



# ARIS Process Performance Manager WIDGETS FOR MASHZONE NEXTGEN

Version 10.2

April 2018

This document applies to PPM Version 10.2 and to all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

Copyright © 2000 - 2018 Software AG, Darmstadt, Germany and/or Software AG USA Inc., Reston, VA, USA, and/or its subsidiaries and/or its affiliates and/or their licensors.

The name Software AG and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA Inc. and/or its subsidiaries and/or its affiliates and/or their licensors. Other company and product names mentioned herein may be trademarks of their respective owners.

Detailed information on trademarks and patents owned by Software AG and/or its subsidiaries is located at <http://softwareag.com/licenses>.

Use of this software is subject to adherence to Software AG's licensing conditions and terms. These terms are part of the product documentation, located at <http://softwareag.com/licenses> and/or in the root installation directory of the licensed product(s).

This software may include portions of third-party products. For third-party copyright notices, license terms, additional rights or restrictions, please refer to "License Texts, Copyright Notices and Disclaimers of Third Party Products". For certain specific third-party license restrictions, please refer to section E of the Legal Notices available under "License Terms and Conditions for Use of Software AG Products / Copyright and Trademark Notices of Software AG Products". These documents are part of the product documentation, located at <http://softwareag.com/licenses> and/or in the root installation directory of the licensed product(s).

## Contents

1	General .....	1
2	Install custom components .....	2
3	Update custom components .....	3
4	Insert custom component in a dashboard .....	4
5	Function flow component .....	5
5.1	What is a function flow diagram? .....	5
5.2	Assign data sources .....	6
5.2.1	Assign data columns of a PPM context .....	7
5.2.1.1	Column matching .....	8
5.2.2	Settings .....	8
5.3	Specify diagram settings .....	10
5.4	Set selections and filters .....	12
5.5	How to use the function flow diagram .....	13
5.6	How to display function measures .....	14
6	Start PPM client component .....	17
6.1	Insert text .....	17
6.2	Specify component settings .....	17
6.3	SAML Authentication .....	18
7	PPM variants component .....	20
7.1	What is the PPM variants component? .....	20
7.2	Specify diagram settings .....	21
7.3	Assign data sources .....	22
7.3.1	Assign data columns of a PPM context .....	23
7.3.1.1	Column matching .....	24
7.4	Settings .....	24
7.5	Set selections and filters .....	25
8	Appendix .....	27
8.1	What is the PPM context? .....	27
8.1.1	Automatic filtering .....	27

## 1 General

This documentation gives an overview of the custom PPM components provided for MashZone NextGen. The manual describes how you can configure and use the components in MashZone NextGen.

In MashZone NextGen you are able to configure and use the custom components analogous to the already available dashboard components. For example, you are able to set selections or to use the component as a filter component.

For general use of MashZone NextGen dashboards see the MashZone NextGen Online Help.

## 2 Install custom components

You must install custom components manually in MashZone NextGen.

The installation requires a component zip file which is located in the PPM installation directory.

<PPM

```
installation>\ppm\server\bin\work\data_ppm\MashZone_NextGen_BA\customWidgets\<WidgetName.zip>
```

### Procedure

1. Copy the relevant component file in the **customWidgets** folder of your MashZone NextGen installation and unpack the **zip** file.

<MashZone NextGen

```
installation>\apache-tomcat\webapps\mashzone\hub\dashboard\widgets\customWidgets
```

This creates a custom widget subfolder, for example, **functionFlowWidget**.

2. Restart the MashZone NextGen server.
  - a. Open the **Software AG/Stop servers** program folder.
  - b. Click **Stop MashZone NextGen Server**.
  - c. Open the **Software AG/Start servers** program folder.
  - d. Click **Start MashZone NextGen Server**.

The PPM custom component is now available in MashZone NextGen.

### 3 Update custom components

Custom components are not updated by the normal update process. You must update the components manually.

#### Procedure

1. Delete the folder of the custom component from the MashZone NextGen installation directory.  
`<MashZone NextGen installation>\apache-tomcat\webapps\mashzone\hub\dashboard\widgets\customWidgets\<WidgetName>`
2. Install the updated component version.
3. Update the style template.
  - a. Open a dashboard in MashZone NextGen.
  - b. Click **Manage** > **Change style template** in the dashboard main menu.
  - c. Click **Update**.
  - d. Click **OK**.

Detailed information on how to update style templates can be found in the MashZone NextGen online help.

Your custom component for MashZone NextGen is updated.

## 4 Insert custom component in a dashboard

You can insert a custom component as a component in your MashZone NextGen dashboards.


For detailed information on how to use the MashZone NextGen dashboard editor, please see the MashZone NextGen Online Help.

In case there is more than one PPM custom component installed, all PPM custom components are located in one horizontal row in the component bar of MashZone NextGen. Only one PPM custom component is visible by default, all other PPM custom components are displayed when hovering over the default component.

### Prerequisite

You have installed the custom component in MashZone NextGen (Page 2).

### Procedure

1. Start MashZone NextGen.
2. Open or create a dashboard in the dashboard editor.
3. Click the component button, for example,  **Function Flow Widget**. The button is located at the left hand side of the dashboard editor.

The component is inserted as blank box in your dashboard.

## 5 Function flow component

The function flow component adds the PPM function flow diagram (Page 5) as a further dashboard component to MashZone NextGen.

For general use of MashZone NextGen dashboards and components see the MashZone NextGen Online Help.

### 5.1 What is a function flow diagram?

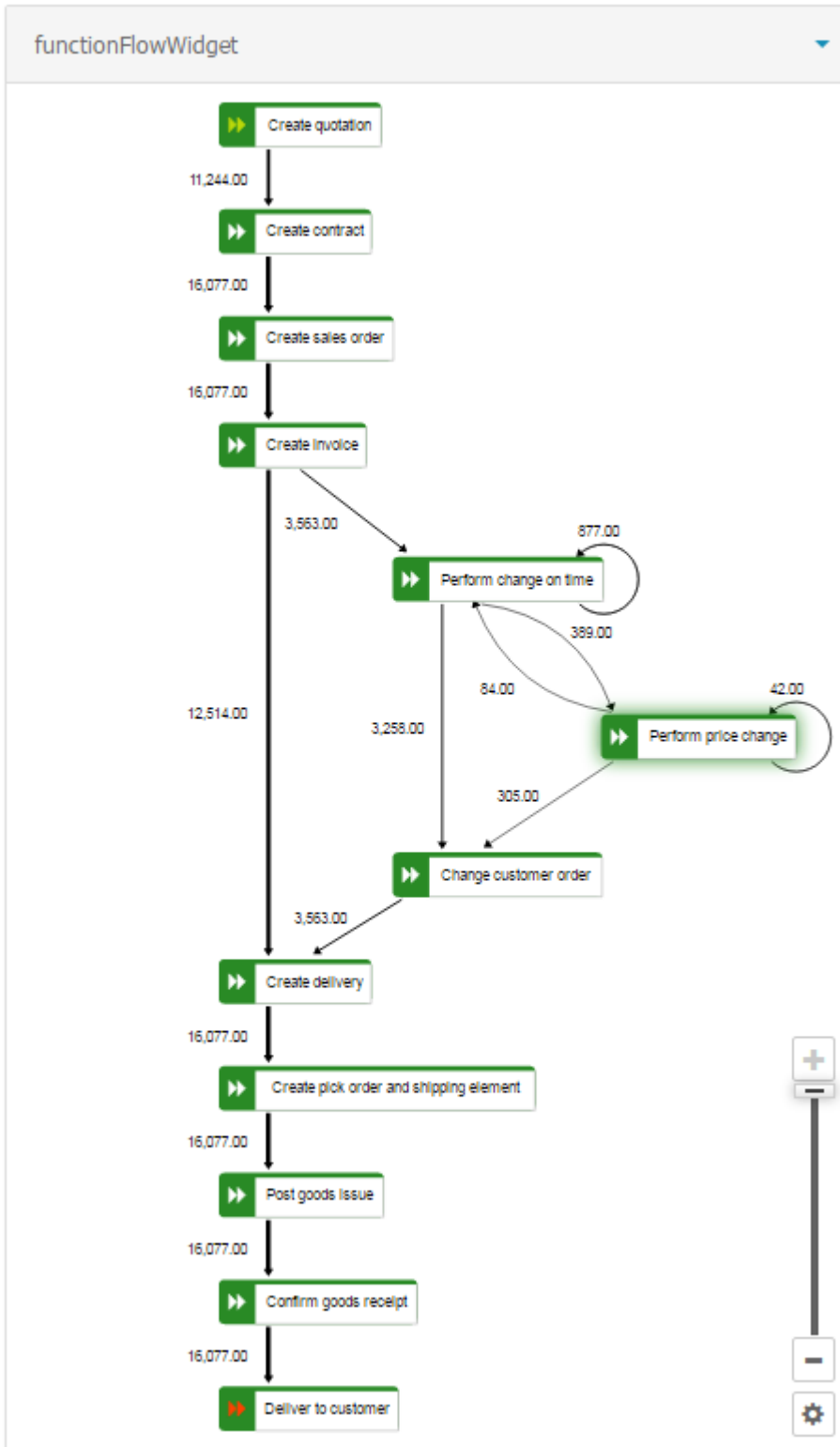
The **function flow diagram** enables you to analyze the sequence of activities within your business processes. Using the function flow diagram you are able to clearly display and evaluate the process structure and the relationship between the activities.

A function flow diagram begins with a start function that is indicated by a green symbol and has only outgoing connections (except self loops). The end function has only incoming connections (except self loops) and is indicated by a red symbol. All other functions have white symbols and have at least one incoming and one outgoing connection.

The weight of a connection is defined by its relevance value.




### Example



## 5.2 Assign data sources

Before you can display content in a dashboard component, you must first assign a data source to this component. You can select PPM as data source or any desired data source available in MashZone NextGen.

### Procedure

1. Click the **Function flow** component in the dashboard. The relevant properties dialog is displayed.
2. Click  **Assign data** to edit the data source assignment. The **Assign data (1/2)** dialog is displayed.  
Here you can select a data source and specify your data source settings.
3. Click **Next**.
4. The **Assign data (2/2)** dialog is displayed.  
Here you can assign the data source columns to the individual component elements. See Settings (Page 8) for details.
5. Assign the data columns to the component elements using drag and drop.
6. Click the assigned columns to specify the columns settings. See Settings (Page 8) for details.
7. Click **OK** to save your settings.


The component shows a function flow diagram based on the data of the assigned data source.

## 5.2.1 Assign data columns of a PPM context

If you have configured a PPM context (Page 27) for your dashboard, you must only assign the data columns provided by the PPM context to the elements of the dashboard components (**Assign data (2/2)** dialog). You do not have to assign a data source to each component first (**Assign data (1/2)** dialog). The PPM context is automatically assigned to all components in the dashboard that have no data source assigned.

By default, the PPM context provides all available data columns of the PPM system. For the **Function Flow** component, the columns are automatically filtered, and the PPM context provides all relevant data columns.

### Procedure

1. Click the **Function flow** component on the dashboard. The relevant properties dialog is displayed.
2. Click  **Assign data** to edit the data source assignment. The **Assign data (2/2)** dialog is displayed.  
Here you can assign the data source columns to the individual component elements. For details, see chapter Settings (Page 8).
3. Assign the data columns of the PPM context to the component elements using drag and drop.
4. Click the assigned columns to specify the columns settings. For details, see chapter Settings (Page 8).
5. Click **OK** to save your settings.

The component shows a function flow diagram based on the data of the assigned data source.

If you do not want to use context-based data columns, you can assign any other data source provided. You can change the data source by clicking **Use other data**. The **Assign data (1/2)** dialog opens. Here you can assign any data source provided. If you assign another data source,

you cannot reassign the PPM context to the dashboard component. For details, see chapter Assign data sources (Page 6).

If required, you can adjust the list of data columns provided for the data columns assignment. Click **Edit PPM context** to edit the data columns specified in the PPM context.

For details on using and configuring a PPM context, see the MashZone NextGen online help.

### 5.2.1.1 Column matching

To facilitate the assignment of the source columns to the component elements, the names of the source columns are automatically matched to the default names of the columns in the standard customizing (in English and German only). The matching is only done if there are no columns already assigned to some component elements.

The following elements of the **Function flow** component are matched (the comparison is case insensitive):

- Start function
  - Contains "Function (Start)"
  - Contains "(Start)"
- End function
  - Contains "Function (Target)"
  - Contains "(Target)"
- Function names
  - Contains "Function (F"
  - Is exactly "Function"
- Relevance column

If there is no matching source column for a component element, the component element stays unassigned, and you must manually assign the column to be used.

### 5.2.2 Settings

The function flow diagram requires respectively a column for the **Start function**, **End function** and the **Relevance value**. Additionally, you can define further connection values in the optional list field **Additional connection values**. These values are available in the settings menu in the function flow diagram and the value order corresponds to the order in the list field. The fields **Function names** and **Function measure value** are used to display function measures in the function flow diagram (Page 14).

By default, you can change the **Display name** and the **Format** of the relevance and connection values. The **Display name** is not editable for context-based data columns. By changing the **Sorting** of the relevance column you can set the assessment of the connections. If you select **Ascending**, high values are considered positive (for example, revenue). If you select **Descending**, low values are considered positive (for example, costs).

## Option list


Field	Description
Start function	<p>Contains the column of the start nodes. These nodes are used as a starting point for the connections and a connection is drawn to the end node.</p> <p>This field is required and only allows unique text columns. If the field is empty, no graph is displayed.</p>
End function	<p>Contains the column of the end nodes. These nodes are used as a target point for the connections and a connection is drawn from the start node to the end node.</p> <p>This field is required and only allows unique text columns. If the field is empty, no graph is displayed.</p>
Relevance value	<p>Contains the column of the relevance values. The relevance value calculates the thickness of the connections, if enabled. The sorting of the relevance can be changed via a property.</p> <p>This field is required and only allows numeric columns which are not already used as additional connection value. If the field is not filled, no graph is shown.</p>
Additional connection values	<p>Can be used to define additional values that can be displayed on connections. The order determines the order in the later selection box. The box can be used to switch between these values.</p> <p>This field is optional and only allows numeric columns which are not already used as relevance value.</p>
Function names	<p>Contains the column of all function names. It has to be a column other than the start or end function because the start function misses nodes without outgoing connections &amp; end function misses nodes without incoming connections and therefore not all required function names are contained in these columns.</p> <p>This field is optional and only allows numeric columns even if they are used as relevance value or additional connection value.</p> <p>It is used to display function measures.</p>

Field	Description
Function measure value	Contains the column of the function measure values. The data of the column is displayed as a function measure within the function boxes. It is only possible to display one value for the function measure.  Optional,  Numeric columns only,  It is used to display function measures.

### 5.3 Specify diagram settings

You can specify the component display settings in the component properties dialog.

#### Procedure

1. Click the inserted **Function Flow Widget** component. The relevant properties dialog is displayed.
2. Specify your settings. See the display options list below. For more details see the MashZone NextGen Online Help.
3. Click the  **Interactive mode** icon to activate the interactive mode. In the interactive mode you are able to edit the diagram layout. See the display options list below.

The function flow diagram is layouted automatically. But you can change the diagram layout in the interactive mode manually.

Your settings are applied.

#### Display Options

General Options	Description
Name	Optional component name.
Container	<b>Show/Hide header:</b> Shows/Hides the header as well as the title of the component, and resizes the content of the container. Click the icon again to hide/show the header.  <b>Show/Hide border:</b> Shows/Hides the outline of the component container. Click the icon again to hide/show the outline.
Auto refresh	Specifies the automatic data retrieval for the component.

Specific function flow component options	Description
Interactive mode	<p>Activates the interactive mode. The interactive mode (☒) enables you to perform the following actions.</p> <ul style="list-style-type: none"> <li>- You can resize the diagram using the mouse wheel.</li> <li>- You can move the entire diagram or the individual function symbols using drag and drop. To move the complete graph, click an empty space within the component and hold down the mouse button. You can move the graph until you release the mouse button.</li> </ul> <p>You can select a connection value. You can select a value in the component <b>Settings</b> menu if you have set at least one value using the <b>Additional connection values</b> option in the <b>Assign data (2/2)</b> dialog. See Assign data sources (Page 6).</p> <ul style="list-style-type: none"> <li>- You can enable the magnifier. Click <b>Settings</b> and select <b>Enable magnifier</b>.</li> <li>- You can modify the relevance slider view and the relevance slider value. The slider value is not saved in the dashboard</li> </ul>
Layout	<b>Reset initial:</b> Restores the initial diagram layout
Zoom	<b>Reset:</b> Restores the initial diagram size
Relevance slider	Enables the relevance slider in the dashboard view and edit mode.

Specific function flow component options	Description
Connection labels	Displays the connection values in the diagram. The connection values defined in the data assignment (Page 6) can be displayed or hidden beside the connections. By default, the relevance values are displayed beside the connections. If an additional connection value is defined, it is displayed as a the connection value instead. If more than one additional connection value is defined, a drop-down menu is provided in the settings menu for you to select the values that are to be displayed beside the connections. By default, the first additional connection value is displayed.
Connection weight	Displays the connection weight in the diagram. The connection weight is indicated by the connection thickness.

## 5.4 Set selections and filters

The function flow component supports the filter and selection functionalities of MashZone NextGen dashboards. By setting filters and selections you can define relations and interactions between several dashboard components.

The function flow component can be used to set a selection or a filter in other dashboard components. Furthermore single nodes or connections of the component can be selected by other components. Additionally, the entire component can be filtered by other components.

Details on how to use filters and selections can be found in the MashZone NextGen Online Help. For setting selections and using coordinates in other components please note the following hints:

- The **NodeName** coordinate contains the node name. This coordinate only contains a value when a node is selected.
- There is a coordinate for the function measure value configured. The name of the coordinate corresponds to the relevant column name. This coordinate only contains a value when a node is selected.
- The **StartNode** and **EndNode** contain the names of the respective connections. The **StartNode** coordinate contains the name of the node where the connection starts and the **EndNode** coordinate contains the name of the node where the connection ends. These coordinates only contain values when a connection is selected.

- There is one coordinate for every connection value configured. And the name of a coordinate corresponds to the relevant column name. These coordinates only contain values when a connection is selected.
- The **SliderValue** coordinate contains the current filter value of the relevance slider control. This value is updated after changes to the slider itself or by pressing any of the two slider buttons. If the **SliderValue** coordinate is set, the nodes and connections are filtered accordingly. The values of the other connections are only changed if the currently selected node or connection is no longer visible (in which case the selection is removed).

Nodes can be selected by setting the **NodeName** coordinate or by setting the function measure coordinate. It is possible that the selection can be ambiguously assigned, for example, there is more than one node with the same value. In such a case a node is randomly selected.

Connections can be selected by setting the **StartNode**, **EndNode** or connection value coordinate or an arbitrary combination of these coordinates. Thereby not all coordinates need to contain values. It is possible that the selection can be ambiguously assigned, for example, there are more than one connection with the same value or more than one connection with the same start node. In such a case a connection is randomly selected.

The **SliderValue** coordinate can be set from outside and then the corresponding value is set on the slider and the connections and nodes are displayed or hidden accordingly.





## 5.5 How to use the function flow diagram

In the dashboard view mode of Business Analytics you are able to use the function flow diagram interactively.

The view mode enables you

- to select individual functions and connections, for example, for filtering other components. Selected elements are highlighted. To select a connection you can click the connection or the relevant connection value.
- to display connection values. If connection values are displayed, hovering over connections shows a tooltip which contains the column name of the shown connection value together with the corresponding value for this connection.
- to display function labels and function measures. Function name and measure value are displayed within the function symbol. A tooltip is shown when hovering over the function symbol which contains the column name of the function measure value together with the corresponding value for this function. If function measures are defined but there are no values available for a specific function, no value is shown.
- to move the entire diagram or the individual function symbols via drag and drop. To move the complete diagram, click on an empty space within the component and hold down the mouse button. Now the graph can be moved until you release the mouse button.
- to resize the diagram via mouse wheel. The diagram can be zoomed in or out related to the mouse pointer position.



- to select the connection values displayed. You can select the values in the component settings menu. The drop-down menu is provided if you have set at least one **Additional connection values** in the **Assign data (2/2)** dialog. See Assign data sources (Page 6).
- to enable the magnifier. Click the  **Settings** icon and select **Enable magnifier**. The magnifier is enabled by default. The magnifier enlarges the diagram elements on mouse over.
- to display the relevance slider. Click the  **Settings** icon and select **Show slider**. The relevance slider is enabled by default. If you deactivate the **Show slider** option the slider is hidden and only the plus and minus buttons are only displayed. The slider is also hidden if there is not enough space in the graph.
  - The relevance slider filters the relevance values in the graph based on the relevance value assigned to the connections. See Assign data sources (Page 6). The top and the bottom values are based on the configured sorting of the relevance column. The top value is set to 100% and the bottom value only shows the connections with the smallest value.
  - Move the mouse pointer over the plus and minus button or over the slider to display a tooltip with information about the connection values filtered.
  - The relevance slider is not supported if the component is used as a global component on more than one tab.
- to reset the layout. Click the  **Settings** icon and select **Reset layout**.
- to reset the zoom factor. Click the  **Settings** icon and select **Reset zoom**.

For general use of MashZone NextGen dashboards see the MashZone NextGen Online Help.

## 5.6 How to display function measures

The function flow component enables you to display function measures on nodes in the PPM function flow diagram (Page 5).

The procedure is not required for PPM context based dashboards.

Several conditions must be fulfilled.

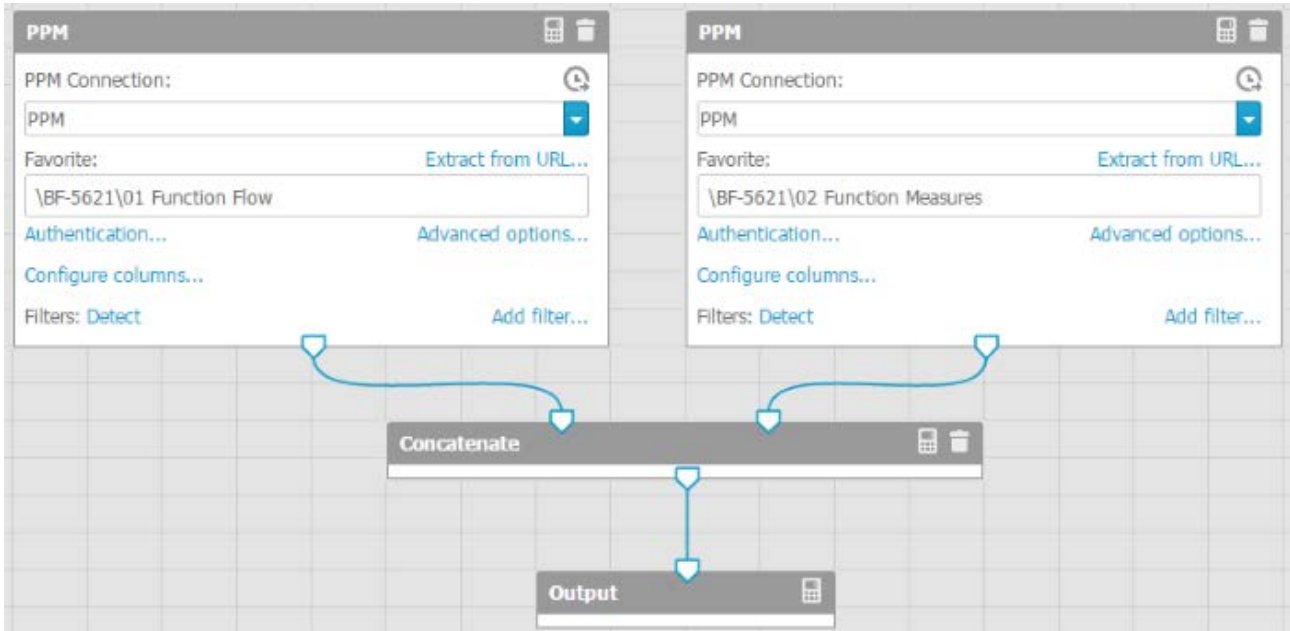
- The nodes data and the connections data are available in separate data tables provided by the relevant data sources.
- A column contains the function names. The data feed can supply several function measure values but only one value can be displayed in the graph.
- The data sources are connected by the **Concatenate** operator.
- The data source columns have to be assigned correctly to the function flow component elements (Page 6). An incorrect assignment (for example, the function measure value is used for the relevance or vice versa), can result in no graph or no function measure values. There is no check whether the columns have been assigned consistently.

Replacing the displayed function measure value can be done by choosing a different column in the assign data dialog for the function measure value.

Detailed information on how to configure data feeds and how to assign data can be found in the MashZone NextGen online help.

### Example data feed for displaying function measures

The example shows a working data feed configuration. The connection data is retrieved by the left PPM data source operator and the data for the function measures is retrieved by the right one. Both data sources are connected by the **Concatenate** operator.



**Example feed table with concatenated tables**

The result of the data feed definition is shown in the next figure.

Calculation result of operator 'Output'				
16077.0	Communication freq	T Function (Start)	T Function (Target)	16077.0
16077.0		Create sales order	Create invoice	
42.0		Perform price change	Perform price change	
84.0		Perform price change	Perform change on time	
305.0		Perform price change	Change customer order	
3563.0		Change customer order	Create delivery	
16077.0		Post goods issue	Confirm goods receipt	
11244.0		Create quotation	Create contract	
12514.0		Create invoice	Create delivery	
3563.0		Create invoice	Perform change on time	
389.0		Perform change on time	Perform price change	
877.0		Perform change on time	Perform change on time	
3258.0		Perform change on time	Change customer order	
16077.0		Create pick order and sh...	Post goods issue	
16077.0		Confirm goods receipt	Deliver to customer	
16077.0		Create contract	Create sales order	
16077.0		Create delivery	Create pick order and sh...	
			3563.0	Change customer order
			16077.0	Confirm goods receipt
			16077.0	Create contract
			16077.0	Create delivery
			16077.0	Create invoice
			16077.0	Create pick order and sh...
			11244.0	Create quotation
			16077.0	Create sales order
			16077.0	Deliver to customer
			4524.0	Perform change on time
			431.0	Perform price change
			16077.0	Post goods issue

## 6 Start PPM client component

The **Start PPM client** component is a custom component provided for MashZone NextGen. The component displays a customizable text which can be used to jump to PPM. An optional favorite can be configured to jump directly to this favorite when switching to PPM.

### 6.1 Insert text

You can insert any text into the **Start PPM client** component.

#### Procedure

1. Double-click the component.
2. Enter your text.
3. Click outside the component to close the input field.

The text is displayed in the component.

### 6.2 Specify component settings

You can specify the component display settings in the component properties dialog.

#### Procedure

1. Click the inserted **Start PPM client** component. The relevant properties dialog is displayed.
2. Specify your settings. See the display options list below. For more details on general options see the MashZone NextGen Online Help.

Your settings are applied.

#### Display Options

General Options	Description
Name	Optional component name
More options	Displays additional options
Container	<p><b>Hide/Show header:</b> Hides the header incl. the title of the component and the content will be resized. Click the icon again to display the header. Hidden header is default.</p> <p><b>Hide/Show border:</b> Hides the outline of the component container. Click the icon again to display the outline. Hidden border is default.</p>

General Options	Description
Container style	Selects the style type of the component container. The container styles available in the drop-down menu are part of the style template selected for the current dashboard. The <b>Default</b> component style is preselected initially.
Style	Selects the style type of the component.
Visibility	Selects the tabs, where the component is displayed. This option is only available in the fixed-grid mode.

Specific LinkToPPM component options	Description
PPM Connections	Alias of the PPM Connection, which contains the PPM client connection data defined in MashZone NextGen.
Favorite	Path of a PPM favorite. The favorite path represents the favorites tree including favorites folder and name, for example, \Favorites\Process cycle time
Extract from URL	Automatically determines the connection data of the PPM data source, for example, alias, favorite path, and favorite type, click <b>Extract from URL</b> and insert the favorite URL created in PPM.
Favorite type	Favorite type specifies the favorite as <b>Private</b> or <b>Shared</b> .

### 6.3 SAML Authentication

If a user starts PPM using the **Start PPM client** component, he is automatically authenticated against the PPM system via single sign-on (SSO), provided SSO is configured correctly for PPM and MashZone NextGen. The current logon language of the user is used for PPM if it is available in PPM. Otherwise, the default language of PPM is used.

Detailed information on how to configure a SSO integration for MashZone NextGen and PPM can be found in the MashZone NextGen online help and the technical documentation **PPM Installation**.

There are several ways the PPM client opens:

- PPM applet always opens in a new tab.
- PPM web start opens a new client window (if no favorite jump client window is open).

- PPM web start reuses an open client window (if favorite client window is open and languages match).
- PPM web start opens a new and closes open client window (if favorite client window is open and the languages do not match).

## 7 PPM variants component

The variants component enables the PPM process variants feature in MashZone NextGen. The component adapts the PPM variants feature to MashZone NextGen and makes the **PPM variants** component available in the MashZone NextGen component bar.

The **PPM variants** component is available from PPM version 10.1.0.2.

For general use of MashZone NextGen dashboards and components, see the MashZone NextGen online help.

### 7.1 What is the PPM variants component?

From version 10.1, PPM provides the process variants feature. The variants feature helps you to obtain an overview of the most typical process variants, to identify irregular processes, and to analyze them (for example, to detect critical outliers).

For details on how to use the variants feature in PPM, see the **PPM Process Analysis Quick Start Guide**.

The **PPM variants** component adapts the PPM process variants feature to the requirements and use cases of MashZone NextGen.

- The variants component provides a bar chart that shows the configured measure of the variants. In addition to the graphical representation, the measure values are displayed in the bars.
- On the left side of the bar chart, the values of the column assigned to the **Variant dimension** field are displayed. In most cases, these are the names of the variants.
- On the right side, optional measure values are displayed. A column with the values to be displayed can be specified as required. See Assign data sources (Page 22) for details.
- When you move your mouse pointer over a bar, a tooltip displays all information for this variant.

#### AXIS SCALING

You can select the axis scaling in the component properties dialog.

- **Linear axis scaling** - The X-axis values are scaled linearly from 0 to the highest value (bar completely filled).
- **Logarithmic axis scaling** - The X-axis values are scaled logarithmically.

#### VARIANT NAMES

The names of the variants depend on the variant dimension level selected. **Variant** has two dimension levels, **Combined variant** (rough step width) and **Precise variant** (refined step width).

The variant **v0(n/a)** contains all process instances that are not assigned to a variant.

#### Examples

Combined variant with rough step width: v1, v2, v3,...

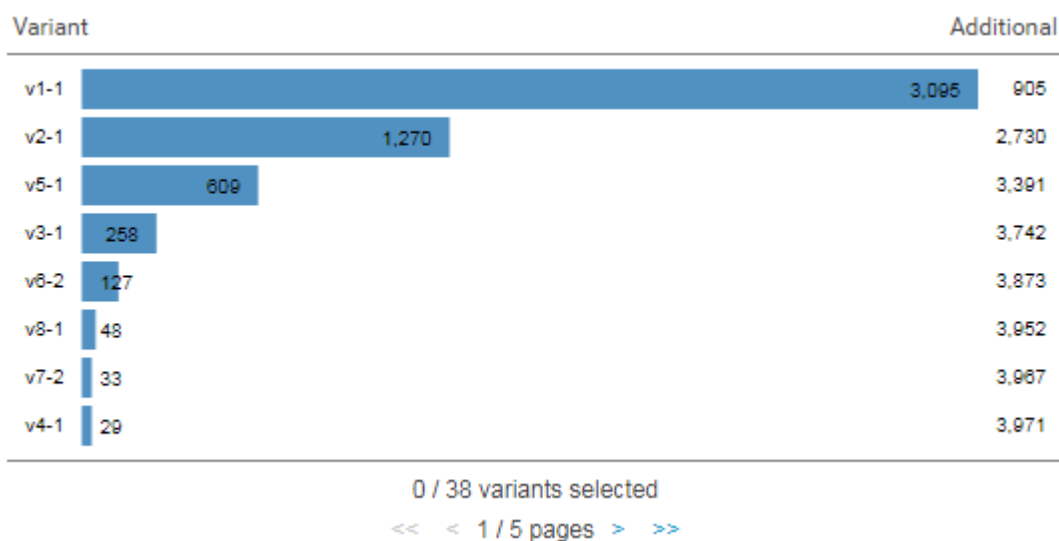
Precise variant with refined step width: v1-1, v1-2, v1-3,... ,v2-1, v2-2, v2-3... ,v3-1, v3-2, v3-3,....

## PAGINATION AND NAVIGATION

Depending on the number of variants and space available for the chart component, the variants are displayed on multiple pages. The current page and the total number of pages are shown at the center of the page, for example, 1 / 5 pages. You can use the links <<, <, > and >> to browse the pages. With the links << and >> you can navigate to the first or the last page, respectively. With the links < and > you can navigate one page backward or forward, respectively. If you click a link, the variants of the new page are loaded immediately without resetting the selections of the previous page.

When MashZone NextGen refreshes the data of the component, the pages are updated automatically.

### Example of the PPM variants component in MashZone NextGen



## 7.2 Specify diagram settings

You can specify the component display settings in the component properties dialog.

### Procedure

1. Click the **PPM variants** component on the dashboard. The relevant properties dialog is displayed.
2. Specify your settings. See the display options list below. For more details, see the MashZone NextGen online help.

Your settings are applied.



**Display options**


General options	Description
Name	Optional component name.
Container	<p><b>Show/Hide header:</b> Shows/Hides the header as well as the title of the component, and resizes the content of the container. Click the icon again to hide/show the header.</p> <p><b>Show/Hide border:</b> Shows/Hides the outline of the component container. Click the icon again to hide/show the outline.</p>
Container style	Selects the style type of the container. The container styles available in the drop-down menu are part of the style template selected for the current dashboard. By default, the <b>Default</b> widget style is preselected.
Style	Selects the style type of the component. The component styles available in the drop-down menu are part of the style template selected for the current dashboard. By default, the <b>Default</b> widget style is preselected.
Specific PPM variants options	Description
Scaling	Scaling type of the primary measure values. Select the type of scaling, <b>Linear</b> or <b>Logarithmic</b> . The bars are scaled depending on the selected scaling type.
Version	Displays the currently installed component version.

## 7.3 Assign data sources

Before you can display content in the variants component, you must first assign a data source to this component. You can select PPM as data source or any desired data source available in MashZone NextGen.

**Procedure**

1. Click the **PPM variants** component on the dashboard. The relevant properties dialog is displayed.

2. Click  **Assign data** to edit the data source assignment. The **Assign data (1/2)** dialog is displayed.

Here you can select a data source and specify your data source settings.

3. Click **Next**.

4. The **Assign data (2/2)** dialog will be displayed.

Here you can assign the data source columns to the individual component elements. See Settings (Page 24) for details.

5. Assign the data columns of the PPM context to the component elements using drag and drop.
6. Click an assigned column to specify the column settings. See Settings (Page 24) for details.
7. Click **OK** to save your settings.


The component shows a bar chart based on the data of the assigned data source.

### 7.3.1 Assign data columns of a PPM context

If you have configured a PPM context (Page 27) for your dashboard, you must only assign the data columns provided by the PPM context to the elements of the dashboard components (**Assign data (2/2)** dialog). You do not have to assign a data source to each component first (**Assign data (1/2)** dialog). The PPM context is automatically assigned to all components in the dashboard that have no data source assigned.

By default, the PPM context provides all data columns of the PPM system. For the **Variants** component, the columns are automatically filtered, and the PPM context provides only the variant dimension and numeric columns available.

#### Procedure

1. Click the **PPM variants** component on the dashboard. The relevant properties dialog is displayed.
2. Click  **Assign data** to edit the data source assignment. The **Assign data (2/2)** dialog is displayed.

Here you can assign the data source columns to the individual component elements. See Settings (Page 24) for details.

3. Assign the data columns of the PPM context to the component elements using drag and drop.
4. Click the assigned columns to specify the columns settings. See Settings (Page 24) for details.
5. Click **OK** to save your settings.

The component shows the variants as a bar chart based on the data of the assigned data source.

If you do not want to use context-based data columns, you can assign any other data source provided. You can change the data source by clicking **Use other data**. The **Assign data (1/2)** dialog opens. Here you can assign any data source provided. If you assign another data source, you cannot reassign the PPM context to the dashboard component. For details, see chapter Assign data sources (Page 22).

If required, you can adjust the list of data columns provided for the data columns assignment. Click **Edit PPM context** to edit the data columns specified in the PPM context.

For details on using and configuring a PPM context, see the MashZone NextGen online help.

### 7.3.1.1 Column matching

To facilitate the assignment of the source columns to the component elements, the names of the source columns are automatically matched to the default names of the columns in the standard customizing (in English and German only). The matching is only done if there are no columns already assigned to some component elements.

The following elements of the **Variants** component are matched (the comparison is case insensitive):

- Variant dimension
  - Is exactly "Variant"
  - Contains "Variant"
- Primary measure
  - Is only matched if there is only a single column with numeric type.

If there is no matching source column for a component element, the component element stays unassigned, and you must manually assign the column to be used.

## 7.4 Settings

The **PPM variants** component requires one column for the **Variant dimension** and one for the **Primary measure** element. Additionally, you can assign a data source column to the optional **Additional measure** element.

You can specify the **Display name** for the **Variant dimension** element. For the **Primary measure** and **Additional measure** elements, you can specify the **Display name** and the **Format**. If you enable the **Round numerically** option, the values are rounded according to the specified format, otherwise the digits are truncated. A column used as **Primary measure** cannot be used as **Additional measure** and vice versa.

If you use the PPM context for a **Variant** component, the **Display name** is not supported.

#### Option list

Field	Description
Variant dimension	<p>Contains the column with the names of the variants, for example, v1, v2, or v1-3. The names are displayed as labels of the bars.</p> <p>Mandatory.</p> <p>Allows only text columns.</p> <p>If the field is empty, no chart is displayed.</p>

Field	Description
Primary measure	<p>The values are used to compute the length of the bars and the sorting order of the variants. The data is always sorted in descending order. The order cannot be changed.</p> <p>Mandatory.</p> <p>Allows only numeric columns.</p> <p>If the field is empty, no chart is displayed.</p>
Additional measure	<p>Contains additional measure values assigned to the various variants. The values are displayed on the right side of the chart besides the bars.</p> <p>Optional.</p> <p>Allows only numeric columns.</p>

## 7.5 Set selections and filters

The PPM variants component supports the filter and selection functionalities of MashZone NextGen dashboards. By setting filters and selections, you can define relations and interactions between several dashboard components.

The PPM variants component can be used to set a selection or a filter in other dashboard components. Additionally, the entire component can be filtered by other components.

You can select a single variant or multiple variants at once. Click the variants you want to select. Or click a bar in the chart and drag the mouse pointer to the last variant bar that you want to select. A rectangle displayed marks your multi-selection. You can also use the rectangle to deselect variant bars.

The interactions between components are handled by using coordinates that contain the current selection. These coordinates are then updated by the component on every selection change and can be used to filter other components. The variants component currently only exposes one coordinate with the name **VariantList**. This **VariantList** coordinate delivers all variants which are currently selected in the variants component (in a special PPM syntax because MashZone NextGen currently does not support multi-selection.).

Please note the following advice:

- The filtering of other components is currently limited to data sources that can interpret the special PPM syntax. Therefore, only an input parameter in the feed or dashboard can be used which directly forwards the filter to PPM.
- Currently, you can only use variants components to set the selection of other variants components, because only variants components can interpret the required PPM syntax.

- The variants component can be filtered by other components without restriction. These filters are only result filters and are not forwarded to PPM unless they are configured as input parameters for the PPM operator.
- The selection of the variants components can be set by other components using the **VariantList** coordinate. The multiple selection is currently supported only by variants components.

General information on how to use filters and selections can be found in the MashZone NextGen online help.

## 8 Appendix

### 8.1 What is the PPM context?

From version 10.2, MashZone NextGen provides the PPM context. The PPM context is specified for a dashboard and can be used as a data source by any component on the dashboard.

The PPM Context significantly facilitates the creation of dashboards based on data from a PPM sever. This allows you to directly access analytics results, such as measures and dimensions, from the PPM server without creating any favorite in PPM itself. In addition, dashboards based on a PPM context support automatic filtering (Page 27) without any configuration needed.

For details on using and configuring a PPM context, see the MashZone NextGen online help.

#### 8.1.1 Automatic filtering

All components on a dashboard using the PPM context (Page 27) are automatically filtered by a selection in another PPM context-based component. That is, if you select a data point in a context-based component, such as a column in a chart, all other context-based components on the dashboard are filtered by the values selected. Currently only text columns are supported. The selections are directly passed to PPM, and the corresponding filtered data is returned to MashZone NextGen and displayed in the components.

For every data column in the PPM context, there can only be one component which filters this column automatically by its selections. By default, this component is the first component which was created with the data column assigned. The data columns which are automatically filtered by a component are listed on the **Context** tab in the properties dialog of the component. You can also enable or disable this automatic filtering for data columns on this tab.

Note that filtering on functions and relation dimensions is currently not supported in the PPM context and therefore the **Function flow** component does not filter other components by its selections.

For details on how to configure the filter for PPM context-based components, see the MashZone NextGen online help.