M		\$11.8M	
	Clothing	Components	
	+15.04%	I	+9.59%
	+232K	+1	.03M

Cards visualize the following data:



### 7.8.2 Layout

The Card dashboard item allows you to manage the position and visibility of elements displayed on cards. These elements include actual and target values, a delta indicator and corresponding delta values, a sparkline, etc.

The following layouts are available for cards:

✓ Streched – the "Stretched" layout template arranges card elements so that they occupy an entire card area



✓ Centered – the "Centered" layout template is used to center card elements so that they occupy a specified width/height

Moun Bikes	tain Bi	kes	
\$26.5 +1.42M/	M▲ (+5.66%		
<u></u>	~		~

✓ Compact – the "Compact" layout template is used to arrange card elements so that they occupy the minimum area

Mountain Bikes
\$26.5M ▲
+1.42M / +5.66%

✓ Lightweight – the Lightweight layout template displays the minimum set of elements within a card



The Card dashboard item uses the Stretched layout template that arranges card visual elements in the following way by default:



To change a card's, invoke the Binding menu, click the required data item in the Cards section and go to Cards Layout in the data item's menu. Select the required layout type and click the Edit button (the  $\checkmark$  icon) to change its settings:



The following settings are available:

LAYOUT OPTIONS				
200	:			
MAX WIDTH				
Auto	Custom			
✓ Actual Value				
✓ Title				
✓ Subtitle				
✓ Percent Variation				
✓ Absolute Variation				
✓ Delta Indicator				
✓ Sparkline				
Reset	Apply to all Cards			

- $\checkmark$  Min Width specifies the minimum width of the card content;
- ✓ Max Width allows you to specify the maximum width of the card content. Select the "Auto" option to determine the maximum width automatically or switch to "Custom" and specify the required width manually.

You can show/hide the following values and visual elements within the card:

- ✓ Actual Value a summary value for a measure placed in the "Actual" placeholder;
- ✓ Title displays values of the last (bottommost) dimension placed in the "Series" section;
- ✓ Subtitle displays combined values of all dimensions except the last (bottommost) dimension;
- ✓ Percent Variation a percent difference between the actual and target value;
- $\checkmark$  Absolute Variation an absolute difference between the actual and target value;
- ✓ Delta Indicator indicates whether the actual value is less or greater than the target value;
- $\checkmark$  Sparkline visualizes the variation of actual or target values.

Use the "Apply to All Cards" button to propagate the specified layout settings to all cards corresponding to "Actual-Target" pairs. The "Reset" button resets all setting to their default values.

#### 7.8.3 Delta

Cards allow you to visualize the difference between the actual and target values using special delta values and a delta indicator:



To customize settings that relate to the calculation and display of delta values/elements, invoke the "Binding" menu, click the required data item in the "Cards" section and go to "Delta Options" in the data item's menu.

Then, specify the following settings:

CARDS	×	$\leftarrow$
Reseller Sales Amount	<b>⊡</b>	Reseller Sales Amount
Add Card		Reseller Total Product Cost
SERIES		
Category		OPTIONS
Subcategory		CARD LAYOUT
Add Series		DELTA OPTIONS
SPARKLINE		RESULT INDICATION
Month of Year		Greater is good
HIDDEN DIMENSIONS		Less is good
Add Dimension		Warning if greater
HIDDEN MEASURES		Warning if less
Add Measure		No indication
		THRESHOLD TYPE
		Absolute Percent
		THRESHOLD VALUE
		0

• Greater is good – the "good" indication is displayed if the actual value exceeds the target value; if the target value exceeds the actual value, the 'bad' indication displays



• Less is good – the "bad" indication displays if the actual value exceeds the target value; if the target value exceeds the actual value, the 'good' indication displays



• Warning if greater – a warning displays only if the actual value exceeds the target value



• Warning if less – a warning displays only if the target value exceeds the actual value

\$29.4M 😐
Road Bikes Bikes
-3.84%
-1.17M
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
ılay
\$29.4M
Road Bikes
-3.84%
-1.17M
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

"Threshold type" / "Threshold value" – for instance, you can specify that a specific indication should display when the actual value exceeds the target value by 10% or by \$2K. Use the "Threshold type" combo box to select whether you wish to specify the comparison tolerance in percentage values or absolute values. Then use the "Threshold value" box to specify the comparison tolerance.

### 7.8.4 Sparkline

Sparklines can be used to visualize the variation of actual or target values (for instance, over time):



You need to provide a date-time or numeric dimension (in the Sparkline section) whose data is used as argument values to display a sparkline within the card:

CARDS
Reseller Sales Amount vs Res
Reseller Sales Amount vs Res
Reseller Sales Amount vs Int
Add Card
SERIES
Category
Subcategory
Add Series
Month of Year

The following options are available:

CARDS	×	←
Reseller Sales Amount	<b> </b>	Reseller Sales Amount
Add Card		Reseller Total Product Cost
SERIES		
Category		OPTIONS
Subcategory		CARD LAYOUT
Add Series		DELTA OPTIONS
SPARKLINE		SPARKLINE OPTIONS
Month of Year		VIEW TYPE
HIDDEN DIMENSIONS		~ 🖬 .11 ····
Add Dimension		HIGHLIGHT MIN/MAX POINTS
HIDDEN MEASURES		ON OFF
Add Measure		HIGHLIGHT START/END POINTS
		ON OFF

- ✓ View type defines the sparkline's view type. Sparkline data points can be represented as area, line, bars, or win and loss squares;
- ✓ Highlight min/max points specifies whether to highlight the minimum/maximum points of a sparkline;
- ✓ Highlight start/end points specifies whether to highlight the start/end points of a sparkline.

### 7.8.5 Layout

The Card dashboard item allows you to specify the number of columns or rows in which cards are arranged.

To control how cards are arranged, use the "Layout" section in the Card's "Options" menu:

	OPTIONS	×
	COMMON	
	LAYOUT	
\$	CONTENT ARRANGEMENT MODE	
₽٩	Auto	
	Fixed Rows	
	Fixed Columns	
₹	LINE COUNT	
茴	3	

The following modes are available:

- $\checkmark$  Auto automatically resizes cards to fit within the dashboard item;
- ✓ Fixed Rows allows you to arrange cards in a specific number of rows:





✓ Fixed Columns – allows you to specify the number of columns in which cards are arranged:

### 7.9 Range Filter

The Range Filter dashboard item allows you to apply filtering to other dashboard items. This item displays a chart with selection thumbs that allow you to filter out values displayed along the argument axis:



# 7.9.1 Binding to Data

Add a Range Filter item by dragging the corresponding button from the Toolbox into the dashboard surface:





Now you need to bind the Range Filter to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form that contains the following sections of Range Filter data:

VALUES	×	
Add Value		
ARGUMENT		
Set Argument		
SERIES		
Add Series		
HIDDEN DIMENSIONS		
Add Dimension		
HIDDEN MEASURES		
Add Measure		

To populate a dashboard item with data, click a placeholder and choose the required field in the invoked list of data source's available fields:



Filling in all the fields as in the picture above we will get the following report:



#### 7.9.2 Series

The Range Filter dashboard item supports various Line, Area and Bar series types.

To switch between series types, click the data item located in the Values section and select the required type from the Type section of the data item menu. To show all available types, click the ellipsis button:

VALUES	Х	÷		
SalesAmount (Sum)	ā	ТҮРЕ		
Add Value		~ ~ ~		
ARGUMENT		BINDING	SalesAmount	
FullDate (Month-Year)		0		
SERIES		+ DimDate	= -	
Country		+ DimGeography		
Add Series	Add Carina		+ DimProduct	

The Range Filter supports the following series types:

- ✓ Line
- ✓ Stacked Line
- ✓ Full-Stacked Line
- ✓ Area
- ✓ Stacked Area
- ✓ Full-Stacked Area
- ✓ Bar
- ✓ Stacked Bar
- ✓ Full-Stacked Bar

The Range Filter supports the "Ignore Master Filters" and "Cross Data Source Filtering" options:



The principle of operation is described in paragraph. 7.14

### 7.9.3 Custom periods

The Range Filter dashboard item allows you to add custom periods.

To add custom periods, open the Range Filter's "Options" menu and go to the "Custom Periods" section. Click "+" to add a new period:



The following options are available:

	÷	Cu	stom Period 1
	COMMON		
	CAPTION		
	Custom Period	1	
	START MODE		
₽	None	Fixed	Flow
	START DATE		
	2/1/2019		⊗ 🖬
1	END MODE		
₹	None	Fixed	Flow
命	END INTERVAL A	ND OFFSET	
	Month	<b>.</b>	4
	Octobe	er 2018 - Janua	ry 2019
		Set as Default	

- $\checkmark$  Caption specifies a custom period caption;
- $\checkmark$  Start mode specifies a mode of the start boundary;
- ✓ End mode specifies a mode of the end boundary.

For start and end modes, you can specify the following options:

- None the selection will begin from the start/end of the visible range;
- Fixed allows you to select a specific date value using the calendar. Use the "Start" / "End Date" option to set a value;
- Flow allows you to select a relative date value. The "Interval option specifies the interval between the current date and the required date. The Offset option allows you to set the number of such intervals.



To select a custom period, click the "Select Date Time Period" button (the 1 icon) in the Range Filter's caption and select the required period from the list:



## 7.10 Filter Elements

Filter elements represent a special type of dashboard item that allows you to apply filtering to other dashboard items.

You can create three types of filter elements. To add the required filter element to the dashboard, use corresponding buttons into the "Filter" section of the Toolbox:



✓ Combox Box – the "Combo Box" dashboard item allows you to select a value(s) from the drop-down list

(AII) CY 2005 CY 2006 CY 2007	(AII)	Ŧ
CY 2005 CY 2006 CY 2007	(AII)	1
CY 2006	CY 2005	Į.
CV 2007	CY 2006	
CY 2007	CY 2007	

This filter has the following options: ÷ Х Combo Box 1 OPTIONS (All) ÷ SHOW CAPTION (All) ON OFF CY 2005 CY 2006 CAPTION CY 2007 Combo Box 1 CY 2008 ₽ TYPE £ Standard Checked SHOW 'ALL' VALUE رحر ON OFF ₹ ENABLE SEARCH OFF ON

- Show caption allows you to display the caption of an item;
- Caption
- Type
  - Standart the "Standard" type allows you to select only a single value

(AII)		-
(All)		
CY 2005		
CY 2006		
CY 2007		
CY 2008		

Checked – the "Checked" type allows you to select multiple values in the invoked drop-down list

Combo Box 1
CY 2006 ¥ CY 2007 ¥
(All)
CY 2005
✓ CY 2006
✓ CY 2007
CY 2008

- Show 'All' value by default, the Combo Box's dropdown contains an "All" item that allows you to select/deselect all items in the Combo Box. To hide this item, turn off the Show "All Value" option in the Combo Box's "Options" menu;
- Enable search enable the search capability in a filter element.
- ✓ List Box the "List Box" dashboard item allows you to select a value(s) from the list

List Box 1	
✓ (AII)	
✓ CY 2005	
CY 2006	
CY 2007	
CY 2008	

This filter has the following options:

IOW CAPTION ON OFF PTION ist Box 1 PE Checked Radio OW 'ALL' VALUE ON OFF ABLE SEARCH ON OFF	1	TIONS	2	×	
ON OFF     Checked Radio     Checked Radio     Checked Radio     Checked Radio     ON OFF     ON OFF	SH	IOW CAPTION			
APTION List Box 1 YPE Checked Radio Checked Radio		ON	OFF		
List Box 1 YPE Checked Radio HOW 'ALL' VALUE ON OFF NABLE SEARCH ON OFF	CA	PTION			
Checked Radio   ON OFF	Li	ist Box 1			
Checked Radio   HOW 'ALL' VALUE   ON   OFF   NABLE SEARCH   ON   OFF	ТҮРЕ				
NABLE SEARCH ON OFF		Checked	Radio		
ON OFF	SH	IOW 'ALL' VALUE			
NABLE SEARCH CON OFF		ON	OFF	- í	
ON OFF	EN	IABLE SEARCH		+	
		ON	OFF	1	

- Show caption allows you to display the caption of an item;
- Caption
- Type
  - Checked the "Checked" type allows you to select multiple values in the list box

List Box 1	
(All)	
CY 2005	
✓ CY 2006	
✓ CY 2007	
CY 2008	

Radio – the "Radio" type allows you to select only a single value in the radio group



- Show 'All' value by default, the Combo Box's dropdown contains an "All" item that allows you to select/deselect all items in the Combo Box. To hide this item, turn off the Show "All Value" option in the Combo Box's "Options" menu;
- Enable search enable the search capability in a filter element.
- ✓ Tree View the "Tree View" dashboard item displays values in a hierarchical way and allows you to expand/collapse nodes

Tree View 1
✓ (All)
CY 2005
CY 2006
▼ ✓ CY 2007
✓ January
✓ February
✓ March
✓ April
✓ May
✓ June
✓ July
✓ August
✓ September
✓ October
✓ November
✓ December
► ✓ CY 2008
This filter has the following options:

OPTIONS	×
SHOW CAPTION	
ON	OFF
CAPTION	
Tree View 1	
AUTO EXPAND	
ON	OFF
ENABLE SEARCH	
ON	OFF

- Show caption allows you to display the caption of an item;
- Caption
- Auto expand the ability to manage the initial expanded state of filter values;
- Enable search enable the search capability in a filter element.

# 7.11 Images

One of the dashboard items can be Images:



The Web Dashboard Designer allows you to create two types of Image dashboard items:

- ✓ Images
- ✓ Bound Images

## 7.11.1 Images

The Image dashboard item allows you to add a static image to the dashboard. To create a required Image dashboard item, use the "Image" button in the Toolbox:



To provide an image to the Image dashboard item, open the Image's "Options" menu and specify the image url or specify the folder path:

OPTIONS			×	C
SHOW CAPTION				
ON			OFF	
CAPTION				
London				
SIZE MODE				
Clip				
Stretch				
Zoom				
Squeeze				
HORIZONTAL AL	IGNMEN	п		
Left	Cer	nter	Right	
VERTICAL ALIGN	MENT			
Тор	Cer	nter	Bottom	
IMAGE				
Linked		E	mbedded	
Image				
			- Contract	

The selected image will then appear:



### 7.11.2 Bound Images

The Bound Image dashboard item can be bound to a set of images (for instance, stored in the database).

To create a required Image dashboard item, use the "Bound Image" button in the Toolbox:





Now you need to bind the Bound Images to the data by clicking on button «Click here» or selecting the menu item «Binding»:

The result is a form with the attribute:

ATTRIBUTE	×
Set Attribute	
HIDDEN DIMENSIONS	
Add Dimension	
HIDDEN MEASURES	
Add Measure	

You can specify the binding mode for the Bound Image. Go to the Bound Image's "Options" menu and specify the "Binding Mode". The following options are available.:

	OPTIONS	×	
	SHOW CAPTION		
	ON	OFF	
	CAPTION		
	Bound Image 1		
	BINDING MODE		
	Binary Array	Uri	
<b>P</b>	URI PATTERN		
25	http://www.example.c	om/{0}.jpg	
ç.	SIZE MODE		
<b>→</b>	Clip		
_	Stretch		
Ō	Zoom		
	Squeeze		

- $\checkmark$  Binary Array Use this mode if images are stored in the data source as byte arrays.
- ✓ URI Use this mode to locate images accessible by a predefined URI. In this case, the data source field should return strings that are parts of URIs to these images. For instance, the URI pattern in the form below specifies the path to the folder containing the required images.

The URI in the following form specifies the path to the folder containing the required images:

OPTIONS	X	
SHOW CAPTION		
ON	OFF	
CAPTION		
Bound Image 1		
BINDING MODE		
Binary Array	Uri	
URI PATTERN		
http://win16:8001/country/{0}.png		

Data source field values will be inserted to the position of the  $\{0\}$  placeholder. Thus, the Bound Image maps the current dimension value with the image placed at the specified URI.

Bound Image 1	Grid 1	
	Country	Reseller Order Count
	Australia	$ \frown \frown$
	Canada	$\sim\sim\sim\sim$
	France	$\sim\sim\sim\sim$
	Germany	
	United Kingdom	$\frown \frown \frown \frown \frown$
	United States	$\frown \frown \frown \frown \frown \frown$

### 7.11.3 Image settings

The following options are available:

	OPTIONS				×
	SHOW CAPTION				
	ON			OFF	
	CAPTION				
	Bound Image 1				
	BINDING MODE				
	Binary Arra	ау		Uri	
~	URI PATTERN				
¥	http://win16:80	)01/cou	ntry/{0}	.png	
ð	SIZE MODE				
2	Clip				
<b>-</b>	Stretch				
<b>.</b>	Zoom				
Ш	Squeeze				
	HORIZONTAL ALI	GNMEN	п		
	Left	Cer	nter	Right	
	VERTICAL ALIGN	MENT			
	Тор	Cer	nter	Botton	n

- ✓ Size mode the ability to specify the image size mode that defines how the image fits within the dashboard item
  - Clip the image is clipped if it is larger than the Image dashboard item;
  - Stretch the image within the Image dashboard item is stretched or shrunk to fit the size of the Image dashboard item;
  - Squeeze If the dimensions of the Image dashboard item exceed those of the image it contains, the image is shown full-size. Otherwise, the image is resized to fit the dimensions of the Image dashboard item;
  - Zoom The image is sized proportionally without clipping, so that it best fits the Image dashboard item. The closest fitting side of the image (either the height or the width) will be sized to fit the dashboard item, and the remaining side (height or width) will be sized proportionally, leaving empty space;
- ✓ Horizontal Alignment / Vertical Alignment the ability to specify the way to align the image in the dashboard.

## 7.12 Text Box

One of the dashboard items can be Text Box. The Text Box dashboard item is used to display rich text within a dashboard.

### 7.12.1 Binding to Data

Add a Text Box item by dragging the corresponding button from the Toolbox into the dashboard surface:



You can provide text by uploading file in the RTF format.

To do this, go to the Text Box's "Options" menu and click the ellipsis button in the "Text" field.

	OPTIONS	×
	SHOW CAPTION	
	ON	OFF
	CAPTION	
	Text Box 2	
ပ္	TEXT	
5	(none)	
ç.		
<b>→</b>		
-		
۵		

After downloading the RTF file you will see the following report:

Text Box 1

SuperLCD 70

Production Start: 6/1/2012

Consumer Rating: 4 of 5 Retail Price: \$4K Best Sales Year: 2014 Best Sales Company: ACME

The 70" DevAV SuperLCD TV is changing the way people watch TV. It's amazing build quality and high precision design means you get the best possible picture for the best possible price. It delivers crystal-clear images with mind-blowing video. The bottom-line is simple, this TV offers 1080p Full HD output with 120Hz refresh rate. A thin frame design with super thin profile makes mouthing this TV a breeze. This super-smart remote includes a built-in keypad for straightforward channel surfi ng. The remote is also backlit so you can easily change channels in the dark. The 70" DevAV SuperLCD TV also includes six video input options so you can display any video signal with ease.

## 7.13 Group

One of the dashboard items can be Group. You can combine dashboard items into a group

### 7.13.1 Binding to Data

Add a Group item by dragging the corresponding button from the Toolbox into the dashboard surface:



Then you need to add the necessary items and drag them to the Group:

Group 1	
Years	Sales by Month
<ul> <li>(All)</li> <li>CY 2005</li> <li>CY 2006</li> <li>CY 2007</li> <li>CY 2008</li> </ul>	Accessories Bikes Clothing Components
	January February March April June June September October November

### 7.14 Master Filtering

The Dashboard allows you to use any data aware dashboard item as a filter for other dashboard items. This feature is called "Master Filtering". You can select elements in a "Master Filter" item (grid records, chart bars, pie segments, etc.) to filter data in other dashboard items by the selected values.

### 7.14.1 Master Filter Modes

To enable master filtering, go to the dashboard item's "Interactivity" menu and use the "Master Filtering Mode" option.



The "Master Filter" item supports the following modes:

- ✓ None disables master filtering;
- ✓ Single allows you to select only one element in the "Master Filter" item. When this mode is enabled, the default selection will be set to a "Master Filter" element. You can change this selection, but cannot clear it;
- ✓ Multiple allows you to select multiple elements in the "Master Filter" item.

To reset filtering, use the "Clear Master Filter" button (the  $\mathbf{T}_{\mathbf{k}}$  icon) in the dashboard item's caption:



### 7.14.2 Filtering Across Data Sources

When different items in a dashboard are bound to different data sources, you can specify that a particular Master Filter should be applied across data sources.:

INTERACTIVITY			×
MASTER FILTER	MODE		
None	Sin	gle	Multiple
DRILL DOWN			
ON	OFF		
IGNORE MASTER FILTERS			
ON	OFF		
CROSS-DATA-SOURCE FILTERING			
ON			OFF

This means that it will apply filtering to fields with matching names in all data sources.

### 7.14.3 Ignore Master Filters

You can prevent specific dashboard items from being affected by "Master Filters". To do this, enable the "Ignore Master Filters" option in the dashboard item's Interactivity menu:

INTERACTIVITY			×
MASTER FILTER	MODE		
None	Single M		Multiple
DRILL DOWN			
ON	OFF		
IGNORE MASTER FILTERS			
ON		OFF	
CROSS-DATA-SOURCE FILTERING			
ON			OFF

### 7.15 Drill Down

Dashboard provides the Drill-Down feature, which allows you to change the detail level of data displayed in a dashboard item. Drill-Down enables users to drill down to display detail data, or drill up to view more general information.

Drill-down requires that the data section contains several dimensions... (consider the example of a pie):

VALUES	Х
Reseller Sales Amount	
Add Value	
ARGUMENTS	
Calendar Year	
Month of Year	
Add Argument	
SERIES	
Add Series	

To be able to change the detail level of data, go to the dashboard item's "Interactivity" menu and enable the "Drill Down" option:

INTERACTIVITY							
MASTER FILTER	MASTER FILTER MODE						
None	Sin	gle	Multiple				
DRILL DOWN							
ON	OFF						
TARGET DIMENS	IONS						
Arguments	Ser	ries	Points				
IGNORE MASTER	R FILTERS	5					
ON OFF							
CROSS-DATA-SOURCE FILTERING							
ON			OFF				

Pie will look like this:





Clicking on the relevant sector of the pie we will get its detailed by months:

To return to the previous view, click on the icon  $\bigcirc$ .

# 7.16 Formatting

Web Dashboard Designer allows you to format dashboard item elements:

Sales by Category						
	Acce	ssories	Bi	Bikes		
	Order Count	Sales Amount	Order Count Sales Amount			
January	1.57K	\$78.5K	1.39K	\$5.6M		
February 🔶 🚖	1.62K	\$83.9K	1.62K	\$8.74M		
March	1.67K	\$86.7K	1.64K	\$7.69M		
April	1.72K	\$102K	1.64K	\$ <mark>6.79</mark> M		
May 🔶 🔶	1.95K	\$131K	2.02K	\$10.1M		
June	1.84K	\$119K	2.01K	\$8.19M		

Grid 1		
Subcategory	Sales Amount	Order Count
Bib-Shorts	\$167K	390
Bike Racks	\$237K	796
Bike Stands	\$39.6K	249
Bottles and Cages	\$64.3K	5.21K
Bottom Brackets	\$51.8K	248
Brakes	\$66K	295
Caps	\$51.2K	3.38K
Chains	\$9.38K	250
Cleaners	\$18.4K	1.33K
Cranksets 🔴	\$204K	261
Derailleurs	\$70.2K	283
Fenders	\$46.6K	2.12K
Forks	\$77.9K	133
Count = 29	Avg = \$172K Sum = \$4.98M	Min = 133 Max = 10K

To create a format rule, select the required measure/dimension by whose values a format condition will be calculated, open the "Conditional Formatting" section of the data item menu and click "+" to add a new format rule:

		$\leftarrow$	
		COMMON	
		CALCULATED BY	
		Values - Sales Amount	•
		APPLY TO	
		Values - Sales Amount	•
	OPTIONS X	CONDITION TYPE	
	СОММОН		
	LAYOUT	Value	•
	INITIAL STATE	Top/Bottom	•
		Average	•
<b>Q</b>	CONDITIONAL FORMATTING	Expression	
₽	+ 2 ↓ ↑	Icon Ranges	•
50	Click + to add a new item.	Range Set	•
		Range Gradient	•
<u> </u>		Bar	
茴		Color Range Bar	•
		Bar Gradient Ranges	•

### 7.16.1 Format Rule: Value

The "Value" format condition allows you to compare static values (such as Greater Than, Less Than, Between, etc.):

←	Format Rule 1: Value
COMMON	
CALCULATED BY	
Values - Sales Am	ount -
APPLY TO	
Values - Sales Am	ount 👻
CONDITION TYPE	
/ Value	
Greater Than	
Greater Than Or	Equal To
Less Than	
Less Than Or Eq	ual To
Equal To	
Not Equal To	
Between	
Not Between	
Between Or Equ	ual To
Not Between Or	r Equal To
CONDITION	
MISCELLANEOUS	

- $\checkmark$  Calculated by the measure to which the condition is calculated;
- ✓ Apply to specify the data item to whose values conditional formatting is applied using the Apply to combo box;
- ✓ Condition type select a condition type from the list;
- ✓ Condition this menu depends on the selected format condition and the type of the dashboard item. Here you can specify settings specific for the selected condition:

← Format Rule 1: Value				
COMMON				
CONDITION				
VALUE				
1000000	÷			
STYLE				
Appearance	Icons			

✓ Miscellaneous – this section contains settings depending on the type of the dashboard item. For example, you can manually specify an intersection level for the Pivot or apply the current rule to a row in the Grid:

$\leftarrow$	Format Rule 1: Value			
COMMON				
CONDITION				
MISCELLANEOUS				
ENABLED				
ON	OFF			
INTERSECTION LEVEL M	ODE			
(Auto)	-			
APPLY TO COLUMN				
ON	OFF			
APPLY TO ROW				
ON	OFF			

• Enabled – condition on / off;

- Intersection level mode the level at which the formatting will be applied:
  - Auto identifies the default level. For the Pivot dashboard item, "Auto" identifies the "First Level";
  - ➢ First level − first level values are used to apply conditional formatting;
  - Last level the last level values are used to apply conditional formatting;
  - All level all pivot data cells are used to apply conditional formatting;
  - Specific level values from the specific level are used to apply conditional formatting.
- Apply to column/row apply to the entire row / to the entire column.

#### 7.16.2 Format Rule: Top N / Bottom N

The Top-Bottom format conditions allow you to highlight a specific number of topmost/bottommost values:

÷		
COMMON		
CALCULATED BY		
Values - Sales Amount	•	
APPLY TO		
Values - Sales Amount	•	
CONDITION TYPE		←
Value	÷	COMMON
Top/Bottom	Þ	CALCULATED BY
Average	Þ	Values - Sales Amount 🔹
Expression		APPLY TO
Icon Ranges	•	Values - Sales Amount 👻
Range Set	•	CONDITION TYPE
Range Gradient	•	/ Top/Bottom
Bar		тор N
Color Range Bar	•	Bottom N
Bar Gradient Ranges	×	

Format Rule 2: Top/Bottom	← Format	Rule 2: Top/Bottom	
соммон	COMMON		
CONDITION	CONDITION		
STYLE	MISCELLANEOUS		
Appearance Icons	ENABLED		
	ON	OFF	
	INTERSECTION LEVEL MO	DE	
B / U Gr R Y G B	(Auto)	•	
COUNT	APPLY TO COLUMN		
5	ON	OFF	
RANK TYPE	APPLY TO ROW		
Number Percent	ON	OFF	

For example, let us select 4 quarters for which the "Sales Amount" measure values were the worst. Select the type of "Bottom N" highlight and fill out the form as follows:

Pivot 1								
	Estigie	Europe North America		inite (	Paofia		Grand Tatal	
	Sales Amount	Gross Profile	Soles Amount	Gross Profit	Sales Amount	Gross Profit	Seles Amount	Grass Profit
* Accession Total	\$326K	\$1696	\$781K	5369K	\$163K	\$95.BK	\$1,27M	\$654K
10Y 01	\$68.2K	\$38.1K	\$143K	\$75K	\$37.96	\$23K	5249K	\$1366
ICV 02	\$91.8K	\$43.76	\$215K	\$1028	\$46K	\$27.4K	\$351K	\$170K
CY Q3	\$85.6K	\$39.8K	\$222K	\$95.7K	\$37.5K	\$21.3K	\$346K	\$157K
CY 04	\$82.38	\$42.6K	\$203K	\$96.4K	\$41.3K	\$24.1%	\$326K	\$163K
- Bikey Total	\$17.258	\$3.16M	\$67.3M	\$3.92M	\$10.254	\$3.444	SHLGM	\$10.5M
CYQ1	\$3.95M	36888	\$15.4M	\$1.29M	\$2.6664	\$943K	\$22M	\$3.T1M
CY 02	\$4.74M	\$1.05M	\$17.5M	\$907K	\$2.89M	\$1.02M	\$25.1M	\$2.96M
CYGS	\$4.12M	\$403K	\$16.7M	\$447K	\$2.08M	\$593K	\$22.9M	\$1.45M
CY OH	\$4.34M	\$810K	\$17.7M	M85.18	\$2.59M	\$877K	\$24.6M	\$2.9IM
+ Clathing Tutal	\$4016	\$56.9K	M0.12	5284K	\$113K	\$27.5%	\$2.12M	\$309K
(C) (Q)	\$71.26	\$11.68	\$260K	\$56.1K	\$24.36	\$7.496	\$350K	\$75.26
10Y 02	\$1000	\$15.56	\$411K	\$79K	\$30.76	\$7.51K	\$544K	\$1026
CV-03	5129K	514.98	\$323K	\$77K	\$30.5K	56K	5682K	\$97.5%
CV Q4	\$102K	\$14.9K	\$407K	\$72.3K	\$27.7K	\$6.52%	\$537K	\$93.7K
+ Compliments Total	\$1.92M	\$138K	59,65M	\$862K	5204K	\$13.76	\$TT.8M	\$1.63M
CY.Q1	\$239%	£18K	\$1,03M	\$107K	\$24.5K	\$1.89K	\$1.29M	\$1276
CY 02	\$445K	\$33.9%	\$2.42M	\$222K	\$54.1K	\$3.0K	MS8.58	\$260K
ICY Q3	\$796K	\$53.76	MEEE2	\$325K	\$83.9K	54.86K	\$4.71M	\$383K
CY Q4	54400	\$32.16	\$2.4M	\$227K	\$41.2K	\$3.35K	M08.52	\$263K
Granal Total	\$19.8M	\$3.52M	\$79.4M	\$5.45M	\$10,7%	\$3.58M	\$110M	\$12.6M

Select a "Bottom N" conditional formatting type and fill out the form as follows:

		← Format	Rule 2: Top/Bottom
		COMMON	
← Format	Rule 2: Top/Bottom	CONDITION	
COMMON		STYLE	
COMMON		Appearance	lcons
CALCULATED BY		<b>+z+2+1</b>	****
Values - Sales Amount	•		
APPLY TO		n hi hi hi hi hi 🛛	
Rows - Calendar Quart	er of Year 🗸		
CONDITION TYPE		••••	
/ Top/Bottom		COUNT	
Top N		4 -2	-
Detter N			3
Bottom N		Number 🦰	Percent
	2		
	← Format	t Rule 2: Top/Bottom	
	COMMON		
	CONDITION		
	MISCELLANEOUS		
	ENABLED		
	ON	OFF	
	INTERSECTION LEVEL MC	DDE	
	Last level	-	

#### We will get the following report:

Rivot 1								
	Tumpe		North Aver	tica	Pacific		Grand Tutal	
	Saley Amount	Grank Profile	Salet Armund	Gross ProFit	Seles Amount	Gross Profit	Sales Amount	Gross Profit
* Accessories Total	\$3284	\$169K	\$7018	\$369K	\$163K	\$95.8K	\$1,27M	\$K34K
CY Q1	\$68.2K	\$38.1K	\$143K	\$756	\$37.9K	\$238	\$249K	\$136K
CY 02	\$91.0K	\$48.7K	\$213K	\$1026	\$46K	\$27.4K	\$351K	\$170K
ICY Q3	\$85,6K	\$39.8K	\$222K	\$95.7%	\$37.5K	\$21.3K	\$346K	\$1578
CY Q4	\$92.3K	\$42,6K	\$203K	\$98.4K	\$41.3K	\$24,1%	\$326K	\$163K
+ filters Total	\$17.2M	\$3.16M	\$67.3M	\$3.92M	\$10.2M	\$3.44M	\$94.6M	\$10.5M
CY Q1	\$3.95M	SBBBK	\$15.4M	\$1.28M	\$2.66M	\$943K	\$22M	\$3.TTM
CY Q2	\$4.74M	\$1.05M	\$17.5M	\$907%	\$2.89M	\$1.0254	\$25.1M	\$2.98M
CYGS	\$4.12M	\$403K	\$16.754	\$447K	\$2.06M	\$595K	\$22.9M	\$1.45M
CY 04	S-L3-IM	\$8186	\$17.7M	\$1.28M	\$2.55M	\$877K	\$24.6M	\$2.98M
• Onthing Tutal	5401K	\$56.5K	ST.MM	\$284K	\$113K	\$27,5K	\$2.12M	\$309K
CY Q1 😑	\$77,28	\$11.6K	\$260K	£56.1K	\$24.3K	\$7.496	\$355K	\$75.28
CY 02	\$1006	\$15.5K	\$413K	\$796	\$30.7%	\$7.516	\$544K	\$1028
CY GS 🔴	\$129K	\$34.98	5523K	\$778;	\$30.5K	SBK	5682K	\$97.9K
CY GL 🔮	\$1026	\$14.9K	\$407K	\$72.3K	\$27.7K	\$6.52K	\$537K	\$93.7K
+ Companients Total	\$1.92M	\$1386	\$9.58M	\$882K	\$204K	\$13.7K	\$11,8M	\$1.03M
CY Q1 😐	\$2356	\$10K	\$1.03M	\$1076	\$24.5K	\$1.09K	\$1,29M	\$127K
CV Q2	\$445K	\$33.94	52.42M	\$2228	\$54.16	\$3.6K	\$2.92M	\$260K
CY Q3	\$7966	\$53.7K	\$3.83M	\$325K	\$83.90	\$4L05K	\$4.71M	\$383K
CY Q4	\$440K	\$32.1K	52.4M	\$227K	\$41.2K	\$3.35K	\$2.88M	\$263K
Grand Tatal	\$19.8M	\$3.52M	\$79.4M	\$5.45M	\$10.7%	\$3.50M	STIOM	\$12.6M

Now let us check those product categories, the profit from which amounted to 90% of the total profit. For this, select the "Top N" conditional formatting type and fill out the form as follows:

←

	COMMON	
	CONDITION	
$\leftarrow$	STYLE	
COMMON	Appearance	lcons
CALCULATED BY	<b>★₹₹4</b>	+245
Values - Sales Amount 👻		
APPLY TO		
Rows - Category	● ✓ ! × ⊘ (	Ø Ø /₩ /₩ Ø
CONDITION TYPE	COUNT	
/ Top/Bottom	90 🔫 2	
Top N	RANK TYPE	
Bottom N	Number	Percent

Format Rule 3: Top/Bottom

$\leftarrow$	Format Rule 3: Top/Bottom				
COMMON					
CONDITION					
MISCELLANEOU	5				
ENABLED					
ON	OFF				
INTERSECTION LEVEL MODE					
(Auto)		•			

## We will get the following Pivot table:

Powert 1								
	Eartpr		North Am	rita	Pacific		Grand Te	60
	Sales Amount	Grous Profile	Sales Amount	Genn Profit	Selec Armunt	Gross Profit	Salis Amount	Grans Profit.
* Accessories Total	\$328K	\$169K	\$781K	\$3696	\$16JK	\$95.0K	\$1.27M	\$634K
CFQI	368.2K	538.1K	\$143K	\$73K	\$37.96	\$Z3K	3249K	\$136K
CV Q2	391.8K	\$48.7K	\$213K	\$102K	\$46K	\$27.4K	£351K	\$178K
CY-Q3	385.6K	\$39.9K	\$222K	\$95.7K	\$37.5K	\$21.3K	\$346K	\$1576
CYIQA	382.3K	542.6K	\$205K	\$96.4K	\$41.3K	\$24.9K	\$326K	\$163K
- Tikes Total 🛛 🚖	\$17.2M	\$3.16M	\$67.3M	\$3.92M	\$10,214	\$3.44M	\$94.6M	\$10.5M
CY Q1	\$3.99M	SBBBK	\$15.4M	\$1.28M	\$2.66M	\$943K	\$22M	SE.TIM
CV Q2	\$4,74M	\$1.05M	\$17.5M	\$907K	\$2.89M	\$1.02M	\$25.1M	\$2.98M
CY Q3	\$4.12M	5403K	\$16.7M	\$447K	\$2,08M	\$595K	\$22.9M	\$1,494
CY.Q4	\$4.34M	\$813K	\$17.7M	\$1,284	\$2.55M	\$877K	\$24.6M	\$2.98M
* Clothing Tatal	5401K	\$36.9K	\$1.6M	\$254K	\$313K	\$27.5K	\$2.12M	\$369K
Cy Q1 🛛 🔴	\$71.2K	\$11.6K	\$260K	\$56.16	\$24.5K	\$7.49K	\$3556	\$75.26
CV 02	\$100K	\$15.5K	\$413K	\$79K	\$30.7K	\$7.51K	5544K	\$102K
CY Q3 🧶	\$129K	514.9K	\$5236	\$77K	\$30.56	56K	\$682K	\$97.96
CY QI	\$102K	\$14.9K	\$407K	\$72.3K	\$27.7K	\$6.52K	3507K	\$93.7K
+ Componenta Total 🔺	\$1.9254	\$138K	\$9.68M	\$882K	\$204K	\$13.7K	\$71.0M	\$1.03M
Cy (st 🧶	\$2354	\$18K	\$1.0IM	\$107K	\$24.5K	\$1.894	\$1.29M	\$1276
CV 02	5440K	\$33.9K	52.42M	\$222K	\$54.1K	\$3.6K	\$2.92M	\$2606
CYRS	\$796K	\$53.7K	\$3.83M	£325K	\$83.9K	54.86K	\$4.71M	\$383K
CYQI	5440K	\$32.1K	\$2.4M	\$227K	\$41.2K	53,356	\$2,89M	\$263K
Grand Total	\$10.8M	\$3.52M	\$79.4M	\$5.45M	\$10.764	\$3.50M	STIOM	\$12.6M

Two product categories - "Bikes" and "Components" - gave 90% out of all profits.

## 7.16.3 Format Rule: Average

The Average format conditions allow you to highlight values above or below an average value.:

← Format Rule 4: Avera	ige
COMMON	
CALCULATED BY	
Values - Sales Amount	•
APPLY TO	
Values - Sales Amount	← Format Rule 4: Average
CONDITION TYPE	
	COMMON
Value	CALCULATED BY
Top/Bottom	Values - Sales Amount
Average	APPLY TO
Expression	Values - Sales Amount 👻
Icon Ranges	CONDITION TYPE
Range Set	• / Average
Range Gradient	Above
Bar	Above or Equal
Color Range Bar	Below
Bar Gradient Ranges	Below or Equal

# 7.16.4 Format Rule: Expression

An Expression format condition allows you to use complex conditions to apply formatting.:

← F	ormat Rule 4: Expression		
COMMON			
CALCULATED BY			
Values - Sales An	nount 👻		
APPLY TO			
Values - Sales An	nount 👻		
CONDITION TYPE		COMMON	
Value	Þ	CONDITION	
Top/Bottom	Þ		
Average	Þ		
Expression	շիտ		
Icon Ranges	•		Edit
Range Set	۱.	STYLE	
Range Gradien	t ⊧	Appearance	Icons
Bar			
Color Range Ba	ar 🕨		
Bar Gradient R	anges 🕨	B I U Gr	R Y G B

Expr	ession						×
And	Sales Amount	ls greater than	1000000	•			
A	dvanced Mode				ОК	Cancel	

This invokes the "Expression" dialog that allows you to specify the required expression:

## 7.16.5 Format Rule: Icon Ranges

Icon Ranges allow you to use predefined or custom sets of icons to apply conditional formatting to different ranges of values:

$\leftarrow$		←
COMMON		COMMON
CALCULATED BY		CALCULATED BY
Values - Sales Amount	•	Values - Sales Amount 🔹
APPLY TO		APPLY TO
Values - Sales Amount	•	Values - Sales Amount 👻
CONDITION TYPE		CONDITION TYPE
		/ Icon Ranges
Value	•	RANGES 2
Top/Bottom	•	+ + • × 0
Average	•	
Expression		
lcon Ranges _പ്രിന	•	
Range Set	•	
Range Gradient	•	
Bar		* * 📀 👻 🖲
Color Range Bar	•	RANGES 4
Bar Gradient Ranges	•	📩 📩 💄 🛔 🕼

For example, let us select the 4-range highlight for the "Gross Profit" measure:

÷		
COMMON		
CALCULATED BY		
Values - Gross Profit		-
APPLY TO		
Values - Gross Profit		-
CONDITION TYPE		
/ Icon Ranges		
$\begin{array}{c c} \bullet & \mathbf{X} & \mathbf{O} \\ \bullet & \cdot & \bullet \\ \bullet & \mathbf{V} & \mathbf{O} \end{array}$	☆☆★	/= /= /=
RANGES 4		
Arrows 4	이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이	

Next, select a range of values:

VALUE TYPE		
Percent		, De
Number		U
Percent		
Automatic	 _	

Below is the range of ranges:

+			
+	100	≥	75
- 🛪 -	75	≥	50
<b>1</b>	50	≥	25
+	25	≥	0

You can add and delete a new range:

+			
4	100	≥	75
- 📕	75	≥	50
<b>1</b>	50	≥	25
+	25	≥	0

And also select the icon and range of values for it:



To delete a range, select the range want and click the icon  $\overline{\mathbf{m}}$ :



Next, you must specify the status of the rule:

ENABLED	
ON	OFF

Then specify the intersection level mode - the level at which the backlight will be applied:

INTERSECTION LEVEL MODE	
(Auto)	-
(Auto)	40
First level	
Last level	
All levels	
Specific level	

The levels can be as follows:

- Auto identifies the default level. For the Pivot dashboard item, "Auto" identifies the "First Level";
- First level the first level values are used to apply conditional formatting;
- Last level the last level values are used to apply conditional formatting;
- All level all pivot data cells are used to apply conditional formatting;
- Specific level values from the specific level are used to apply conditional formatting.

Apply to row/column – apply to the entire row / to the entire column:

APPLY TO COLUMN						
OFF						
APPLY TO ROW						
OFF						

#### Fill in the form with the following data:

COMMON



ENABLED						
ON	OFF					
INTERSECTION LEVEL MODE						
Last level 👻						
APPLY TO COLUMN						
ON	OFF					
APPLY TO ROW						
ON	OFF					

Plyot 1											
	Europii		North America			Pacific			Granut Tattal		
	Sales Amount	Group Pri	/It	Side: Amount		Gross Profit	Sales Amount	.0	iss Profit	Selec Amount	Gross Profit
· Accossen Total	\$3298		\$165K	\$7816		\$369K	\$163K		\$95.8K	\$1,2764	\$634K
CYIQI	\$68.2K	*	\$38.1K	\$1436	-	\$756	\$37.8K	*	\$23K	\$2498	\$136K
CV 02	\$91.8K	*	548.7K	1213K		\$102K	\$46K	5	\$27.4K	\$351K	\$170K
ICY Q3	585.0K	1	\$39.8K	\$222K	-	\$95.7K	537.5K		\$21,3K	\$346K	\$1576
CV Q4	\$82.34	*	\$42.6K	\$203%	*	\$96.40	\$41.3K	*	\$24.1K	\$3266	\$163K
• Biéas Total 🔺	\$17.2M		M01.62	\$67.3M		\$3.92M	\$10.2M		\$3.44M	\$94.6M	\$10.5M
CYQ1	£1,99M	+	SMK	\$15.454	+	\$1,204	\$2.MM	+	\$943K	\$2254	\$3.1154
CV-02	SATIAN	+	\$1.05M	\$17.544	+	\$907K	\$2,2044	+	\$1.02M	\$25.1M	\$2.98M
CY Q3	\$4.12M		\$403K	\$16.04		\$447K	\$2,06M	2	\$595K	\$22.9M	\$1.45M
CY G4	1434M	+	\$818K	\$17.7M	+	\$1.28M	17.55M	+	\$877K	\$24.6M	\$2.98M
· Clothing Total	\$401K	1	\$58.9K	\$1.6M		\$284K	\$113K		\$27.5K	\$2.12M	\$309K
CY 01 0	\$71.28	*	\$11.5K	\$260K	-	\$56.1K	\$34.3K	-	\$7.4IK	\$355K	\$75.2K
CV GZ	\$1008	*	\$15.5K	\$4136	*	\$79K	\$30.7K	*	\$7.51K	\$\$446	\$102K
CV Q3 🛛 🔴	\$129K	*	\$14.9K	19236	-	\$77K	\$30.5K	1	\$5K	\$682K	\$97.9K
CY Qł 🧶	\$102K		\$14.9K	5407K	-	\$72.3K	\$27.7K	1	\$6.52K	\$\$57K	\$93.76
• Components Total 🔺	\$1.92M		\$138K	\$9.66M		\$882K	\$204K		\$13.7K	\$11.8M	\$1.03M
EV Q1	\$2358	*	SIIK	STATINA		\$107K	\$24.5K	+	\$1.89K	\$1,29M	\$1276
CV 02	\$4400	*	\$33.9K	\$2.42M		\$2226	\$54.1K	+	\$3.6K	\$2.92M	\$260K
CYOS	\$7964	*	\$53.7K	STATIA	2	\$329K	\$83.9K	+	\$4,864	\$4.71M	\$383K
10Y (54	\$4400	*	\$32.1K	12.04		\$227K	\$41.2K	+	\$3,356	\$2.00M	\$263K
Grand TalaF	\$19.6M		\$3.52M	\$79.4M		\$5,45M	\$10.7M		\$3.58M	\$11044	\$12.6M

## As a result, the pivot table will look the following:

### 7.16.6 Format Rule: Range Set

Range Set allow you to use predefined sets of colors to apply conditional formatting to different ranges of values. You can also use custom appearance settings for specific ranges:

CONDITION	I TYPE
<u></u> / R	ange Set
RANGES 2	
RANGES 3	
RANGES 4	
	_
RANGES 5	

The working principle is the same as for the "Icon Ranges" rule (abstract 7.16.5):

				ENABLED		
VALUE TYP	E			ON	OFF	
Number -			-	INTERSECTION LEVEL MODE		
+				Last level 👻		
	00	ž	800000	APPLY TO COLUMN		
	800000	≥	100000	ON	OFF	
	100000	≥	5000	APPLY TO ROW		
	5000	≥	0	ON	OFF	

MISCELLANEOUS
Pivot 1									
	Euro	pe		North America		Pacific			
	Sales Amount		Gross Profit	Sales Amount		Gross Profit	Sales Amount		Gross Profit
<ul> <li>Accessories Total</li> </ul>	\$328K		\$169K	\$781K		\$369K	\$163K		\$95.8K
CY Q1	\$68.2K	1	\$38.1K	\$143K	1	\$75K	\$37.9K	1	\$23K
CY Q2	\$91.8K	1	\$48.7K	\$213K		\$102K	\$46K	-	\$27.4K
CY Q3	\$85.6K	1	\$39.8K	\$222K	-	\$95.7K	\$37.5K	-	\$21.3K
CY Q4	\$82.3K	1	\$42.6K	\$203K	-	\$96.4K	\$41.3K	-	\$24.1K
▼ Bikes Total 🛛 🔺	S17.2M		\$3.16M	S67.3M		\$3.92M	S10.2M		\$3.44M
CY Q1	\$3.95M	1	\$888K	\$15.4M	1	\$1.28M	\$2.66M	1	\$943K
CY Q2	\$4.74M	1	\$1.05M	\$17.5M	1	\$907K	\$2.89M	1	\$1.02M
CY Q3	\$4.12M		\$403K	\$16.7M		\$447K	\$2.08M		\$595K
CY Q4	\$4.34M	1	\$818K	\$17.7M	1	\$1.28M	\$2.55M	1	\$877K
▼ Clothing Total	\$401K		\$56.9K	S1.6M		\$284K	\$113K		\$27.5K
CY Q1	\$71.2K	1	\$11.6K	\$260K	-	\$56.1K	\$24.3K	-	\$7.49K
CY Q2	\$100K	1	\$15.5K	\$413K	-	\$79K	\$30.7K	-	\$7.51K
СҮ Q3	\$129K	1	\$14.9K	\$523K	-	\$77K	\$30.5K	-	\$6K
CY Q4	\$102K	1	\$14.9K	\$407K	1	\$72.3K	\$27.7K	-	\$6.52K
- Components Total 🔺	S1.92M		\$138K	S9.68M		\$882K	\$204K		\$13.7K
CY Q1	\$235K	1	\$18K	\$1.03M		\$107K	\$24.5K	÷	\$1.89K
CY Q2	\$446K	1	\$33.9K	\$2.42M	-	\$222K	\$54.1K	Ŧ	\$3.6K
CY Q3	\$796K	1	\$53.7K	\$3.83M		\$325K	\$83.9K	ŧ	\$4.86K
CY Q4	\$440K	1	\$32.1K	\$2.4M		\$227K	\$41.2K	ŧ	\$3.35K

### 7.16.7 Format Rule: Range Gradient

Range Gradient allow you to use predefined color gradients to apply conditional formatting to different ranges of values. You can also use specific colors to generate custom gradients:

CONDITION	TYPE		
<u></u> / Ra	ange Gradie	ent	
2 COLOR G	RADIENT R/	ANGES	
3 COLOR G	RADIENT R/	ANGES	

The Range Gradient rule has the following options:

COMMON		$\leftarrow$	Format Ru	le 1: Ran	ge Gradient
CALCULATED BY		COMMON			
Values - Gross Profit	÷ .				
APPLY TO		CONDITION	4		
Values - Gross Profit	-	VALUE TYPE	E		
CONDITION TYPE		Percent			•
/ Range Gradient		SEGMENT N	NUMBER		
2 COLOR GRADIENT RANG	GES	10			÷
_			100	≥	90
			<del>90</del>	≥	80
			80	≥	70
			70	≥	60
			60	≥	50
			50	≥	40
			40	≥	30
3 COLOR GRADIENT RANG	GES		30	≥	20
			20	≥	10
			10	≥	0
	MISCELLANEOUS				
	ENABLED	05	E		
	UN	UF	F		

LINDLED				
ON	OFF			
INTERSECTION LEVEL MODE				
(Auto)	-			
APPLY TO COLUMN				
ON	OFF			
APPLY TO ROW				
ON OFF				

- $\checkmark$  Calculated by the measure to which the condition is calculated;
- ✓ Apply to specify the data item to whose values conditional formatting is applied using the Apply to combo box;
- ✓ Condition Type type of gradient;

✓ Value Type

VALUE TYPE		
Percent		, Dec
Number		30
Percent		
Automatic		

- ✓ Segment number
- ✓ Enabled condition on / off;
- $\checkmark$  Intersection level mode the level at which the formatting will be applied:
  - Auto identifies the default level. For the Pivot dashboard item, "Auto" identifies the "First Level";
  - First level the first level values are used to apply conditional formatting;
  - Last level the last level values are used to apply conditional formatting;
  - All level all pivot data cells are used to apply conditional formatting;
  - Specific level values from the specific level are used to apply conditional formatting.
- ✓ Apply to column/row apply to the entire row / to the entire column.

		Europ	pe	North An	nerica	Pacific	
		Sales Amount	Gross Profit	Sales Amount	Gross Profit	Sales Amount	Gross Profit
• Te	Accessories otal	\$328K	\$169K	\$781K	\$369K	\$163K	\$95.8K
	CY Q1	\$68.2K	\$38.1K	\$143K	\$75K	\$37.9K	\$23K
	CY Q2	\$91.8K	\$48.7K	\$213K	\$102K	\$46K	\$27.4K
	CY Q3	\$85.6K	\$39.8K	\$222K	\$95.7K	\$37.5K	\$21.3K
	CY Q4	\$82.3K	\$42.6K	\$203K	\$96.4K	\$41.3K	\$24.1K
•	Bikes Total	\$17.2M	\$3.16M	\$67.3M	\$3.92M	\$10.2M	\$3.44M
	CY Q1	\$3.95M	\$888K	\$15.4M	\$1.28M	\$2.66M	\$943K
	CY Q2	\$4.74M	\$1.05M	\$17.5M	\$907K	\$2.89M	\$1.02M
	CY Q3	\$4.12M	\$403K	\$16.7M	\$447K	\$2.08M	\$595K
	CY Q4	\$4.34M	\$818K	\$17.7M	\$1.28M	\$2.55M	\$877K
T	Clothing otal	\$401K	\$56.9K	\$1.6M	\$284K	\$113K	\$27.5K
	CY Q1	\$71.2K	\$11.6K	\$260K	\$56.1K	\$24.3K	\$7.49K
	CY Q2	\$100K	\$15.5K	\$413K	\$79K	\$30.7K	\$7.51K
	CY Q3	\$129K	\$14.9K	\$523K	\$77K	\$30.5K	\$6K
	CY Q4	\$102K	\$14.9K	\$407K	\$72.3K	\$27.7K	\$6.52K
T	Components otal	\$1.92M	\$138K	\$9.68M	\$882K	\$204K	\$13.7K
	CY Q1	\$235K	\$18K	\$1.03M	\$107K	\$24.5K	\$1.89K
	CY Q2	\$446K	\$33.9K	\$2.42M	\$222K	\$54.1K	\$3.6K
	CY Q3	\$796K	\$53.7K	\$3.83M	\$325K	\$83.9K	\$4.86K
	CY Q4	\$440K	\$32.1K	\$2.4M	\$227K	\$41.2K	\$3.35K

# 7.16.8 Format Rule: Bar

The Bar format condition allows you to visualize numeric values using bars. You can also paint bars corresponding to positive and negative values using different colors.

÷	Format Rule 1: Bar
COMMON	
CALCULATED BY	
Values - Reseller Gros	ss Profit 🔹
APPLY TO	
Values - Reseller Gros	ss Profit 🔹
CONDITION TYPE	
Value	•
Top/Bottom	•
Average	•
Expression	
Icon Ranges	۱.
Range Set	۱.
Range Gradient	F
Bar	Ու
Color Range Bar	۰ ،
Bar Gradient Range	s 🕨

$\leftarrow$	Form	nat Rule 1: Bar			
COMMON					
CONDITION					
MINIMUM TYPE					
Auto	Number	%			
MAXIMUM TYPE			$\leftarrow$		Format Rule 1: Bar
Auto	Number	%	COMMON		
STYLE SETTINGS T	YPE				
Positive		Negative	CONDITION		
			MISCELLANEOUS		
			ENABLED		
			ON		OFF
ALLOW NEGATIVE	AXIS		INTERSECTION LI	EVEL MO	DDE
YES		NO	(Auto)		•
DRAW AXIS			APPLY TO COLUN	IN	
YES		NO	ON		OFF
SHOW BAR ONLY			APPLY TO ROW		
VES		NO	ON		OFF

- ✓ Minimum/Maximum type by default, lengths of the shortest and longest bars correspond to minimum and maximum values, respectively. If necessary, you can specify values corresponding to the shortest and longest bars manually. To do this, change the type of minimum/maximum value from "Auto" to "Number" or "Percent", and specify the required values;
- ✓ Style settings type allow you to specify style settings used to color data bars corresponding to positive and negative values, respectively;
- ✓ Allow negative axis the "Allow negative axis" option allows you to specify whether negative data bars are displayed in the direction opposite to the positive data bars;
- ✓ Draw axis the "Draw axis option" specifies whether to draw the vertical axis between positive and negative data bars;
- ✓ Show bar only the "Show bar only option" specifies whether to show bars without corresponding values;
- ✓ Enabled condition on / off;

- $\checkmark$  Intersection level mode the level at which the formatting will be applied:
  - Auto identifies the default level. For the Pivot dashboard item, "Auto" identifies the "First Level";
  - First level the first level values are used to apply conditional formatting;
  - Last level the last level values are used to apply conditional formatting;
  - All level all pivot data cells are used to apply conditional formatting;
  - Specific level values from the specific level are used to apply conditional formatting.

✓ Apply to column/row – apply to the entire row / to the entire column. Let's look at this rule on the example of the "Pivot" table:

Pivot 1				
	Accessories	Bikes	Clothing	Components
CY 2005	\$8.17K	\$269K	-\$1.91K	\$54K
CY 2006	\$28.4K	-\$233K	\$102K	\$426K
CY 2007	\$99.8K	-\$782K	\$99.1K	\$415K
CY 2008	\$59.5K	-\$244K	\$33.1K	\$138K

VALUES	×
Reseller Gross Profit	
Add Value	
COLUMNS	
Category	
Add Column	
ROWS	
Calendar Year	
Add Row	

Let us add a rule for the "Reseller Gross Profit" measure:

←	Forr	nat Rule 1: Bar	←	Forn	nat Rule 1: Bar
COMMON			COMMON		
CONDITION			CONDITION		
MINIMUM TYPE			MINIMUM TYPE		
Auto	Number	%	Auto	Number	%
MAXIMUM TYPE			MAXIMUM TYPE		
Auto	Number	%	Auto	Number	%
STYLE SETTINGS TYP	E		STYLE SETTINGS	ТҮРЕ	
Positive		Negative	Positive		Negative
ALLOW NEGATIVE AX	as		ALLOW NEGATIV	E AXIS	
YES		NO	YES		NO
DRAW AXIS	<u></u>		DRAW AXIS		
YES		NO	YES		NO
SHOW BAR ONLY			SHOW BAR ONLY	ſ	
YES		NO	YES		NO
YES		NO	YES		NO

Format Rule 1: Bar				
OFF				
DDE				
•				
OFF				
OFF				

# As a result, we will get the following table:

	Accessories	Bikes	Clothing	Components
CY 2005	\$8.17K	\$269K	-\$1.91K	\$54K
CY 2006	\$28.4K	-\$233K	\$102K	\$426K
CY 2007	<mark>\$9</mark> 9.8K	-\$782K	\$99.1K	\$415K
CY 2008	\$59.5K	-\$244K	\$33.1K	\$138K

## 7.16.9 Format Rule: Bar Color Range

"Bar Color Ranges" allow you to visualize numeric values using bars whose colors are contained in the specified color set:

CONDITION TYPE	
Value	×
Top/Bottom	÷
Average	×
Expression	
Icon Ranges	•
Range Set	•
Range Gradient	×
Bar	
Color Range Bar ျက	÷
Bar Gradient Ranges	×

The Color Range Bar rule has the following options:

← Format Rule 2: Color Range Bar	←	Format Rule	2: Col	or Range Bar	
соммон	COMMON				
CALCULATED BY	CONDITION				
Values - Reseller Gross Profit 🔹	VALUE TYPE				
APPLY TO Percent			-		
Values - Reseller Gross Profit 🔹	eller Gross Profit 🔹				
CONDITION TYPE	+				
/ Color Range Bar		100	≥	80	
RANGES 2		80	≥	60	
		60	٤	40	
RANGES 3		40	≥	20	
		20	≥	0	
RANGES 4	ALLOW NE	GATIVE AXIS			
	,	YES		NO	
RANGES 5 DRAW AXIS					
		/ES		NO	
	SHOW BAR ONLY				
		YES		NO	

Format Rule 2: Color Range Bar						
COMMON						
CONDITION						
MISCELLANEOUS						
ENABLED						
ON	ON OFF					
INTERSECTION LEVEL MO	DDE					
(Auto) 👻						
APPLY TO COLUMN						
ON	OFF					
APPLY TO ROW						
ON OFF						

✓ Value Type

VALUE TYPE		
Percent		- Dec
Number		J
Percent		
Automatic	 _	

- $\checkmark$  Segment number allow you to customize predefined range colors and values;
- ✓ Allow negative axis the "Allow negative axis" option allows you to specify whether negative data bars are displayed in the direction opposite to the positive data bars;
- ✓ Draw axis the "Draw axis option" specifies whether to draw the vertical axis between positive and negative data bars;
- ✓ Show bar only the "Show bar only option" specifies whether to show bars without corresponding values;
- ✓ Enabled condition on / off;
- $\checkmark$  Intersection level mode the level at which the formatting will be applied:
  - Auto identifies the default level. For the Pivot dashboard item, "Auto" identifies the "First Level";
  - First level the first level values are used to apply conditional formatting;
  - Last level the last level values are used to apply conditional formatting;
  - All level all pivot data cells are used to apply conditional formatting;
  - Specific level values from the specific level are used to apply conditional formatting.
- ✓ Apply to column/row apply to the entire row / to the entire column.

# 7.16.10 Format Rule: Gradient Ranges

The Bar Gradient Ranges allow you to visualize numeric values using bars whose colors are contained in the specified color gradient:

CONDITION TYPE		
Value		+
Top/Bottom		•
Average		•
Expression		
Icon Ranges		•
Range Set		•
Range Gradient		•
Bar		
Color Range Bar		•
Bar Gradient Ranges	ĥæ	•
	0	

The Bar Gradient Ranges rule has the following options:

COMMON	COMMON				
CALCULATED BY	CONDITION	CONDITION			
Values - Reseller Gross Profit	VALUE TYPE				
APPLY TO	Percent	•			
Values - Reseller Gross Profit	SEGMENT NUMBER				
CONDITION TYPE	5	÷			
… / Bar Gradient Ranges 100 ≥ 80					
2 COLOR GRADIENT RANGES	80 ≥ 60				
	60 ≥ 40				
	40 ≥ 20				
	20 ≥ 0				
	ALLOW NEGATIVE AXIS				
	YES NO				
	DRAW AXIS				
	YES NO				
3 COLOR GRADIENT RANGES	SHOW BAR ONLY				
	YES NO				

Format Rule 3: Gradient Range Bar

COMMON					
CONDITION					
MISCELLANEOUS					
ENABLED					
ON OFF					
INTERSECTION LEVEL MODE					
(Auto) 🗸					
APPLY TO COLUMN					
ON	OFF				
APPLY TO ROW					
ON OFF					

✓ Value Type

VALUE TYPE			
Percent			Da
Number			J
Percent			
Automatic		_	

- $\checkmark$  Segment number allow you to customize predefined range colors and values;
- ✓ Allow negative axis the "Allow negative axis" option allows you to specify whether negative data bars are displayed in the direction opposite to the positive data bars;
- ✓ Draw axis the "Draw axis option" specifies whether to draw the vertical axis between positive and negative data bars;
- ✓ Show bar only the "Show bar only option" specifies whether to show bars without corresponding values;
- ✓ Enabled condition on / off;
- $\checkmark$  Intersection level mode the level at which the formatting will be applied:
  - Auto identifies the default level. For the Pivot dashboard item, "Auto" identifies the "First Level";
  - First level the first level values are used to apply conditional formatting;
  - Last level the last level values are used to apply conditional formatting;
  - All level all pivot data cells are used to apply conditional formatting;
  - Specific level values from the specific level are used to apply conditional formatting.
- ✓ Apply to column/row apply to the entire row / to the entire column

# 7.17 Filtering

The Web Dashboard allows you to apply filtering for individual dashboard items.

To configure filtering in the Web Dashboard, select the target dashboard item and invoke the dashboard item's "Bindings" menu. Then, go to the "Data / Filtering" section:

VALUES	Х
Reseller Gross Profit	
Add Value	
COLUMNS	
Category	
Add Column	
ROWS	
Calendar Year	
Add Row	
HIDDEN DIMENSIONS	
Add Dimension	
HIDDEN MEASURES	
Add Measure	
DATA / FILTERING 🔅	

Use the "Click to set Filter Criteria" button to invoke the "Filter Editor" dialog:



Use this dialog to build filter criteria with a convenient tree-like interface:

Filter Editor	×
And Category Equals Bikes 🔻	
Advanced Mode	OK Cancel

For the OLAP data source, you cannot apply filtering by building complex filter criteria. Instead, you can filter dimension attributes and hierarchies by manually selecting the values you wish to include or exclude from the dashboard:

Filter		×
[Category]		•
(AII)		
Accessories		
Bikes		
✓ Clothing		
Components		
	Save	Cancel

Filter		×
[Category] - [Subcategory] - [Product]		•
(AII)		
Accessories		
▼ ■ Bikes		
▼ ■ Mountain Bikes		
Mountain-100 Black, 38		
	Save	Cancel

## 7.18 Top N

The Top N feature allows you to display only a limited number of values that correspond to the highest or lowest values of a particular measure.

To enable the "Top N" feature, open the dashboard item "Bindings" menu, select a required data item and go to the "Top N" section:

VALUES	×	$\leftarrow$				
Order Count		BINDING	[Date].[M	onth of Year].[Month		
Sales Amount		OPTIONS				
Add Value		DATA SHAPING	5			
COLUMNS	-					
Category Add Column		CONDITIONAL	FORMALI	ING		
		FORMAT				
ROWS	*	TOP N	Top 5 - [N	leasures].[Order Cou		
Month of Year	÷	ENABLED				
		ON		OFF		
Add Row		MODE				
HIDDEN DIMENSIONS		Тор		Bottom		
Add Dimension						
HIDDEN MEASURES		COUNT		•		
		5		•		
Add Measure		MEASURE				
		Order Count	t	•		

Click "ON" and specify the following settings:

- ✓ Enabled enables/disables this functionality;
- ✓ Mode specifies whether top or bottom values should be displayed
- ✓ Count the number of values to be displayed;
- ✓ Measure the parameter according to which the top or bottom values will be determined.

## 7.19 Sorting

The Web Dashboard allows you to easily change the sort order of values within a dashboard item. You can also enable sorting by measure values.

To change the sort order of dimension values displayed within a dashboard item, open the dashboard item Bindings menu, select a data item and go to the "Data Shaping" section. Here you can select the "Ascending" or "Descending" sort order:

COLUMNS	×	←	
Subcategory	<b>m</b>	ТҮРЕ	
SalesAmount (Sum)		<u></u> Σ Δ Λ	ABC
Add Column		BINDING	Subcategory
SPARKLINE			
Set Argument			
HIDDEN DIMENSIONS		SORTORDER	
		Ascending	Descending
Add Dimension		SORT BY	
HIDDEN MEASURES		(Value)	•
Add Measure		GROUP INTERVAL	
		None	Alphabetical

The Web Dashboard also allows you to sort dimension values by summary values calculated for a specific measure. To do this, in the drop-down "Sort Measure" list, select a measure by which you want to sort this data item.

COLUMNS	Х	←	
Subcategory	<b>a</b>	ТҮРЕ	
SalesAmount (Sum) DiscountAmount (Sum) Add Column SPARKLINE		<u></u> Σ Δ ~	ABC
DiscountAmount (Sum)		BINDING	Subcategory
Add Column		DATA SHAPING	
SPARKLINE		SORT ORDER	
Set Argument		Ascending	Descending
HIDDEN DIMENSIONS		SORT BY	
Add Dimension		SalesAmount (Sum)	-
HIDDEN MEASURES		(Value)	
Add Measure		DiscountAmount (Sum)	n) 🖑

### 7.20 Formatting Data

The Web Dashboard allows you to customize various format settings for numeric and datetime values.

VALUES	Х	$\leftarrow$	
Order Count	ā	BINDING	Measures].[Order Count]
Sales Amount	D	OPTIONS	
Add Value		CONDITIONAL FORMAT	TING
COLUMNS			
Category		FORMAT	Number
category	_2	FORMAT TYPE	
Add Column		Number	-
ROWS		UNIT	
Month of Year		Auto	-
Add Row		PRECISION	
HIDDEN DIMENSIONS		0	
Add Dimension		INCLUDE GROUP SEPAR	ATOR
HIDDEN MEASURES		ON	OFF
Add Measure		CURRENCY	
		Select	•

### 7.20.1 Formatting Numeric Values

To specify a format for numeric values, open the dashboard item "Bindings" menu, select a required data item and go to the "Format" section.

In the "Format type" field, select the required format type:

FORMAT TYPE	
Number	-
Auto	
General	
Number	
Currency	
Scientific	
Percent	

Other format settings are in effect for only specific format types:

✓ Unit – the unit to which values should be converted:

UNIT	
Ones	•
Auto	
Ones	
Thousands	
Millions	
Billions	

- $\checkmark$  Precision the number of fractional digits that should be displayed;
- ✓ Include group separators specifies whether or not separators should be inserted between digit groups;
- Currency defines the currency sign and format settings that should be used to display currency values.

#### 7.20.2 Formatting Date-Time Values

To specify a format for date-time values, use the "Format Type" option in the data item's "Format" section

FORMAT			
FORMAT TYP	PE		
Default	Full	Abbrevi	Numeric

The following list shows format types by group interval:

- ✓ Year
  - Full The full year pattern (Example 6/15/2017 1:45:30 PM -> 2017 (en-US)).
  - Abbreviated The year from 00 to 99 (Example 6/15/2017 1:45:30 PM -> 17 (en-US)).
- ✓ Quarter
  - Full The full quarter pattern (Example: 6/15/2017 1:45:30 PM -> Q2 (en-US)).
  - Numeric The quarter from 1 through 4 (Example: 6/15/2017 1:45:30 PM -> 2 (en-US)).
- ✓ Month
  - Full The full name of the month (Example: 6/15/2017 1:45:30 PM -> June (en-US)).
  - Abbreviated The abbreviated name of the month (Example: 6/15/2017 1:45:30 PM -> Jun (en-US)).
  - Numeric The month from 1 through 12 (Example: 6/15/2017 1:45:30 PM -> 6 (en-US)).
- ✓ Hour
  - Long Long hour pattern, 12-hour format (Example: 6/15/2017 1:45:30 PM -> 1:00 PM).
  - Short Short hour pattern, 24-hour format (Example: 6/15/2017 1:45:30 PM -> 13).
- ✓ Day of Week
  - Full The full name of the day of the week (Example: 6/15/2017 1:45:30 PM -> Monday (en-US)).

- Abbreviated The abbreviated name of the day of the week (Example: 6/15/2017 1:45:30 PM -> Mon (en-US)).
- Numeric The day of the week from 1 through 7 (Example: 6/15/2017 1:45:30 PM -> 2 (en-US)).
- ✓ Day-Month-Year
  - Long Long date pattern (Example: 6/15/2017 1:45:30 PM -> Monday, June 15, 2017 (en-US)).
  - Short Short date pattern (Example: 6/15/2017 1:45:30 PM -> 6/15/2017 (en-US)).
- ✓ Date-Hour
  - Long Long date pattern, long hour pattern (Example: 6/15/2017 1:45:30 PM -> Monday, June 15, 2017 1:00 PM (en-US)).
  - Short Short date pattern, long hour pattern (Example: 6/15/2017 1:45:30 PM -> 6/15/2017 1:00 PM (en-US)).
  - Time only Long hour pattern (Example: 6/15/2017 1:45:30 PM -> 1:00 PM (en-US)).
- ✓ Date-Hour-Minute
  - Long Long date pattern, long time pattern (Example: 6/15/2017 1:45:30 PM -> Monday, June 15, 2017 1:45 PM (en-US)).
  - Short Short date pattern, long time pattern (Example: 6/15/2017 1:45:30 PM -> 6/15/2017 1:45 PM (en-US)).
  - Time only Long time pattern (Example: 6/15/2017 1:45:30 PM -> 1:45 PM (en-US)).
- ✓ Date-Hour-Minute-Second
  - Long Long date pattern, long time pattern (Example: 6/15/2017 1:45:30 PM -> Monday, June 15, 2017 1:45:30 PM (en-US)).
  - Short Short date pattern, long time pattern (Example: 6/15/2017 1:45:30 PM -> 6/15/2017 1:45:30 PM (en-US)).
  - Time only Long time pattern (Example: 6/15/2017 1:45:30 PM -> 1:45:30 PM (en-US)).

## 7.21 Агрегатні функції

The Web Dashboard allows you to prepare underlying data using additional aggregation levels when creating calculated fields:



- ✓ Count returns the number of values;
- ✓ Count Distinct returns the number of distinct values;
- ✓ Sum returns the sum of all values;
- $\checkmark$  Min returns the minimum value across all records;
- $\checkmark$  Max returns the maximum value across all records;
- $\checkmark$  Average returns the average of all the values in the expression;

- ✓ StdDev returns an estimate of the standard deviation of a population, where the sample is a subset of the entire population;
- ✓ StdDevP returns the standard deviation of a population, where the population is the entire data to be summarized;
- ✓ Var returns an estimate of the variance of a population, where the sample is a subset of the entire population;
- ✓ Var P returns the variance of a population, where the population is the entire data to be summarized;
- $\checkmark$  Median returns the median of the values.

### 7.22 Hidden Data Items

The hidden data items can be used to perform various data shaping and analysis operations by measures or dimensions that do not directly take part in the visual representation of data.

To create hidden data items, click the "Add Measure" / "Add dimension" placeholders in the "Hidden Measures" / "Hidden Dimensions" data section and select an appropriate data field:

COLUMNS	Х
Subcategory	
Sales Amount	
Order Count	
Add Column	
SPARKLINE	
Set Argument	
HIDDEN DIMENSIONS	
Category	
Add Dimension	
HIDDEN MEASURES	
Add Measure	

Filter		×
[Category]		•
(AII)		
Accessories		
✓ Bikes		
Clothing		
Components		
	Save	Cancel

### 7.23 Converting Dashboard Items

The Web Dashboard provides the capability to convert data-bound dashboard items to another type.

To convert the selected dashboard item to another type, use the dashboard item's "Convert To" menu:

Sales by C	Category							COL	NVERT 1	r <mark>o</mark>			)	×
	Acce	ssories		Bikes	Gran	d Total				(	OMMON			
	Order Count	Sales Amount	Order Count	Sales Amount	Order Count	Sales Amount			Σ	đ	•	F	00	
January	1.57K	\$78.5K	1.39K	\$5.6M	2.33K	\$5.68M		E	$\odot$	Î≜Ï	24			
February	1.62K	\$83.9K	1.62K	🚖 \$8.74M	2.51K	\$8.83M					FILTER			
March	1.67K	\$86.7K	1.64K	\$7.69M	2.58K	\$7.77M	يعر			[II]	цЭ.			
April	1.72K	\$102K	1.64K	\$6.79M	2.57K	\$6.9M	<b>\$</b>		_		Ľ			
May	1.95K	\$131K	2.02K	\star \$10.1M	2.98K	\$10.2M	뫄			<u>Duplica</u>	ite curre	<u>nt item</u>		
June	1.84K	\$119K	2.01K	\$8.19M	2.88K	\$8.31M	4							
July	1.34K	\$91.5K	1.09K	\$6.02M	1.96K	\$6.11M								
August	1.48K	\$129K	1.26K	🚖 \$9.02M	2.22K	\$9.15M	E							
September	1.47K	\$125K	1.21K	\$7.88M	2.11K	\$8M	· 曲	× .						
October	1.5K	\$94.7K	1.19K	\$6.05M	2.13K	\$6.14M								
November	1.55K	\$113K	1.4K	🛊 \$9.45M	2.3K	\$9.56M								
December	1.8K	\$119K	1.91K	🚖 \$9.1M	2.83K	\$9.22M								
Grand	19.5K	\$1.27M	18.4K	\$94.6M	29.4K	\$95.9M								

### 7.24 Dashboard Title

The Dashboard Title is located at the top of the dashboard surface and can contain text and image content:

	Dashboard Ti			le text		Export	to Restore		
	Dashboard Title images			Master	Filte	er state	Maxi	mize	
				Sales by Proc	luct <b>T</b>			凸 🗱 😂	
Sales by C	ategory	/		T <sub>x</sub>	Sales by Subo	ategor	У		
Category	5	ales Amount	Gross Profit Margin	Reseller vs Inter	Subcategory Sales Amount Order Count			Order Count	
Accessories	-	\$92.7K			Mountain Bikes		\$10.8M	985	
Bikes	-	\$26.5M	~~~~	+19.6K 🔺	Road Bikes	•	\$15.7M	2.54K	
Clothing	•	\$486K							
							Avg = \$13.2M Sum = \$26.5M	Min = 985 Max = 2.54K	

To change title settings, invoke the dashboard menu and open the "Title" page:

DASHDOARD MENO	X
New	
Open	
Save	
Title	

TEXT	PREVIEW		
Sales by Product		Sales by Product <b>T</b>	
Visible			
ALIGNMENT			
Left			
Center			
Include Maste			
IMAGE			
Emb Linked None			
Image			

- $\checkmark$  Text specifies the dashboard title text;
- $\checkmark$  Visible specifies whether or not the dashboard title is visible;
- $\checkmark$  Alignment specifies the alignment of the dashboard title;
- ✓ Include Master Filter specifies whether or not to show the state of master filter items in the dashboard title.

When you hover over the filter icon  $(\mathbf{T})$ , all master filters applied to the dashboard are displayed in the invoked popup:

Category Bikes
Calendar Year CY 2006

- ✓ Image allows you to specify the image displayed within the dashboard title. The dashboard definition will contain an image as a byte array;
- $\checkmark$  Export to allows you to export the entire dashboard to PDF, Images, Excel.

## 7.24.1 Dashboard Item Caption

Each dashboard item has a caption that is displayed at the top of this item. The caption contains static text and other information, as well as command buttons:

		Multi-	Select	
		Values	Maximize	
ion text	Drill-Down value	Export to	Clear Master Fil	
Sales by Subcategory - Reseller Sales Am	ount vs Reseller Total Product Cost - Bikes	Ů ♥ Ø	Driil Up	
\$26.5M	\$29.4M	\$10.5M	*	
Mountain Bikes Mountain Bikes	Road Bikes	Touring	Bikes	
+5.66%	-3.84%		-10.59%	
+1.42M	-1.17M		-1.24M	
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~	~~~~	

To show or hide the caption of a dashboard item, go to the dashboard item Options menu and use the "Show Caption" option:

	OPTIONS	×
	COMMON	
	SHOW CAPTION	
	ON	OFF
	CAPTION	
\$	Sales by Subcategory	
<b>P</b> i		
0	LAYOUT	
₩	_	
曲		
Note: The Range Filter dashboar	d item's caption is n	ot visible by default.

### 7.24.2 Dashboard Items Layout

The Web Dashboard provides the capability to arrange and resize dashboard items and groups using simple drag-and-drop operations.

You can resize individual items/groups of items by dragging their edges:



You can change the position of a dashboard item by using drag-and-drop and the dashboard item's "Move" button.

<ul> <li>(All)</li> <li>CY 2005</li> <li>CY 2006</li> </ul>			Sales Amount	Gross Profit Margin	
	Accessories	-	\$1.27M	0	-10.3K 🔻
	Bikes	Bikes \$94.6M Clothing \$2.12M		0	+59.8K
CY 2007	Clothing			°	+55.4K
			•		
Sales by Subca	tegory				
Subcategory	Subcategory			Sales Amount	Order Count
Bib-Shorts		•		\$167K	390
Bike Racks		•		\$237K	796
Bike Stands				\$39.6K	249
Bottles and Cages		•		\$64.3K	5.21K
Bottom Brackets				\$51.8K	248
Brakes		•		\$66K	295
Caps				\$51.2K	3.38K
<u>a.</u> :				60 D01/	250
				Avg = \$3.14M Sum = \$110M	Min = 133 Max = 10K

Select a dashboard item and hover the "Move" button:

Drag the dashboard item to the expected area and release the left mouse button when the drop indicator displays the required area:

	Sales by Category						
(ILA)			Sales Amount	Gross Profit Margin	Reseller vs Interne		
CY 2005	Accessories	w	\$1,27M		-10.3K		
CV 2005	Bikes		\$94.6M	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	• + 59.8K - J		
CY 2007	Clothing		\$2.12M		• +55.6K J		



#### The dashboard item is moved to a new position:

### You can expand any dashboard item to fit the dashboard to examine data in greater detail. Click the "Maximize" button in the dashboard item caption to maximize a dashboard item:

Reseller by Subcategory				Reseller by Country - Reseller Orde
Subcategory	Reseller	Reseller Sales A	Reseller Ord	4.95K
Bib-Shorts	390	\$167K		ison .
Bike Racks	468	\$198K	+2.51K 🔺	Australia
Bottles and Cages	444	\$7.48K	-5.41K 🔻	Australia
Bottom Brackets	248	\$51.8K		-91.81%
Brakes	295	\$66K		-55.4K
Caps	1.19K	\$31.5K	+3.93K 🔺	
Chains	250	\$9.38K		Reseller Sales Amount by Category
Cleaners	419	\$11.2K	+1.5K 🔺	- 40M
Cranksets	261	\$204K		4 30M
Derailleurs	283	\$70.2K		- те У 20М
Forks	133	\$77.9K		य य 10M
Gloves	991	\$208K	+10.1K 🔺	ё <sub>ом</sub>
Handlebars	1.01K	\$171K		Accessories Clothing
Headsets	137	\$60.9K		bikes Components
Helmets	1.07K	\$259K	+6.66K 🔺	
Hydration Packs	341	\$65.5K	+1.3K 🔺	Posellor Solos Amount
Jerseys	1.45K	\$579K	+16K 🔺	Reseller Sales Amount
Locks	259	\$16.2K		
Mountain Bikes	1.22K	\$26.5M	+18.4K 🔺	Bikes: 82.41%
Mountain Frames	860	\$4.71M		Accessories: 0
Pedals	756	\$147K		Components: 14
Pumps	267	\$13.5K		Clothing: 2.21%



#### Click "Restore" to restore the item's size:

### 7.25 Undo and Redo Operations

The Web Dashboard keeps track of all user actions, and allows you to undo or repeat them using the "Undo" / "Redo" buttons.

To undo/redo the last action, use the following buttons located in the "Toolbox":



# 7.26 Exporting

The Web Dashboard allows you to export an entire dashboard or individual dashboard items to Excel, PDF, Images:

			Sales by	Category
Reseller by Subcat	egory			Reseller by Country - Res Export To
Subcategory	Reseller	Reseller Sales A	Reseller Ord	
Bib-Shorts	390	\$167K		
Bike Racks	468	\$198K	+2.51K 🔺	Australia
Bottles and Cages	444	\$7.48K	-5.41K 🔻	-91.81%
Bottom Brackets	248	\$51.8K		-55.4K
Brakes	295	\$66K		Reseller Sales Amount by Category
Caps	1.19K	\$31.5K	+3.93K 🔺	. 40M
Chains	250	\$9.38K		Zai
Cl		¢11.0V	. 1 EV 🔺	<u>0</u> 20M
			Sales by	Category 🗅
Reseller by Subcat	egory			Reseller by Country - Reseller Order Quantity vs Inter
Subcategory	Reseller	Reseller Sales A	Reseller Ord	4.95K
Bib-Shorts	390	\$167K		Australia
Bike Racks	468	\$198K	+2.51K 🔺	Australia
Bottles and Cages	444	\$7.48K	-5.41K 🔻	-91.81%
Bottom Brackets	248	\$51.8K		-55.4K
Brakes	295	\$66K		Reseller Sales Amount by Category
Caps	1.19K	\$31.5K	+3.93K 🔺	± 40M Export To
Chains	250	\$9.38K		
Cleaners	419	\$11.2K	+1.5K 🔺	
Cranksets	261	\$204K		ё <sub>ом</sub>
Derailleurs	283	\$70.2K		
Forks	133	\$77.9K		
Gloves	991	\$208K	+10.1K 🔺	Reseller Sales Amount
Handlebars	1.01K	\$171K		
Headsets	137	\$60.9K		Bikes: 82.41% Accessories: 0.71%
Helmets	1.07K	\$259K	+6.66K 🔺	Components: 14.6
Hydration Packs	241	\$65.5K	+1.2K	Clothing: 2.21%

### 7.26.1 Export to PDF

The following options are available:

Export To PDF	- Sales by Category	×
File Name: Page Layout:	Sales by Category <ul> <li>Portrait</li> <li>Landscape</li> <li>Auto</li> </ul>	
Size:	Letter	•
Show Title: Title:	✓ Sales by Category	
Scale Mode:	None	*
Include:	Filters	
Position:	Below	•
Reset	Export	Cancel

- ✓ File Name specifies the name of the exported PDF file;
- ✓ Page Layout specifies the page orientation used to export a dashboard;
- ✓ Size specifies the standard paper size (for instance, Letter or A4);
- ✓ Show Title specifies whether or not to apply the dashboard title to the exported document title;
- $\checkmark$  Title specifies the title of the exported document;
- $\checkmark$  Scale Mode specifies the mode for scaling when exporting a dashboard;
- Include allows you to include master filter values / parameter values to the exported document;
- ✓ Position specifies the position of the master filter and parameter values in the exported document.
## 7.26.2 Export to Image

The following options are available:

Export To Image - Sales by Category ×		
File Name:	Sales by Category	
Show Title:	$\checkmark$	
Title:	Sales by Category	
Image Format:	PNG 👻	
Resolution (dpi):	96	
Include:	Filters	
	Parameters	
Reset	Export Cancel	

- ✓ File Name specifies the name of the exported Image file;
- ✓ Show Title specifies whether or not to apply the dashboard title to the exported document title;
- $\checkmark$  Title specifies the title of the exported document;
- ✓ Image Format Specifies the image format in which the dashboard is exported. The following formats are available: PNG, JPEG and GIF;
- ✓ Resolution (dpi) specifies the resolution (in dpi) used to export a dashboard;
- ✓ Include allows you to include master filter values / parameter values to the exported document.

## 7.26.3 Export to Excel

Export To Ex	cel - Sales by Category	×
File Name:	Sales by Category	
Excel Format:	XLSX	•
Include:	Filters	
	Parameters	
Position:	Below	•
Reset	Export Car	icel

- ✓ File Name specifies the name of the exported Excel file;
- ✓ Excel Format specifies the Excel workbook format in which the dashboard's data is exported. You can select between XLSX and XLS;
- Include Allows you to include master filter values / parameter values to the exported document;
- ✓ Position specifies the position of the master filter and parameter values in the exported document.