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SAP Lumira

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End User Guide: SAP Lumira Designer

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1 About this Guide

1.1 Who Should Read this Guide?

This guide is intended for users working with analysis applications on desktop browser and mobile devices.

2 Getting Started

2.1 What is SAP Lumira ?

SAP Lumira enables customers to gain insights from trusted enterprise data sources and personal data, and to share those insights through interactive visualizations, stories, and tailored analysis applications with other users, on desktop browsers and mobile devices.

SAP Lumira provides connectivity to SAP enterprise data models in SAP BW, SAP HANA, and SAP BusinessObjects universes (UNX) as well as to a wide variety of 3rd party databases and file data, for data acquisition, cleansing and manipulation. In addition, online connectivity with full support of SAP HANA and SAP BW (including BW Integrated Planning and SAP Business Planning and Consolidation 10.1 Embedded) data models is provided to enable drill-down into the lowest granularity of trusted data without data replication. Integration with SAP HANA smart data streaming is also provided to enable true real-time applications.

To visualize data and enable interactivity, SAP Lumira provides powerful UI elements such as charts, crosstabs, geo maps and filter components out of the box, along with a rich set of ready-to-run analysis applications, templates, and samples. Both self-service dashboards and tailored, centrally (IT) managed applications are built from the same libraries of UI elements and the same data connections and sources, to provide a uniform and consistent experience for business end users. The UI element library is based on the latest SAPUI5 HTML5 library, and ensures alignment with SAP's Fiori UI strategy while leaving full flexibility to customize the look and feel according to customer-specific corporate standards. Rich APIs and SDKs are provided to create customer-specific visualizations and data connectors, thanks to a considerable ecosystem of partner extensions.

SAP Lumira provides dedicated tools and deployment units to serve the particular needs of business key users, corporate analysis application designers, administrators, and business end users:

SAP Lumira Discovery

SAP Lumira Discovery is the rich client for business key users who need a flexible tool to connect to data sources, acquire, manipulate, and merge data, to work offline with data, to explore and analyze data online, and to create stories with visualizations from all types of data in an ad-hoc fashion.

SAP Lumira Designer

SAP Lumira Designer is the rich client for professional analysis application designers (typically working in IT departments) to create corporate analysis applications and reports. Lumira Designer provides the same UI elements as Lumira Discovery and more, and allows full control of the application look and feel and user interaction through scripting and corporate CSS style sheets. Lumira Designer also enables the creation of shared UI elements (such as headers, footers, toolbars) and the breaking down of complex applications into smaller, more manageable parts, which enable cost-effective management of large corporate BI deployments.

SAP Lumira Server

SAP Lumira Server is installed on the SAP BusinessObjects BI platform and hosts the execution runtime of Lumira documents that are created from Lumira Discovery and Lumira Designer, as well as analysis applications created with Lumira Designer or Design Studio. Administrators manage and secure Lumira documents and analysis applications with standard tools and mechanisms of the BI platform. Business users can view Lumira documents and analysis applications from the BI Launchpad in desktop browsers or on mobile devices through SAP BusinessObjects Mobile. They can interact with data (filtering, sorting, ranking, for example), adapt visualizations, create and share personal views (bookmarks), export data, and print Lumira documents.

Interoperability

All three deployment units share the same technology stack for data connectivity, UI elements, personalization, and collaboration, enabling a coherent user experience and smooth interoperability between the Lumira deployment units:

WYSIWYG layout and design

Stories (created with Lumira Discovery) and analysis applications (created with Lumira Designer) use the same data and look the same for authors and for consumers.

Extension of Lumira Discovery stories

Lumira Discovery stories can be opened and enhanced in Lumira Designer, to evolve an ad-hoc story into a corporate application, for example.

Open extended stories in Lumira Discovery

Lumira Discovery stories that have been extended in Lumira Designer can be viewed in Lumira Discovery, and further enhanced with functionalities such as adding new datasets, creating new stories, and others.

Data Manipulation for Lumira Designer

Prepared data sets from Lumira Discovery can be used as data sources in Lumira Designer, to meet information needs that cannot be served with online data connectivity.

3 Working with the Crosstab

3.1 Adjusting Column Width in Crosstab for Desktop Applications

You can adjust the column width in crosstabs.

Context

If the content of a column in the displayed crosstab is larger or smaller than the calculated column width, you can adjust the column width to the length of the cell content.

Procedure

1. Hover over the column header cell that you want to adjust, to show the clickable area in the right cell margin (column separator).
2. Double-click this area to adjust the column width. You can also pull the column separator with the mouse device to the left or the right to adjust the column width.

3.2 Adjusting Column Width for Crosstabs for iPad Applications

Context

If the content of a column in the displayed crosstab is larger or smaller than the calculated column width, you can adjust the column width to the width of the cell content.

Procedure

1. Tap and hold the column header cell you want to adjust.
2. Choose *Adjust column width*.

3.3 Calculating New Measures at Runtime

Based on measures that are available in your crosstab, you can calculate new measures. There are two types of calculations.

For simple calculations, you use two or more available measures as operands and an operator to create a new measure. The new measure is the sum of two available measures, for example.

For dynamic calculations, you only use one available measure as an operand and you create a new measure based on this operand. For example, if you use sales volume per region as the operand, you can add a new measure that displays the rank of each region according to sales volume. If you now filter out or add new regions to your analysis, the rank numbers are changed dynamically. These calculations are therefore called dynamic calculations. The newly created measures are added to the crosstab. You can edit the name and delete measures by using the context menu for these measures.

Depending on the data source you can also use calculations that are based on dialog boxes where you can specify your calculation.

Related Information

[Adding \(Simple\) Calculations \[page 8\]](#)

[Adding Dynamic Calculations \[page 9\]](#)

3.3.1 Adding (Simple) Calculations

Context

By adding a (simple) calculation, you can create a new measure based on two or more available measures in your crosstab. The menu entry *Add Calculation* in the context menu of the crosstab is only available if the *Selection Type* property of the crosstab component has been set to *Multi* at design time.

Procedure

1. Select the measure headings that you want to use.

The first measure that you select is the first operand. Use the **CTRL** key to select the next measure that is the second operand. You can also select more than two operands for your calculation.

2. In the context menu, choose ► **Add Calculation** ► **[Operator]** ►.

The following operators are available:

- Add
- Subtract
- Multiply
- Divide
- Percentage Difference

The new measure calculates the difference between operand 1 and operand 2 as a percentage. For example, operand 1 has the value 80 and operand 2 has the value 20. The new measure displays the value 300%, as the difference is 60 and 60 is 300% of 20. If operand 2 has a higher value than operand 1, the result is negative. For example, operand 1 has value 20 and operand 2 has value 80. The new measure displays the value -75%, as the difference is -60 and -60 is -75% of 80.

- Percentage Share

The new measure calculates the share of operand 1 in comparison with operand 2 as a percentage. For example, operand 1 has the value 20 and operand 2 has the value 80. The new measure displays the value 25%, as 20 is 25% of 80.

Results

The new calculated measure is added to the crosstab.

A measure value displayed with sign reversal is used in calculations as displayed.

❖ Example

A measure value is 200. If you have selected the sign reversal property in the query definition, the value is displayed as -200 in the crosstab. For calculations in Lumira Designer, the value 200 is used. If you select this checkbox, the value -200 is used for calculations.

3.3.2 Adding Dynamic Calculations

Context

By adding a dynamic calculation, you can create a new measure based on one measure in your crosstab that works as operand. Or depending on the data source and context you can use calculations that are based on dialogs.

Procedure

1. Select the measure heading that you want to use.
2. Choose ► *Add Dynamic Calculation* ► [Operator] ►.

The following operators are available:

Operator	Description
<i>Moving Minimum Value</i>	<p>The new measure displays the lowest value available up to this point.</p> <p>For example, there are ten rows with values in your cross-tab. The new measure starts in the first row with the same value as the original measure. If the second row in the original measure has a higher value than the first, the value of the first row is repeated in the second row of the new measure and so on.</p>
<i>Moving Maximum Value</i>	<p>The new measure displays the highest value available up to this point.</p>
<i>Accumulative Sum</i>	<p>The new measure displays the sum of all values up to this point.</p> <p>For example, the original measure has eight rows with values. In the fourth row of the new measure, the sum of first four rows is displayed.</p>
<i>Accumulative Sum of Rounded Values</i>	<p>The new measure displays the sum of all rounded values up to this point.</p>
<i>Accumulative Count of All Values</i>	<p>The values per measure are counted and numbered starting with 1 for the first value. If there are 8 rows with values, including zeros, which contribute to the total, the new measure displays the numbers 1 to 8 for the 8 values.</p>
<i>Accumulative Count of All Values that are Not Zero, Null or Error</i>	<p>The values per measure are counted and numbered starting with 1 for the first value, excluding values that are equal to zero.</p> <p>For values that are equal to zero, the last number is repeated.</p>
<i>Moving Average</i>	<p>The new measure calculates the average of all values up to this point.</p> <p>For example, if there are five rows with values in the cross-tab, the new measure calculates in row 2 the average of the values in row one and two, and so on.</p>

Operator	Description
<i>Moving Average that is Not Zero, Null or Error</i>	The new measure calculates the average of all values up to this point, excluding values that are equal to zero.
<i>Rank Number</i>	<p>The new measure displays a rank number for each value of the original measure. The highest value in the original measure has the rank number 1.</p> <p>If a value occurs more than once, the values are assigned to the same rank number. If there are two identical values with rank number 4, the next smallest value has rank number 5.</p>
<i>Olympic Rank Number</i>	<p>The Olympic ranked list differs from the basic ranked list as follows: In the Olympic ranked list, when a value occurs more than once, the next lowest value is not assigned the rank incremented by one, but the rank that corresponds to the number of previous values (including the current value).</p> <p>For example, if the rank 4 occurs twice, the new measure displays number 6 for the next lowest value rank.</p>
<i>Percentage Contribution</i>	The new measure calculates the percentage contribution of a value in the original measure to the overall result of the original measure.

Depending on the data source and context you can also use the following calculation dialogs:

- Counter
- Running Calculations
 - Average
 - Count
 - Minimum
 - Maximum
 - Sum
- Moving Average
- Percentage Of
- Difference From
- Custom Calculation

Results

The new measure is added to the crosstab.

3.4 Creating Filters by Measure

By using the *Filter by Measure* entry in the context menu on a dimension in the crosstab, you can define filters to get the Top N or Bottom N values of a specified dimension, based on their measure values.

This means the filter is applied to the members of the selected dimension and does not affect totals or subtotals in your crosstab.

Filtering measures is a dynamic action. Whenever you change the view of your data, the filter is applied again. For example, if you add a Top 5 filter, five members are shown in your analysis. If you then add members that you previously removed from the crosstab, some of these newly added members could match the Top 5 criteria and replace some of the previously displayed members.

Prerequisites

This function is only available for SAP BW data sources or data sources based on SAP HANA HTTP connections via SAP HANA Info Access Service (InA).

SAP BW data sources	SAP HANA data sources
<p>The menu entry <i>Filter by Measure</i> is only available in the context menu if there is only a measure structure contained in the query.</p> <p>Therefore Filter by Measure is not available in the following scenarios:</p> <ul style="list-style-type: none">• queries with two structures• queries with no structure• queries with no structure and a measure restriction in the fixed filter (selection space)• queries with one non-measure structure (and a measure restriction in the fixed filter)	<p>SAP HANA data sources (via InA / HTTP connection) only offer a restricted feature set:</p> <ul style="list-style-type: none">• Only one measure based filter is supported per data source. Therefore the menu entry is automatically deactivated as soon as the data source has one measure-based filter and will only be activated again if this filter is removed• If one dimension in the drilldown (rows or columns) contains an active hierarchy, measure-based filters are not supported. Therefore this menu entry is deactivated.

Creating a measure-based filter

1. Right-click on a dimension header or dimension member in your crosstab and choose *Filter by Measure*. A new dialog box opens.
2. In the dialog box, perform the following steps:
 - Choose the measure that you want to use as the basis for filtering.
 - Choose the operator (*Top N* or *Bottom N*).
 - Enter a value for the operator (filter criteria), for example, 5 for Top 5.
 - Choose *OK*.

A new measure-based filter is created for the dimension you have chosen. This means that the filter only filters the values for this dimension, for example, you filter the Top 5 customers based on their revenue by choosing the customer dimension.

If you have additional dimensions in the drilldown, they are not filtered.

Editing a measure-based filter

1. Right-click on a dimension header or dimension member in your crosstab.
2. Choose **Filter by Measure > Edit** to edit an existing measure-based filter. A new dialog box opens.
3. Choose the measure, the operator and value for filter criteria according to your needs.
4. Choose OK. The measure-based filter is changed according to your input.

Deleting a measure-based filter

1. Right-click on a dimension header or dimension member for which you have created a measure-based filter.
2. Choose **Filter by Measure > Clear** to remove the measure-based filter that you have created for this dimension.

If you have multiple filters defined for multiple dimensions, you need to repeat this procedure for every dimension that contains a measure-based filter.

(De)activating predefined conditions

Measure-based filters that were created in another tool (for example, BEx conditions created in BEx Query Designer or filters created in SAP BusinessObjects Analysis, edition for Microsoft Office) can only be (de)activated in Lumira Designer.

1. Right-click on a dimension header or dimension member in your crosstab.
2. Choose **Predefined Measure Filters** and click on any of the listed filters to activate or deactivate them.

3.5 Defining New Conditional Formatting Rules Based on Measures for BEx Query Exceptions

You can define conditional formatting rules for measures at runtime, in addition to the BEx Query Exceptions defined in the BEx query.

Context

If the application designer has set the crosstab property *Conditional Formatting Visible* to true, you can define additional conditional formatting rules for BEx query exceptions based on measures (key figures in SAP BW). When you change these rules you cannot change the content of existing BEx query exceptions, but you can change their visualization.

Procedure

1. Right-click somewhere in your crosstab, open the context menu and select *Conditional Formatting*.
2. In the *Conditional Formatting Manager* dialog box, select *New* to define new conditional formatting.
3. In the *New Conditional Formatting* dialog box enter a name for your conditional formatting rules set and choose in the *Based On* list the measure that this rule should be applied to.
4. Choose a formatting option in the *Format* list.

The following options are available:

- *Background*
 - *Value*
 - *Status Symbol*
 - *Trend Ascending*
 - *Trend Descending*
 - *Trend Gray*
5. Under *Definition*, define the rule by selecting which style should be applied and which comparison operator should be used to evaluate the cell value.
 6. Click *Add* when you have finished defining the rule.

The rule is listed in the *Defined Rules* area of the dialog box, where you can edit and delete the rule. To define further rules, repeat steps 4 and 5.

7. Click *OK* when you have finished defining the rules for the conditional formatting rules set.

In the *Conditional Formatting Manager* dialog box your conditional formatting catalog is displayed. Here you can delete, copy or edit it again or create a new one.

8. Click *OK* in the *Conditional Formatting Manager* dialog box.

Results

The conditional formatting you defined is automatically applied to the dataset in the crosstab.

3.6 Changing Existing Conditional Formatting Rules Based on Measures for BEx Query Exceptions

You can change existing conditional formatting rules for BEx query exceptions that have been defined when the query has been created.

Context

If the application designer has set the crosstab property *Conditional Formatting Visible* to true and your crosstab has an underlying data source with BEx query exceptions you can change existing conditional formatting rules for BEx query exceptions based on measures (key figures in SAP BW). When you edit existing rules, only the visualization of existing BEx query exceptions can be changed, not their content. If you copy them first, you can change the copy in all respects and deselect the original rule.

Procedure

1. Right-click somewhere in your crosstab, open the context menu and select *Conditional Formatting*.
2. In the *Conditional Formatting Manager* dialog box, select one of the existing rules and select *Copy* or *Edit* to change the conditional formatting.
 - If you edit an existing rule by selecting the original rule and choosing *Edit*, you can only change the visualization of the rule under *Format* and not its content.
 - If you copy an existing rule, the copy is displayed right under the original rule. Select the copy and change it by following steps 3 to 7. Afterwards you can deselect the original rule and select the copy to be applied.
3. In the *New Conditional Formatting* dialog box enter a name for your conditional formatting rules set (overwrite the copy's name) and choose in the *Based On* list the measure that this rule should be applied to.
4. Choose a formatting option in the *Format* list.

The following options are available:

- *Background*
- *Value*
- *Status Symbol*
- *Trend Ascending*
- *Trend Descending*

- *Trend Gray*
- 5. Under *Definition*, define the rule by selecting which style should be applied and which comparison operator should be used to evaluate the cell value.
- 6. Click *Add* when you have finished defining the rule.

The rule is listed in the *Defined Rules* area of the dialog box, where you can edit and delete the rule. To define further rules, repeat steps 4 and 5.
- 7. Click *OK* when you have finished defining the rules for the conditional formatting rules set.

In the *Conditional Formatting Manager* dialog box your conditional formatting catalog is displayed. Here you can deselect the original rule if you want that the copied rule is applied.
- 8. Click *OK* in the *Conditional Formatting Manager* dialog box.

Results

The conditional formatting you defined is automatically applied to the dataset in the crosstab.

4 Working with Drag and Drop in Applications and Crosstabs

Prerequisites

When working with drag and drop functionality in applications and crosstabs, please note the following points:

- Drag and Drop cannot be used when the crosstab is used in the planning mode, that means if the crosstab contains input ready cells.
- Drag and Drop is not supported for mobile scenarios (for example, applications running on the iPhone or iPad)

Enabling/Disabling Drag and Drop

Drag and Drop can be enabled and disabled on application level and on component level:

- On Application Level
Use the application property *Drag and Drop between Components* to specify if drag and drop operations between different components are allowed. This property is set to *false* by default, which means that drag and drop operations cannot be carried out between components. Drag and Drop operations within one single component are still possible, if the crosstab (component) level property is set to *true* or *Advanced* (see next section). Set this property to *true* or *Advanced*, if you want to enable drag and drop operations between components (for example, between the Navigation Panel and the Crosstab).
- On Crosstab (component) Level
Use the crosstab property *Drag and Drop enabled* if you want to enable drag and drop operations within the crosstab. The property is set to *false* by default, what means that the crosstab does not allow any drag and drop operations. If this property is set to *true* or *Advanced*, the crosstab:
 - enables internal drag and drop operations. Thus the application user can drag and drop dimensions and members within the crosstab and remove dimensions and members by dragging and dropping them outside the area of the crosstab.
 - accepts external drops of dimensions from other components (for example, the navigation panel). This only works if the application property *Drag and Drop between Components* is set to *true* or *Advanced* as well.

For further information about the respective application and crosstab properties, see “Properties of the Application” and “Crosstab” in the *Application Designer Guide: Designing Analysis Applications* on SAP Help Portal.

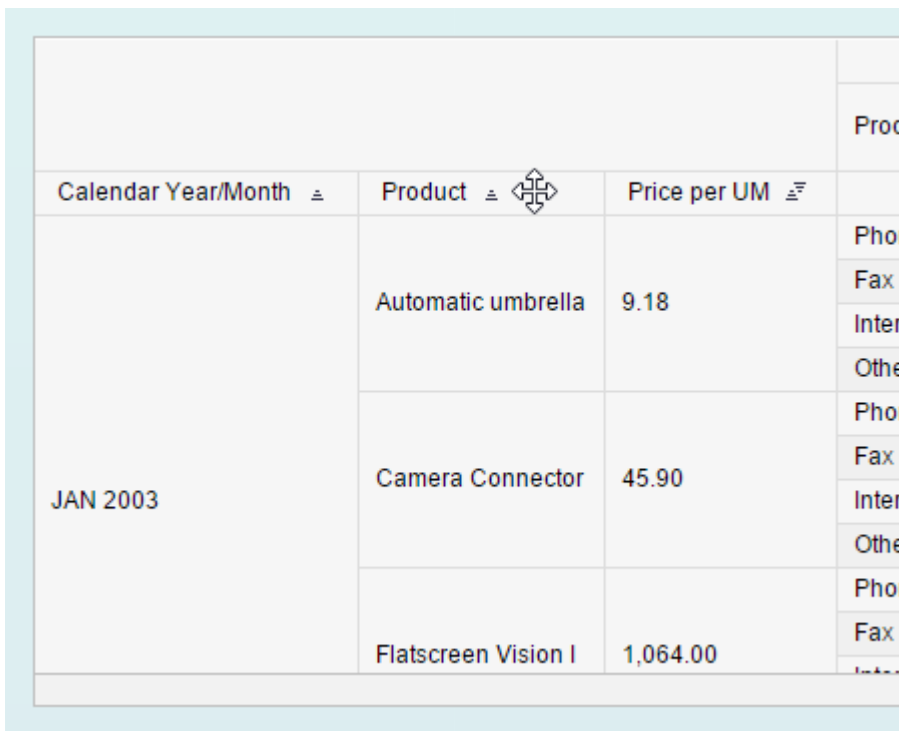
In the following documentation chapters, you will find more specific information about different drag and drop aspects.

4.1 Dragging a Dimension or Dimension Member

General aspects

Dimensions or members that can be dragged can be easily identified: the mouse cursor changes when you hover above them. Drag and drop operations in the crosstab can only be performed for one single dimension or one single dimension member. You cannot select multiple members and drag the members in the selection around the crosstab, even if the *Selection Type* property of the crosstab has been set to *multi*.

The mouse cursor changes to the "move" cursor type (dimension "Product", for example):



Calendar Year/Month	Product	Price per UM	Prod
JAN 2003	Automatic umbrella	9.18	Phor Fax Inter Othe
	Camera Connector	45.90	Phor Fax Inter Othe
	Flatscreen Vision I	1,064.00	Phor Fax Inter

When you start to drag a dimension or member, the drag ghost displays all cells that belong to the respective dimension. This means text fields and attributes are displayed. In this example, the dimension "Product" has the attribute "Price per UM", which is displayed in the drag operation as well:

				Product gr
Calendar Year/Month	Product	Price per UM		
JAN 2003	Product	Price per UM		Phone
	Automatic umbrella	9.18		Fax
				Internet
				Others
	Camera Connector	45.90		Phone
				Fax
				Internet
				Others
	Flatscreen Vision I	1,064.00		Phone
			Fax	
			Internet	

For all drag (and drop) operations, dimension and member data with all related fields like texts or attributes are always treated as a single unit. In this example, this means it is not possible to drag and drop “Price per UM” separately, because it is an attribute for dimension “Product”. This behavior is also valid for the “Product” cell that represents the “Product” dimension’s text. Therefore, you can grab and drag any cell (text, attribute) for a dimension, in order to move the whole cell block that belongs to that dimension.

Drag and drop operations within the crosstab as well as drag drop operations from the navigation panel to the crosstab can be canceled before dropping the element by pressing the **ESC** key on the keyboard.

The dimension header split cell

Typically, when no scaling factor is specified on the rows or on the columns axis in the drilldown, the pivot cell of the dimension header hosts the respective dimension from the rows and from the columns axis. In order to drag a dimension out of this cell, you need to render this cell as a "split" cell with a diagonal separator. The two areas created by this separator determine which dimension will be dragged when dragging is started from a position within the cell. In the following example, the “Currency” dimension on the rows axis is dragged when starting the drag operation from the lower left cell area:

		0BC_COUNT		
Fiscal year		K4/2004		
		Calendar year, 4 spec. periods 2004		
Currency Calendar Year/Month		JAN 2004	FEB 2004	MAR 2004
Euro				
Euro				
Euro	Currency			
Euro				
Euro				
Euro				
Euro		1		
Euro				
Euro				
Euro		1		
Euro				

Starting from the same cell, but using the upper right cell area, the "Calendar Year/Month" dimension on the columns axis is dragged:

		0BC_COUNT		
Calendar Year/Month		K4/2004		
Fiscal year		Calendar year, 4 spec. periods 2004		
Currency Calendar Year/Month		JAN 2004	FEB 2004	MAR 2004
Euro				
Euro				
Euro				
Euro				
Euro				
Euro				
Euro		1		
Euro				
Euro				
Euro		1		
Euro				

Structures usually do not have a text rendered in the crosstab. The drag ghost always displays a text, and hence a split cell, as shown below, allows you for example to grab and drag the measure structure out of the pivot cell:

Calendar Year/Month	JAN 2004		
Fiscal year	1/4/2004		
	Measures		
	Calendar year, 4 spec. periods 2004		
Currency	OBC_COUNT	OBC_DATE2	OBC_DATE3
Euro			
Euro			
Euro			
Euro			
Euro			
Euro			
Euro	1	1/13/04	1/13/04
Euro			
Euro			
Euro	1	1/29/04	1/29/04
Euro			

4.2 Removing a Dimension or Dimension Member

You can remove a dimension or dimension member from the drilldown by dragging the element out of the visible crosstab area. When you do this, the drag ghost will show a trash can symbol to indicate that dropping the element at the current position will remove the element:

			Formula 3			CALC			FORMULA		
			DS30	DS20	Overall Result	DS30	DS20	Overall Result	DS30	DS20	Overall Result
			Hardware software	Accessories+space		Hardware software	Accessories+space		Hardware software	Accessories+space	
Calendar Year/Month	Product	Price per UM	ST	ST	ST	\$	\$	\$	\$	\$	\$
JAN 2003	Automatic umbrella	9.18	Phone	1,704,488	1,704,488		1,955,470.00	1,955,470.00			7,821,880.00
			Fax	2,480,748	2,480,748		2,846,088.50	2,846,088.50			11,384,354.00
			Internet	1,255,412	1,255,412		1,440,321.00	1,440,321.00			5,761,284.00
	Camera Connector	45.90	Others	599,876	599,876		688,267.50	688,267.50			2,753,070.00
			Phone	5,294,964	5,294,964		3,032,347.50	3,032,347.50			12,129,390.00
			Fax	7,436,492	7,436,492		4,258,818.00	4,258,818.00			17,035,272.00
	Flatscreen Vision I	1,064.00	Internet	4,142,948	4,142,948		2,372,611.50	2,372,611.50			9,490,446.00
			Others	1,874,248	1,874,248		1,073,347.50	1,073,347.50			4,293,390.00
			Phone	2,136,620	2,136,620	2,817,174.50	2,817,174.50	11,268,698.00			
				Fax	3,145,856	3,145,856	4,147,696.50	4,147,696.50	16,590,786.00		

Note

Keep in mind that structures cannot be removed from the drilldown unless they only contain a single member. If you want to remove members of a structure (for example, the measure structure), at least one structure member must remain in the structure. Otherwise you cannot remove a member.

4.3 Dropping Dimensions or Dimension Members

Drop targets for dimensions and dimension members can be other dimensions (or, in the case of members, other members), or the respective drop areas between dimensions and members. Dropping a dimension on another dimension or a member on another member exchanges the two elements, whereas dropping a member/dimension on a respective drop area inserts the member/dimension at the respective drop area position.

A valid drop target is highlighted accordingly, for example, when you drag the “Product Group” dimension onto the “Product” dimension or the “Phone” member onto the “Internet” member, as in the following examples:

Exchange operations

Dimension drop:

		Product group	Formul
		DS30	
		Hardwa	
Calendar Year/Month	Product	Price per UM	ST
JAN 2003	Automatic umbrella	Product group	9.18
		Phone	
		Fax	
	Camera Connector	Internet	
		Others	
		Phone	45.90
	Flatscreen Vision I	Fax	
		Internet	
		Others	1,064.00

i Note

The drop target highlighting also highlights all cells that belong to the dimension, including text/key and attribute field cells.

A "split cell" that is a pivot cell that hosts both a dimension on the rows axis and columns axis (for more information, see section *The dimension header split cell* in [Dragging a Dimension or Dimension Member \[page 18\]](#)), cannot be a drop target. In order to drop onto a dimension that is contained in a split cell, you first have to swap or move the dimension out of this cell.

Member drop:

			Formula 3		
			Product group	DS30	DS20
				Hardware software	Accessori
Calendar Year/Month	Product	Price per UM		ST	ST
JAN 2003	Automatic umbrella	9.18	Phone		
			Fax		
			Internet		
			Others		
	Camera Connector	45.90	Phone		
			Fax		
			Internet		
			Others		
	Flatscreen Vision I	1,064.00	Phone	2,136,620	
			Fax	3,145,856	
			Internet	1,616,568	
			Others		

If you release the left mouse button at the respective positions, the dimensions/members are exchanged with each other.

Insert/move operations

You can perform an insert operations by dragging elements and dropping them on drop areas, which are displayed as horizontal or vertical lines when you hover over them:

The following example shows how to drop a dimension on the rows axis by dragging the “Product Group” dimension between “Calendar Year/Month” and “Product”.

i Note

Since “Product” and “Price per UM” belong to the same dimension (“Product”), you cannot position “Product Group” between these two, and hence no drop area appears when you hover over the respective position. The cell to the left of the drop area, is grayed out, except when the drop area at the very left (or very right for RTL) or the drop area at the very top is highlighted. In this case, the grayed out cell is the cell next to (left, right or below) the cell where the dragged dimension will be inserted.

Calendar Year/Month	Product	Price per UM	
JAN 2003	Automatic umbrella	9.18	Phone Fax Interne Others
	Camera Connector	45.90	Phone Fax Interne Others
	Flatscreen Vision I	1,064.00	Phone Fax Interne

The following example shows how to drop a dimension on the columns axis by positioning the “Distribution Channel” structure between “Product Group” and the measure structure.

If you release the left mouse button, the dragged dimension is moved into the new position.

If you want to insert members, proceed like in the following examples:

- Moving dimension member “Others” ahead of “Fax”. This means insert the member between “Phone” and “Fax”.

Calendar Year/Month	Product	Price per UM	Formula 3	
			Product group	
JAN 2003	Automatic umbrella	9.18	DS30	DS20
			Hardware software	Access
			ST	ST
JAN 2003	Camera Connector	45.90	Phone	
			Fax	
			Internet	
JAN 2003	Flatscreen Vision I	1,064.00	Phone	2,136,620
			Fax	3,145,856
			Internet	1,010,500

- This procedure also works for other elements on the rows axis and columns axis, like inserting “DS30” between “DS20” and the “Overall Result”.

		Formula 3			CALC
Price per UM ₪	Product group	DS30	DS20	Overall Result	DS30
		Hardware software	Accessories+space		Hardware sof
		ST	ST	DS30	
9.18	Phone		1,704,488	1,704,488	
	Fax		2,480,748	2,480,748	
	Internet		1,255,412	1,255,412	
	Others		599,876	599,876	
45.90	Phone		5,294,964	5,294,964	
	Fax		7,436,492	7,436,492	
	Internet		4,142,948	4,142,948	
	Others		1,874,248	1,874,248	
1,064.00	Phone	2,136,620		2,136,620	2,817,1
	Fax	3,145,856		3,145,856	4,147,6
	Internet	1,616,568		1,616,568	2,121,1

4.4 Drag and Drop Constraints

When using drag and drop, please note the following points:

- Drag and drop only works for single elements under the mouse cursor. This means only one dimension/ dimension member at a time can be dragged and dropped.
- If there are two or more structures on the axes, a structure can only be removed if it contains no more than one member . If there is only one structure, it can always be removed.
- Dimensions can only be dropped on dimensions and the respective drop areas, if the setting *Drag and Drop Enabled* is set to *true*. If this setting is set to *Advanced*, dimensions can also be drag and dropped to data cells.
- Dimension members can only be dropped on dimension members and the respective drop areas.

- Members can only be dragged and dropped within the previous peer dimension's member space. Example:

			Formula 3		
			Product group	DS30	DS20
			Hardware software	Access	
Calendar Year/Month	Product	Price per UM	ST	ST	
JAN 2003	Automatic umbrella	9.18	Phone		
			Fax		
			Internet		
			Others		
			Phone		
	Camera Connector	45.90	Fax		
			Internet		
			Others		
			Phone		2,136,620
	Flatscreen Vision I	1,064.00	Fax		3,145,856
			Internet		1,016,500

In this example, the structure member "Others" can only be moved within the space that is spanned by the previous peer dimension's member, which is "Camera Connector".

- Hierarchy members can only be dragged and dropped within the same drill level
- Hierarchy members cannot be removed.
- A "split cell" (pivot cell) is not a drop target.
- "Result" members can be dragged, but cannot be dropped on drop areas or other dimension members. For other members you cannot choose result members as drop targets. The only drop action available to "Result" members is to drop them outside the crosstab to remove them from the view.

4.5 Dragging and Dropping Between Crosstab and Navigation Panel

If you want to drag and drop between the navigation panel and the crosstab, note the following points:

- You first have to enable drag and drop between different components by setting the application property *Drag and Drop between Components* to *true*. For more information, see section *Enabling/Disabling Drag&Drop* in [Dragging and Dropping Between Crosstab and Navigation Panel \[page 26\]](#)
- Only dimensions can be dragged from the navigation panel and dropped on crosstab dimensions and their respective drop areas.
- You can cancel the drag operation by pressing the `[ESC]` key on the keyboard.
- The navigation panel can only act as a dimension drag source for the crosstab. Members cannot be dragged from the navigation panel, and the navigation panel is not a drop target for members or dimensions that are dragged from a crosstab.
- If dimensions, which are already contained on any axis of the crosstab drilldown, are dragged from the navigation panel to the crosstab, the crosstab will not accept the drop, neither for dimension cells nor for drop areas. Only dimensions that are not already in the drilldown are accepted. Thus, if you want to reorder

dimensions, you need to do this either within the crosstab or within the navigation panel. You cannot reorder by dragging and dropping a dimension already contained on an axis from the navigation panel to the crosstab.

4.5.1 Dragging and Dropping a Dimension to a Data Cell

If you want detailed information on a specific figure within the crosstab, you can drag and drop a dimension which is currently not visible in the crosstab onto a data cell.

Prerequisites

If you want to use this feature, the crosstab property *Drag and Drop Enabled* must be set to *Advanced*.

Additionally, the dimension must be located on the free axis.

When you drag a dimension from outside the crosstab (for example from the Navigation Panel) onto a data cell in the crosstab, this data cell is marked as droppable upon hover.

				Store Sales	
		Marital Status		M	
First Name	Customer Name	Store City Gender	F	M	Result
A. Catherine	Binkley	5371 Holland Circle			
		Result			
Aaron	Lemay	2342 Waltham St.	Store	36.42	36.42
		Result		36.42	36.42
	Story	5179 Valley Ave		50.23	50.23
		Result		50.23	50.23
Result			86.65	86.65	
Abe	Tramel	5006 Highland Drive			
		Result			
Abel	Hawkins	1077 Wharf Drive			
		Result			
	Young	1077 Wharf Drive			
Result					
Abraham	Swearingin	5006 Highland Drive		26.42	26.42
		Result		26.42	26.42
	Result			26.42	26.42
Achari	Harp	4365 Indigo Ct		40.72	40.72
		Result		40.72	40.72
	Result			40.72	40.72

Upon drop, all dimensions on the rows and columns axis except the measure structure are removed from the axes. The dropped dimension is put to the opposing axis of the measure structure. Additionally; all dimension members associated to the data cell are set as filters.

❖ Note

The crosstab shown has the following dimensions on the axes:

- rows axis
 - first name
 - customer name
 - store city
- columns axis
 - measure structure
 - marital status
 - gender

			Store Sales					
			M			S		
First Name	Customer Name	Store City Gender	F	M	Result	F	M	Result
A. Catherine	Binkley	5371 Holland Circle				108.94		108.94
		Result				108.94		108.94
		Result				108.94		108.94
Aaron	Lemay	2342 Waltham St.		36.42	36.42			36.42
		Result		36.42	36.42			36.42
	Story	5179 Valley Ave		50.23	50.23			50.23
		Result		50.23	50.23			50.23
		Result		86.65	86.65			86.65
Abe	Tramel	5006 Highland Drive					58.75	58.75
		Result					58.75	58.75
		Result					58.75	58.75
Abel	Hawkins	1077 Wharf Drive				60.93		60.93
		Result				60.93		60.93
	Young	1077 Wharf Drive				37.63		37.63
		Result				37.63		37.63
		Result				98.56		98.56
Abraham	Swearengin	5006 Highland Drive		26.42	26.42			26.42
		Result		26.42	26.42			26.42
		Result		26.42	26.42			26.42
Achari	Harp	4365 Indigo Ct		40.72	40.72			40.72
		Result		40.72	40.72			40.72
		Result		40.72	40.72			40.72

Now the dimension *Store* is dropped onto the data cell *36.42*. This data cell corresponds to the following tuples (highlighted in the above image):

- Rows Tuple
 - First Name = Aaron
 - Customer Name = Lemay
 - Store City = 2342 Waltham St.
- Columns Tuple
 - Measure Structure = Store Sales
 - Marital Status = M
 - Gender = M

After the drop is completed, all these tuples are set as background filters. Additionally, *Store* was set to the rows axis, as the measure structure is on the columns axis.

If any tuple member of the associated data cell is a result member (*Result* or *Overall Result*), no background filter is set for this dimension.

Store	Store Sales
24	36.42
Overall Result	36.42

4.6 Drag and Drop in Crosstabs with Property "Display Repeated Texts"

If you set the crosstab property *Display Repeated Texts true*, this affects how drag and drop works with members. Dragging and dropping of dimensions will remain unaffected.

In a crosstab with repeated texts, all drag and drop operations are applied logically to the dimension members with the finest drilldown granularity, despite the fact that the visualization of the drag and drop operation is applied to a whole crosstab row or column, and you can start by grabbing any cell in the respective row or column. Hence, it is not possible to drag and drop the lines everywhere. Instead the system checks what is

allowed and what is not allowed, based on the finest drilldown granularity dimension member. The following examples explain this behavior:

Calendar Year/Month	Currency	OBC_VEND1	OBC_COUNT	OBC_DATE2	OBC_DATE3
JAN 2004	Euro	Arrowspace	5	1/30/04	1/5/04
JAN 2004	Euro	Bernardin SA	4	1/28/04	1/14/04
JAN 2004	Euro	C.A.S. Computer Appl			
JAN 2004	Euro	Bush Distribution	5	1/29/04	1/7/04
JAN 2004	Euro	Bush Holdings, Inc.	9	1/24/04	1/1/04
JAN 2004	Euro	C.A.S. Computer Appl	4	1/25/04	1/2/04
JAN 2004	Euro	Result	27	1/30/04	1/1/04
FEB 2004	Euro	Arrowspace	5	2/18/04	2/6/04
FEB 2004	Euro	Bernardin SA	4	2/12/04	2/2/04
FEB 2004	Euro	Bush Distribution	3	2/21/04	2/14/04
FEB 2004	Euro	Bush Holdings, Inc.	2	2/23/04	2/2/04
FEB 2004	Euro	C.A.S. Computer Appl	2	2/26/04	2/6/04

To start drag and drop, the user can grab and start dragging any cell in the row, for example “JAN 2004” or “Euro” or “C.A.S Computer Appl”. The drag visualization shows the whole line, but the drag and drop operation is effectively applied to the member of “OBC_VEND1” because this is the finest granularity dimension on the rows in the given drilldown. Therefore the user is actually logically dragging “C.A.S Computer Appl”.

As a result, the line cannot be dragged and dropped somewhere outside of the “JAN 2004” block of “Calendar Year/Month”. Member reordering of OBC_VEND1 members is only possible within this block. This behavior is very similar to the behavior you would observe if the property *Display Repeated Texts* would be set to *false*.

In fact, using the property *Display Repeated Texts* in the crosstab is even more restrictive when using drag and drop for members. The following example, show the same crosstab as in the example above but with the property *Display Repeated Texts* set to *false*:

Calendar Year/Month	Currency	OBC_VEND1	OBC_COUNT	OBC_DATE2	OBC_DATE3
JAN 2004	Euro	Arrowspace	5	1/30/04	1/5/04
		Bernardin SA	4	1/28/04	1/14/04
		Bush Distribution	5	1/29/04	1/7/04
		Bush Holdings, Inc.	9	1/24/04	1/1/04
		C.A.S. Computer Appl	4	1/25/04	1/2/04
		Result	27	1/30/04	1/1/04
FEB 2004	Euro	Arrowspace	5	2/18/04	2/6/04
		Bernardin SA	4	2/12/04	2/2/04
		Bush Distribution	3	2/21/04	2/14/04
		Bush Holdings, Inc.	2	2/23/04	2/2/04
		C.A.S. Computer Appl	2	2/26/04	2/6/04

In this example, the “JAN 2004” member can be exchanged with the “FEB 2004” member because the drag and drop operation operates on the whole block, which these members span in the dimensions to the right of the crosstab.

Since the drag and drop operation does not operate on a selection in the crosstab, it is not possible to achieve this behaviour as described above when the property *Display Repeated Texts* is set to *true*. This is because there would only be a single row drag and drop action that is applied to a OBC_VEND1 member, and dragging and dropping a single “JAN 2004” row between multiple “FEB 2004” rows would result in an invalid state.

5 Changing your Dashboard Layout

You can change the layout of a dashboard created for you by your application designer.

Your application designer can enable a certain area of an application to be editable by you. This allows you to personalize your own dashboard layout. From a pre-configured list of categorized components, you can drag and drop components into this editable area. Using the context menu items of each component, you can cut, copy, paste, delete, move into the foreground or background. You can add color to some components.

5.1 Context Menu Items for Changing your Dashboard Layout

Using the Context Menu

You can use the following context menu functions to change the layout of a dashboard created for you by your application designer:

Context menu functions for changing your dashboard layout.

- cut
Use *Cut* to cut an element of the application in order to paste it elsewhere, or to remove it.
- copy
Use *Copy* to copy an instance of an element of the application to paste it elsewhere.
- send to back
Use *Send to Back* to position an element of the application behind another element.
- bring to front
Use *Bring to Front* to position an element of the application in front of another element.
- delete
Use *Delete* to remove an element from the application.
- color
Use *Color* to fill in the color of an element, for example, a shape.
- line color
Use *Line Color* to select a color for the outline of an element, for example, a shape.

6 Working with Bookmarks

While you are interacting with your Lumira Designer applications and analysing your data, you can also take a snapshot of all or part of your application. This snapshot can then be reused by you in another application. It can also be shared with colleagues for use in their applications. You can also reuse bookmarks created and made available by other users. Your application designer can script your application in such a way that it allows you to create your own snapshots or bookmarks. Creating a bookmark serializes the state of your application at a certain point in time. You can decide to create a bookmark of your entire analysis application or only a selected part. In fact you can configure your bookmark to contain any of the components used in your analysis application. You can define a title and a description when saving a bookmark. You can also save your bookmark to a folder and group of your choice. You can select whether your bookmark remains private to you or globally available to others.

Related Information

[Defining a Bookmark \[page 35\]](#)

[Assigning Bookmarks to a Folder \[page 35\]](#)

[Saving a Bookmark \[page 34\]](#)

6.1 Saving a Bookmark

Context

You wish to save a bookmark of your entire analysis application or a part of your analysis application.

i Note

Bookmarks can also be saved in local mode for testing and development purposes.

Procedure

Within the application, select the component that calls the save bookmark function.

6.2 Defining a Bookmark

Context

You want to define the following properties of your bookmark:

- title
- description
- folder
- group

To define your bookmark, follow these steps:

Procedure

1. Open the analysis application you wish to bookmark.
2. Within the application, select the component to apply a title to your bookmark. If you do not define a title, then your bookmark title is autogenerated.
3. Select the component to add a description to your bookmark. The bookmark description will remain blank if you do not enter one.
4. Select the component to set the folder on the platform to which your bookmark is to be saved.
5. Select the component to assign your bookmark to a group.

6.3 Assigning Bookmarks to a Folder

Context

You can save your own newly created bookmarks to a folder within a tree structure, which allows you or other users to re-use your bookmarks. It is essential to have access rights to that particular folder in order to access the bookmarks it contains.

Procedure

Select the component scripted to save your selected bookmark to a folder from within the tree structure.

If you do not have access rights to a particular folder, you will not see it appear as an option for you to select. If you have view rights only, you will be able to see the folder, but not overwrite the folder content in any way.

Your bookmark is saved to the folder tree structure and to the corresponding folder on the platform.

6.4 Deleting Bookmarks

Context

You want to delete one or all of your bookmarks within your analysis application.

i Note

You cannot delete bookmarks created by other application users.

Procedure

1. Within the application, select the bookmark you want to delete.
2. Select the component to call the delete function.

6.5 Listing Bookmarks

Context

You want to list all the bookmarks available to you in your analysis application.

Procedure

Within the application, select the component to call the list function.

All your available bookmarks will be listed in your application.

6.6 Loading a Bookmark Using a Url

Context

Using a Url in the browser bar, you wish to load bookmarks shared with you by other application users.

Procedure

Paste the Url into your native browser bar while the Lumira Designer application is running.

You will be presented with the shared analysis application.

6.7 Loading a Bookmark Using Scripting

Context

You wish to load a bookmark from within your analysis application.

Procedure

Within the application, select the component that calls the load function.

The bookmark will be loaded within your application.

6.8 Personalization

Context

You are in an analysis application and you wish to personalize or save the state of this analysis application so that later you can restore that default state when reloading the application.

Procedure

To set personalization, select the component that allows you to personalize your application.

7 Working with Charts

You can interact with how your data is displayed in your application in a number of ways. You can change the chart type by selecting from a collection dropdown chart menus. You can use the context menu to edit the appearance of your chart, for example, displaying your chart vertically or horizontally. You can even manipulate the data which is bound to the charts in your application. Any changes you make are reflected immediately in the chart area.

Related Information

[Using the Context Menu \[page 38\]](#)

[Changing your Chart Type \[page 39\]](#)

7.1 Using the Context Menu

To enable you to navigate and analyse data when running your application, you can access the following context menu functions available in the chart area:

Context menu functions for charts

- horizontal
Use *Horizontal* to display your chart horizontally.
- vertical
Use *Vertical* to display your chart vertically.
- normal stacking
Use *Normal Stacking* to stack the data series on top of each other in order.
- 100% stacking
Use *100% Stacking* to fill the plot area and draw each point of data with a relative percentage to all the points in the same category.
- show title
Use *Show Title* to display a title on your chart.
- show legend
Use *Show Legend* to display a legend on your chart.
- show data labels
Use *Show Data Labels* to display data labels in your chart.
- show gridlines
Use *Show Gridlines* to display gridlines in your chart.

- use measures as a dimension
Use [Use Measures as a Dimension](#), if you want to select where measures appear in your chart, other than in the legend.
- set axis scale
Use [Set Axis Scale](#), if you want to change the axis scale from automatic to fixed.
- enable ad-hoc data comparison
Use [Enable Ad-hoc Data Comparison](#), to compare the data from two or more data points on a bar, column or line chart.
- add trendline
Use [Add Trendline](#), to show data trends in a bar, column, line, scatter, bubble, time line, time scatter or time bubble chart. The trendline is calculated based on the visualized data.
- edit trendline setting
Use [Edit Trendline Setting](#), to extend a trendline beyond the actual data to help predict future values.
- remove trendline
Use [Remove Trendline](#), to remove all trendlines from the chart.
- reference lines
Use [Reference Lines](#), to add a fixed or dynamic reference line to an axis in the chart.
- manage reference lines
Use [Manage Reference Lines](#), to decide which reference lines to display in the chart, to add or remove reference lines, or to edit existing reference lines.
- change chart type for series
Use [Change Chart Type for Series](#) to change the type of chart type for the current series.
- assign measure to axis
Use [Assign Measure to Axis](#), if you want to assign the measure to the Primary Axis or Secondary Axis.

i Note

The context menu also displays several other analytical actions from other types of components, such as the [Crosstab](#) or [Spreadsheet](#) components. The context menu items displayed depend on the element selected.

7.2 Changing your Chart Type

Context

You want to choose a different type of chart to change how your data is displayed.

Procedure

Within the chart palette, select a different chart type from one of the chart groups. You can use the dropdown arrow to select, for example, a bar chart or a bubble chart.

Your chart type changes accordingly, to render your data in a different way.

8 Working with Comments

You can add and view comments in your Lumira document.

With functionality added by the application designer, you can create and view comments in Lumira documents.

9 Working with the Filter Line

9.1 Adding a Filter to the Filter Line

Context

Your application contains a *Filter Line* component, which is linked to your assigned data source.

Procedure

1. Select the + icon to the left of the *Filter Line*.
You see the list of dimensions that you can filter on.
2. Select one of the listed dimensions.
A dialog box appears with the members associated with the selected dimension.
3. Select from the list (*Select from List*) the dimension members you want to use for the filter or type in the name of the member.

i Note

In this dialog box you can also define conditions for the dimension members. See [Defining Conditions for Dimension Members \[page 44\]](#).

4. Click on the *OK* button in the dialog box. The filter is automatically applied to the crosstab. In the filter line the filter on the selected dimension and member or members is added to the row of filters where you can easily remove them again.

9.2 Changing a Filter in the Filter Line

Context

You want to make a change to an existing filter within your *Filter Line*.

Procedure

1. Double-click the filter you want to change.

A dialog appears with the name of the filter.

2. Make the required changes within the [Select from List](#) or [Define Conditions](#) links, and click *OK*.

The change you made is applied automatically to the [Filter Line](#) and to your data source (in the crosstab).

9.3 Removing a Filter from the Filter Line

Context

There are filters listed in your [Filter Line](#) and you want to remove them.

Procedure

Select the *X* icon to the top right of the filter you want to remove.

The filter is removed from the [Filter Line](#) and no longer applied to your data source.

10 Working with the Filter Panel

10.1 Filtering Data in the Crosstab using the Filter Panel

Dependant on the mode your application designer has defined for the filter panel (*Filtering* or *Filtering and Navigation*), the UI of the filter panel varies: You can either use it just for filtering data or for both filtering data and adding or removing dimensions from rows or columns of the result set by using the corresponding buttons.

Prerequisites

You are working in an application that contains a crosstab and a filter panel.

Context

In the filter panel, all available dimensions and measures are listed

Procedure

1. To set a filter, select one of the listed dimensions and click on the value help symbol to the right of the dimension name. A dialog box opens with the name of the dimension.
2. Select from the list (*Select from List*) the dimension members you want to use for the filter or type in the name of the member.

i Note

In this dialog box you can also define conditions for the dimension members.

3. Click on the *OK* button in the dialog box. The filter is automatically applied to the crosstab. In the filter panel all your selections for filtering are displayed where you can easily remove them again.

10.1.1 Defining Conditions for Dimension Members

In the filter panel you can define conditions for dimension members.

Procedure

1. In the filter panel, click the value help symbol to the right of the dimension name.
2. In the dialog box that opens, select from the list (*Select from List*) the dimension members you want to use for the filter or type in the name of the member.
3. Under *Define Conditions*, choose to define either an *Including* or an *Excluding* condition and go on working in the respective area.
4. Type in the key for the dimension member, choose the operator for the condition and type in the values for the condition.
5. Optional: If you want to define several conditions, click on the plus sign next to the defined condition and repeat step 4.
6. Click on the *OK* button in the dialog box.

Results

The filter is automatically applied to the crosstab. In the filter panel, all your selections for filtering are displayed where you can easily remove them if necessary.

10.2 Assigning Dimensions to Rows or Columns of the Result Set

Procedure

Choose either the rows symbol or the columns symbol on the left of the chosen dimension in the filter panel. The changes are automatically displayed in the crosstab.

11 Working with Maps

11.1 Interacting with Maps

When your analysis application contains a map, you can interact with data from multiple data sources spread across different layers of the map. The map can contain four different types of layers. The layer types are choropleth (polygons, multi-polygons, lines, and multi-lines), bubble charts, marker and pie charts. You can interact with the geo map in the following ways:

Drilldown into different layers

You can reveal different layers of data in you map. To do this, you simply select the component scripted by the application designer to allow you drill down into the layers of the map.

Change the basemap

You can select a different basemap while running the application. To do this, select the appropriate component scripted by the application designer.

Center the map

You can select a component that allows you to center the map around the data contained in the layer you have selected. The area containing that data then becomes the center of the map.

Multiple Selection

You can select multiple sets of data points on the map.

Pan and zoom

You can use the mouse and/or the default zoom buttons to pan across the entire map. You can also zoom in and out on the selected area on the map.

Tooltips and legends

As you hover over different areas on the map, the tooltip changes to display the geo-specific dimension and its corresponding measure value. If the layers have been scripted to show the legend, this information is also displayed in the legend.

12 Working with Scrolling

You can scroll horizontally, vertically, or both in certain areas of your application.

Scrolling within your application allows you to view all items within a particular area, as designed by the application designer.

13 Exporting an Application

13.1 Exporting to Analysis Office

You can export a data source view to SAP Analysis for Microsoft Office

Context

You wish to export the crosstabs in your application to SAP Analysis for Microsoft Office.

Procedure

Select the component to call the export to Analysis functionality.

Your crosstab is exported to SAP Analysis for Microsoft Office.

13.2 Exporting to CSV

You can export data sources from Lumira Designer to CSV file format.

Context

You wish to export data sources in your application to CSV file format.

Procedure

1. Select the component that allows you to choose the CSV separator you'd like to have in your CSV file. You can choose from one of the following: comma, tab, semicolon, space.
2. Select the component to call the export to CSV functionality.

Your data sources is exported to CSV file format.

13.3 Exporting to Excel

Context

You wish to export the crosstabs or data sources in your application to Microsoft Excel.

Procedure

Select the component to call the export to Excel functionality.

Your crosstab or data source is exported to Microsoft Excel.

13.4 Exporting a View to PDF

Context

A View export to PDF exports your application as it appears in the browser (or within the scrollable area).

Procedure

To export a View version of your application to PDF, select the component that calls the export View to PDF functionality.

Only the portion of the application within the browser (or within the scrollable area) is exported to PDF.

13.5 Exporting to PDF - Report Style

Context

You can export to PDF a report style export of all crosstabs and charts native to Lumira Designer, and custom SDK components in your application.

Procedure

To export to PDF a report style version of your application, select the component that calls the export to PDF (Report Style) functionality.

In a report style export to PDF, specific components contained within in the application are exported in the following specific ways:

- *Chart* and *Map* components are exported, one component per page.
- Most SDK components export to PDF.
- Crosstab components can be exported to one PDF page, or exported across multiple pages, depending on the size of the Crosstab when compared to the PDF page width.

13.6 Exporting to PDF - Panel View

Context

You wish to export the contents of a panel or an array of panels in your application.

Procedure

Select the component that calls the export the contents of a panel or array of panels functionality.

Each exported panel component is exported on a page of its own in the PDF output.

14 Working with Planning Applications

14.1 Entering Data in the Crosstab

In order to have input ready cells or rows in a crosstab, the application designer of your application has assigned an input-enabled data source to the crosstab. Whether input ready cells are displayed also depends on the model in the SAP BW backend system and the initial view of the data source.

Input ready cells display an edit field which, when clicked on, allows you to enter text. When you press or leave the cell by navigating away from it, the system validates the input:

- If the input is invalid, the relevant input area of the cell is highlighted.
- If the input is valid, the entered value is formatted for the relevant data type (for example, a unit is added, the decimal display format is changed, ...).

Besides selecting a cell by clicking it, you can also use the tab key to move forward from cell to cell in a given row. If you have modified any value in an input ready cell, the first press of validates the input, and the second press of moves the focus to the next cell.

i Note

It is not possible to delete data in input ready cells. When you enter a blank (empty) input, the cell is reset to its initial value. In case you enter a 0 (zero) value, if the data type allows this, the 0 is set as the new cell value.

14.2 Locking Cells

Context

You can lock input-ready crosstab cells and total cells in planning applications. In addition, you can also lock all data cells within a selected row or column header in the crosstab. A locked cell cannot be changed manually when the crosstab is recalculated. The cells are locked for the current user session only. You can also unlock the cells during the session.

Procedure

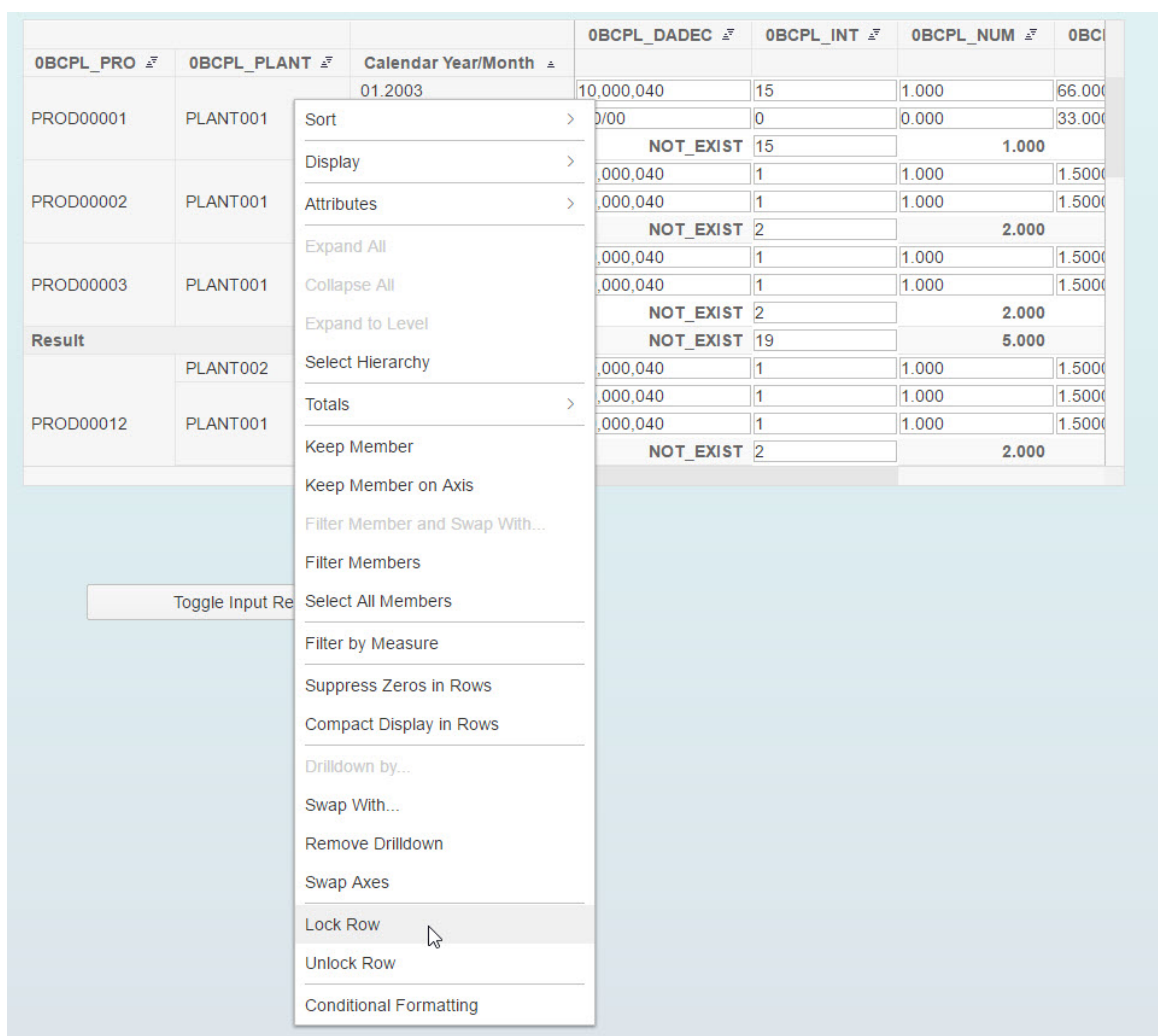
1. Decide if you want to lock a single data cell or several data cells within a selected tuple.
 - Select the crosstab cell you want to lock.

- Select the header row or header column containing the data cells that you want to lock. If you click on a cell that spans multiple rows, all contained rows will be locked for entry.

The selected cells must be input-enabled and must not have been changed since the last recalculation.

2. Open the context menu of the selected cell or row or column header.

- Choose Lock Cell for single data cells.
- Choose Lock Row/Lock Column for data cells within the row or column header.
- If the drilldown state of the crosstab is changed (for example, by swapping the axis) the locks will be kept on the cells and - in the case of row/header locking - not kept on the rows/headers. For example, if row 1 (column1) was locked before the drilldown was changed, there is no guarantee that row 1 (column 1) will still be locked after the change, as the cells that were previously in that row (column) could now be in a new position.
- If you want to unlock the cell/row header/column header, select it and open the context menu. You can now deselect the menu entry *Lock cell* or choose *Unlock Row/Unlock Column*.



Results

The selected cells are locked for changes and are displayed with a lock icon .



0BCPL_PRO	0BCPL_PLANT	Calendar Year/Month	0BCPL_DADEC	0BCPL_INT	0BCPL_NUM	0BCI
PROD00001	PLANT001	01.2003	10,000,040	15	1.000	
		02.2003	0/0/00	0	0.000	
		Result	NOT_EXIST	15	1.000	
PROD00002	PLANT001	01.2003	10,000,040	1	1.000	1.500
		02.2003	10,000,040	1	1.000	1.500
		Result	NOT_EXIST	2	2.000	
PROD00003	PLANT001	01.2003	10,000,040	1	1.000	1.500
		02.2003	10,000,040	1	1.000	1.500
		Result	NOT_EXIST	2	2.000	
Result			NOT_EXIST	19	5.000	
PROD00012	PLANT002	01.2003	10,000,040	1	1.000	1.500
	PLANT001	01.2003	10,000,040	1	1.000	1.500
		02.2003	10,000,040	1	1.000	1.500
		Result	NOT_EXIST	2	2.000	

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