

# DeltaMaster clicks!

## 05/2010

Greetings, fellow data analysts!

“Show what is different – immediately.” This is rule #18 from Bella’s new book, which explains the proper way to use data and graphics (in German, available at [www.bella-buch.de](http://www.bella-buch.de)). In other words, what interests us the most – whether in reporting or our daily lives – is the difference or variance. As a result, we should strive to show these changes first so that our readers can spot them immediately.

Using graphical tables, we can show and even measure what is different in a very simple, elegant way. And with *DeltaMaster* we can choose from many different visualization options including difference bars or columns, a new feature which has been especially designed to show differences. Difference bars or columns show experienced users of graphical tables the influence of variances in a data constellation. In this edition of *clicks!*, we’ll explain how to use this feature as well as other available alternatives.

Best regards,

Your Bissantz & Company team



### Expert forum: “Data analysis in the health care industry” on 29 April 2010 in Hamburg

Gunnar Reddemann, director for strategic controlling at Paul Gerhardt Diakonie in Berlin, shows how *DeltaMaster* has made its hospital network more efficient - and how graphical tables have improved its reporting as well.

### DeltaMaster Matinee 12 May 2010, Munich

Schreiner Group’s Martin Gockel will explain which role analysis plays in building a new data warehouse (‘analytical modeling’). Kristin Christl will show how Siemens Real Estate uses *DeltaMaster* to document and administer Siemens’ global real estate assets.  
[www.bissantz.com/matinee](http://www.bissantz.com/matinee)

### 35<sup>th</sup> Controller Congress 14 -15 June 2010, Munich

Don’t miss the session “Data-based Enterprise Management – New Methods for Analysis and Visualization” hosted by Dr. Nicolas Bissantz on day 1.  
[www.controllerverein.com](http://www.controllerverein.com)

### DeltaMaster Matinee 17 June 2010, Leipzig

We will also present two exemplary *DeltaMaster* applications at our matinee in Leipzig. Heiko Schmidtke from SCHOTT Solar Wafer will talk about analyzing quality and production data with *DeltaMaster*. Henri Lüdeke will show how BBT manages and reports direct real estate portfolios.  
[www.bissantz.com/matinee](http://www.bissantz.com/matinee)

### DeltaMaster@Work

#### 29 April 2010, Nuremberg

Create more effective reports.  
[www.bissantz.com/dm@w](http://www.bissantz.com/dm@w)


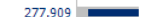
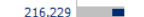
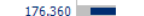






**Tip of the month** Visualizing variances with difference bars and columns

Where have variances or changes occurred? What were their causes? These are everyday questions for management accountants and controllers. And as you already know, *DeltaMaster* offers a wide range of tools – simple rankings, sophisticated data mining methods, and intelligent combinations of the two (pivot navigation, see *DeltaMaster clicks!* 10/2007 for more information) – to help you find the answers. In most cases, the starting point for detailed analysis is a report showing variances or changes. From here, users can decide if they want to investigate any interesting details or simply accept the variance without further investigation.

*DeltaMaster* offers many different options for visualizing variances. In this edition of *clicks!*, we will introduce *Difference bars* and *columns*, two new visualization options that have become popular among many of our users, and compare them with instruments that you have probably known from *DeltaMaster* for years. You can use the options described below in *Pivotizer* level or higher. In addition, each one refers to graphical tables; we won't get into pivot charts (i.e. business charts) which are difficult to automate at this point in time. For simplicity reasons, we also will not differentiate between the terms 'variance' (e.g. difference between budget and actuals) and 'changes' (difference over time). We simply want to focus on the differences in values and will use these terms loosely as synonyms.

**Let's take a look...**



As of version 5.4.3, *DeltaMaster* now offers *Difference bars* and *columns* as presentation options for pivot tables. Since the options for bars and columns are identical, we will only refer to bars in the following descriptions. You can view an example of *Difference bars* in the screenshot on your right. By the way, Dr. Rolf Hichert also suggests using this type of visualization in his seminars.

Revenues	...	Presentation	...
Customers	...	03/2009	03/2009 - 02/2009
<input type="checkbox"/> Delson	321.697		90.581
<input type="checkbox"/> SuperOffice	277.909		221.743
<input type="checkbox"/> Room and Light	216.229		52.849
<input type="checkbox"/> The Edge Office	176.360		112.805
<input type="checkbox"/> Allberg Sys	169.632		-39.631
<input type="checkbox"/> Uranus	117.889		9.490
<input type="checkbox"/> Ufo Design	112.170		66.416
<input type="checkbox"/> Robertson Dispatchers	90.927		-76.752
<input type="checkbox"/> Ambiente	86.353		19.654
<input type="checkbox"/> GoodChairs	75.715		-88.634

The table on your right compares customer revenues over time.

The first column, which is visualized as the gray bar, shows the revenues for the current month. The second column shows the variance in comparison to the previous month. This variance is shown in the first column as a difference bar (blue stands for an improvement while red shows a decline over the previous month) placed above the gray bar.

To explain this visualization in more detail, let's look at the enlarged section of the

<input type="checkbox"/> The Edge Office	176.360		112.805
<input type="checkbox"/> Allberg Sys	169.632		-39.631

screenshot on your right. The gray bar from 'The Edge Office' represents the revenues for this customer in the current month. In addition to listing this value as a number (176,360), *DeltaMaster* also shows the difference (112,805) and visualizes this as the blue offset piece in the gray bar. Although the value of the previous month is not listed, it is displayed graphically as the piece from the beginning of the gray bar to the beginning of the blue one (63,555 = 176,360 – 112,085). The blue difference bar, therefore, shows how much the 'initial' piece has grown until it has reached the length of the current value.

Revenues for 'Allberg Sys', however, have dropped. Once again, the gray bar shows the value of the current month (169,632). The red offset piece shows the difference in revenues over the past month (-39,631). The value of the previous month equals the distance from the start of the gray bar to the end of the red one.

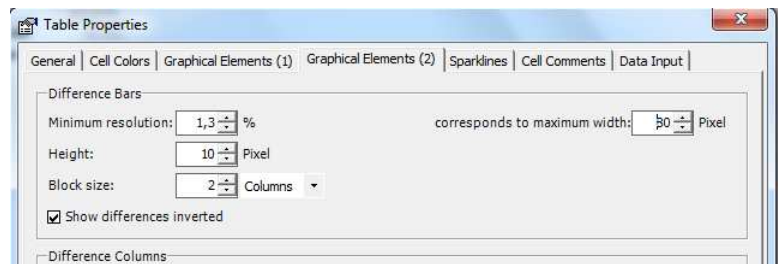
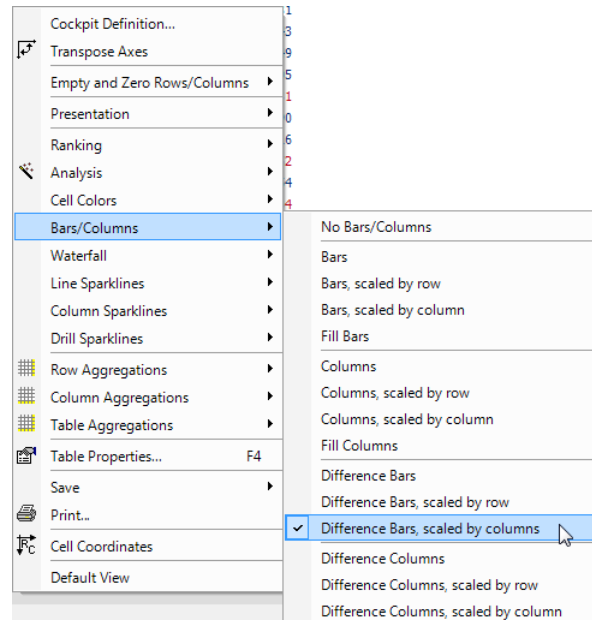
## Want more?

You can display difference bars and columns in pivot tables starting in *Pivotizer* mode using the respective options in the context menu. As with other graphical elements, you can decide which scale you would like to use: one that uses the same scale throughout the entire table (displayed in the option without additional text) or one in which the scale varies *by row* or *by column*.

When you activate difference bars for the first time, you will probably only see a gray bar without any red or blue offset pieces showing the differences. In contrast to all other graphical elements, difference bars require additional parameterization.

*DeltaMaster* assumes that the columns/rows stand in a certain relation to each other. The visualization requires a main value (in our example, the revenues for the current month) as well as one or more difference values (not percentages) that are located in columns or rows directly behind it.

To set the parameters, go to the *Table properties* of the pivot table (context menu, *I want to...* menu or *F4* key) under the *Graphical elements (2)* tab.



## Creating blocks

The most important setting here is the *Block size*. This determines how many columns or rows *DeltaMaster* should take into account and draw as difference bars. Using this visualization technique, you can also present more than one difference value. This option, however, is for very special data constellations. In most cases, you will probably only need a *Block size* of 2.

*DeltaMaster* always interprets the first column or row as the starting value and draws it as a gray bar. The following columns and rows deliver the data for the visualization in the first column/row; as a result, *DeltaMaster* will not draw anything in them. *DeltaMaster* interprets these as absolute differences in comparison to the value in the first column/row and displays them as red or blue offset pieces. As a result, if the *Block size* is set to 1, you will only see gray bars. Each column or row is its own block and has a starting value but not a difference value.

### To invert or not to invert – that is the question.

In this example, we have activated the *Show differences inverted* option (see previous screenshot showing the *Table properties*). As a result, *DeltaMaster* drew the ‘blue’ growth to the left of the right end of the ‘gray’ starting value and the ‘red’ drop in growth to the right of it. This corresponds with a column order that shows the current value (i.e. actual) followed by the variance and the comparative value (e.g. previous period or budget) – as in the screenshot. In this visualization, therefore, a positive difference is placed in the gray bar.

Revenues	...	Presentation	...	03/2009 - 02/2009	02/2009
Customers	...	03/2009			
Delson		321.697		90.581	231.116
SuperOffice		277.909		221.743	56.166
Room and Light		216.229		52.849	163.380
The Edge Office		176.360		112.805	63.555
Allberg Sys		169.632		-39.631	209.263

If you don't choose the *Inverting option*, the exact opposite occurs; *DeltaMaster* will draw positive differences to the right and negative ones to the left from the same place. This is the equivalent to a column order that shows the comparative value (e.g. previous period or budget) first followed by the variance and current value (i.e. actual).

Revenues	...	Presentation	...	03/2009 - 02/2009	03/2009
Customers	...	02/2009			
Delson		231.116		90.581	321.697
SuperOffice		56.166		221.743	277.909
Room and Light		163.380		52.849	216.229
The Edge Office		63.555		112.805	176.360
Allberg Sys		209.263		-39.631	169.632

### Bars for differences instead of difference bars

You can certainly also use other well-proven features in *DeltaMaster* to visualize the same data in a slightly different manner, for example by activating the *Show bars* option in the context menu. Together with the *Notation (Model menu, see DeltaMaster clicks! 8/2009)*, you can create a visualization like the one below without needing to set any additional parameters.

One value, one graphical element – that is easy to understand without any further explanation.

Revenues	...	Presentation	...	03/2009	03/2009 - 02/2009
Customers	...	03/2009			
Delson		321.697		90.581	
SuperOffice		277.909		221.743	
Room and Light		216.229		52.849	
The Edge Office		176.360		112.805	
Allberg Sys		169.632		-39.631	
Uranus		117.889		9.490	
Ufo Design		112.170		66.416	
Robertson Dispatchers		90.927		-76.752	
Ambiente		86.353		19.654	
GoodChairs		75.715		-88.634	

And which visualization option is best? As in so many cases, it depends on the underlying data and the intended message.

### Questions? Comments?

Just contact your Bissantz team for more information.