# **S** software

# ARIS PROCESS PERFORMANCE MANAGER PROCESS ANALYSIS QUICK START GUIDE

VERSION 10.5.11 AND HIGHER APRIL 2025

This document applies to ARIS Process Performance Manager Version 10.5.11 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.

The name Software AG and all Software GmbH product names are either trademarks or registered trademarks of Software GmbH 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 GmbH and/or its subsidiaries is located at <u>https://softwareag.com/licenses</u>.

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 GmbH Products / Copyright and Trademark Notices of Software GmbH Products". These documents are part of the product documentation, located at <a href="https://softwareag.com/licenses">https://softwareag.com/licenses</a> and/or in the root installation directory of the licensed product(s).

Use, reproduction, transfer, publication or disclosure is prohibited except as specifically provided for in your License Agreement with Software GmbH.

# Contents

1	Genera	ral	1
2	PPM d	demo database	2
3	Introdu	duction to ARIS Process Performance Manager	3
4	Key te	erms	7
	4.1	Process type	8
	4.2	Measure	8
	4.3	Dimension	
	4.4	Filter	
	4.5	Planned value	
	4.6	Query	9
5	Start t	the PPM user interface	11
6	Analyz	ze processes	12
	6.1	Display favorites	13
	6.2	Save analyses	14
	6.3	Display analysis as a chart	
	6.4	Display measure values and legend in the chart	
	6.5	Display planned values	
	6.6	Set filter	
	6.7	Replace dimension	
	6.8	Set step width	
	6.9 6.10	Add dimension Change analysis view	
	6.11	Display process instance distribution	
	6.12	Display process instances	
	6.13	Compare processes	
	6.14	Process variants	
		4.1 Variants bar	
	6.14		
		6.14.2.1 Variants in scaled systems	
7	Genera	ral handling	38
,	7.1	Quick-start an analysis	
	7.2	Adapt user interface	
	7.2.		
	7.2.		
	7.2.		
	7.2.	5	
	7.2.		
	7.2.	.6 Show and hide bars	40
	7.2.	- <b>)</b>	
	7.2.	5	
	7.2.	9 Restore bar positions	42

7.3	Quickly find entries in lists and tree structures	42
Legal	information	43
8.1	Documentation scope	43
8.2	Support	43
	Legal 8.1	<ul> <li>7.3 Quickly find entries in lists and tree structures</li> <li>Legal information</li> <li>8.1 Documentation scope</li> <li>8.2 Support</li> </ul>

### 1 General

This manual provides an overview of PPM and, using examples, introduces you to basic functionalities.

The quick start guide to process analysis is intended for PPM users being process owners or business analysts.

Role definition

As a process owner, you can

- call predefined queries.
- interpret the results in reports.

As a business analyst, you can

- create basic analyses by using measures, dimensions, filters, and various views.
- perform cause analyses for your processes and organizations.

Тір

More information on PPM is available in the PPM user interface under PPM > Documentation.

# 2 PPM demo database

PPM includes a demo database that you can use to familiarize yourself with the program. If you want to work with an example we recommend that you use the umg\_en demo database. The demo database contains all measures and dimensions that you need for the examples. It is possible that the measures and dimensions in the use cases are not available due to the configuration of your company-specific PPM database. Of course, you can use any other process types, measures, and dimensions to work with the example.

You can use PPM Customizing Toolkit to install the demo database. If you want to use the demo database, please contact your system administrator.

# 3 Introduction to ARIS Process Performance Manager

ARIS Process Performance Manager (PPM) provides comprehensive analysis functions (Slice & Dice, ad-hoc analyses, reporting, etc.) to monitor and evaluate the performance of business units and business processes from various perspectives (for example, results view vs. view of processes leading to results). By combining business process data, social interaction patterns, and result data users can create integrated analyses for measure evaluation. These analyses allow comprehensive insight into daily routines and results of a company and thus represent the basis for benchmarking and weak point analyses - for example, early identification and resolving of bottlenecks or problematic interaction patterns.

### PROCESS PERFORMANCE MANAGEMENT

Business processes (page 7) are operational business activities. Effective company management therefore requires active business process controlling (Business Process Intelligence (page 7)). Process performance management continuously monitors planned goals and warns in time if deviations from the plan occur so that suitable countermeasures can be initiated. This is how companies achieve improved process quality, which directly impacts business performance. The continuous monitoring of actual business processes therefore closes the gap between corporate strategy and its operational implementation.

### ARIS PROCESS PERFORMANCE MANAGER

PPM supports you in analyzing your processes by providing comprehensive online analysis options based on measures and by representing your actual, measured processes. For an efficient process analysis, PPM gathers the necessary data from your operational systems, automatically reconstructs the processes across the whole system, and calculates the measures required for these processes. The individual process instances (page 8), that is, actual processes or transactions (for example, an order #4711 received by FAX on 17-Sep-2005) are imported from a freely definable source system (such as SAP MM) and represented in an EPC (page 7) (event-driven process chain). For data extraction from your source systems, PPM provides all required interfaces and extractors.

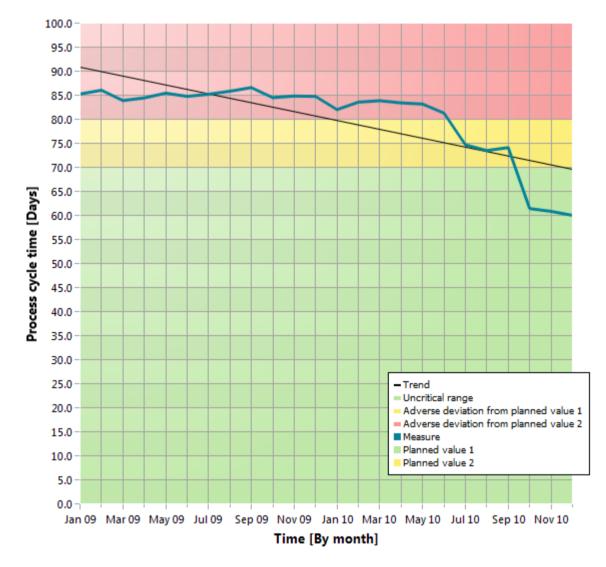
### PROCESS ANALYSIS

Process analysis mainly involves specifying process and function measures (cycle times, frequencies, costs, adherence to deadlines and quality guidelines), as well as representing the actual process in an EPC view. The visualization functions have been developed in such a way as to make a process view more informative and easy to read. PPM provides a wide selection of chart types and tables for you to display the results of your analyses clearly and in detail.

#### Example

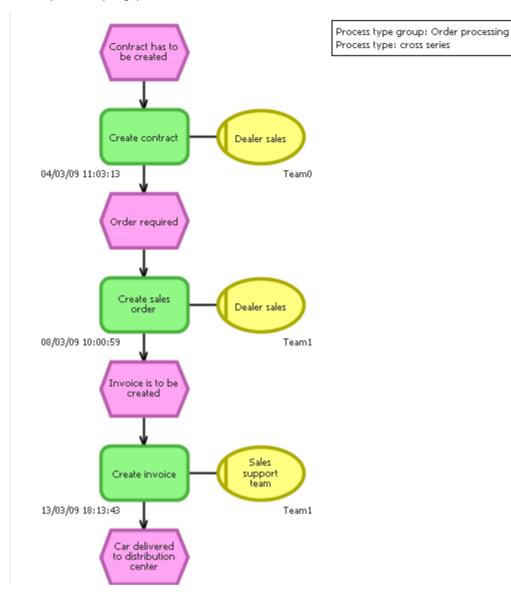
The following illustrations show examples of a process analysis of the cross series processes of the Order processing.

The first example shows a trend chart with the process cycle time for the year 2008. It illustrates the development of the process cycle time in the course of the year and how the actual measure behaves in relation to the planned values.



Example: Trend chart of process cycle time

The following example shows a process instance in the form of an EPC, which PPM automatically generated based on the measured processes. It illustrates the actual flow of an individual process of the cross series process type (page 8) in the Order processing process type group.



Example: Display process instance as EPC

The following example illustrates the data measured by PPM for the selected process instance. The data of the process instance or the individual process elements, such as functions or events are displayed as attributes.

### Example: Process instance attributes

4	Process attributes			23
	T	1. Attribute type	Attribute value	
	Attribute type group	Number of processes	1	
	▼ Process attributes	Number of processors	3.000	
	Cost accounting	Process cycle time	103 02:13:43	
	▼ Internal			
	▼ Merger			
	Merge key			
	₩ KPIs			
	Aggregation			
	Cost accounting			
	SAP attributes			
	L		OK Cancel H	lelp

Тір

The PPM user interface provides you with all of the functions required to set your analyses and display the results.

# 4 Key terms

### PROCESS INTELLIGENCE

Process intelligence (Business Process Intelligence) describes a method for systematic analysis (collection, evaluation, representation) of business processes and company data (process data) in electronic form. The objective is to obtain conclusions that enable improved operative or strategic decision-making in terms of corporate goals. Process intelligence provides an objective basis for decisions pertaining to displaying and implementing improvement potential in real time. Automated analyses identify factors that affect process performance.

### **BUSINESS PROCESS**

A business process is a sequence of activities aiming to achieve business results. A business process is usually run through multiple times, can be part of another business process or contain or trigger other business processes. Business processes often apply across departments and divisions and are therefore part of the company organization structure.

### EVENT-DRIVEN PROCESS CHAIN (EPC)

An event-driven process chain is a model type used to graphically describe the chronological sequence of a performance delivery process. The event-driven process chain is based on the following assumptions:

- Each activity within a process is triggered by a commercially relevant change of state of an information object.
- Each activity can result in a commercially relevant change of state of an information object.

The status of a commercially relevant information object is graphically described by means of an event. Functions are used for the graphic representation of activities.

Linking events and functions in series and connecting these objects with directed connections graphically represents the control flow of the process. Since an event can trigger several functions and since a function can have several events, the process path can branch. AND, OR, or EXCLUSIVE OR rules are inserted at branches of the process path. They illustrate the logical relationship that exists between the sequenced objects.

Organizational units can be assigned to a function. An organizational unit describes the group of processors in the company which executes the function in question. Organizational units are linked to the relevant function using connections.

EPCs are used in PPM to represent processes actually executed in the past (so-called process instances).

### PROCESS INSTANCE

Concrete occurrence of a process, for example, processing of standard order 4711. A process instance describes the sequence of activities performed in the company to deliver a required product or service.

Process instances provide the data base for calculation of the measures in PPM. They are provided by a data import from a source system.

In PPM, the EPC (page 7) model type is used for the graphic representation of process instances.

### 4.1 Process type

All process instances are classified when you import data into PPM. They are therefore assigned to process types. This assignment ensures that order processing transactions are not compared against return transactions, for example.

### 4.2 Measure

In business, measures represent aggregated information on quantifiable operating facts. They are intended to enable easy control of processes and results.

#### Example

An example of a measure is the process duration (or process cycle time). It is calculated based on two process instance measurement points, Start time and End time. The calculation/measurement is performed for each process instance. When analyzing multiple process instances, the measurement values of the individual instances are aggregated (for example, by averaging) and the aggregated values are then displayed in PPM. Measures are sometimes referred to as metrics, as well.

#### Measure evaluation

The rating of a measure indicates the effects of an increasing measure value on the achievement of your process goals.

- Positive means that rising values have a positive effect on goal accomplishment (for example, number of orders).
- Negative means that rising values have a negative effect on goal accomplishment (for example, process cycle time).

# 4.3 Dimension

Dimensions are criteria according to which the measures analyzed can be differentiated (for example, sales organization or order volume).

Dimensions can be configured in terms of step width and value range. For example, the Time dimension can be displayed with the step widths Year, Quarter, Month, Week, Day, or Hour. The incremental calculation or analysis of a measure via a dimension is also called iteration. You can restrict the value range using filters. For the Time dimension, the value range can be defined as a period (for example, time from 07/01/01 to 07/01/02).

### 4.4 Filter

Filters limit the number of process instances to be included in the aggregation of a measure during analysis. You can define filters for measures and dimensions. Each filter describes a specific value range for a measure or dimension, and process instances falling within this range will be included in the analysis.

# 4.5 Planned value

A planned value describes the objective for individual process measures that you can specify in a planned value definition. A planned value definition consists of two numerical values. Planned value 1 is the value above or below which the measure moves into a critical range. As soon as the measure infringes this planned value (green-yellow limit), accomplishment of the process goal is jeopardized and you should initiate improvement measures immediately. Planned value 2 (yellow-red limit) corresponds to the planned measure value. As soon as the measure infringes this planned value, the goal has not been accomplished.

# 4.6 Query

Queries summarize the configuration of analyses, for example, filters, dimensions, measures and view type.

You can use the PPM user interface to interactively set up and run a query and display the analysis results.

### FAVORITE

A favorite is a shortcut to quickly access a query that already exists. Using favorites, you can, for example, create frequently used queries and reuse them.

A favorite does not store the actual values of a query, but the following criteria:

- Process types or functions
- Measures
- Dimensions
- Filter
- View
- Formatting of the individual views

# 5 Start the PPM user interface

This chapter describes how to start the PPM user interface.

To use PPM, you must log in as a user to an available PPM client. Depending on how PPM was installed, you call up the user interface via a Web browser or start it as a local installation.

Before you can start the user interface you need to start the required infrastructure components and PPM components.

In PPM, the system user is created with the password manager by default. You log in with this user/password combination if the password has not been changed and if you have not been configured as a PPM user.

#### Тір

For further information on PPM installation, please refer to the document PPM Installation or contact your system administrator.

#### Procedure

 Open the Windows Start menu and click Start ARIS PPM Core 10.5.3 in the ARIS > PPM 10.5.3 > Start Servers program group.

The infrastructure components and PPM components start. As soon as the start process is completed, you can start the PPM user interface.

 Open the Windows Start menu and click ARIS PPM GUI 10.5.3 in the ARIS > PPM 10.5.3 > Tools program group.

The login dialog is displayed.

- 3. Enter system in the User box.
- 4. In the Password box, enter the password manager.
- 5. In the Client box, enter the client name umg\_en.
- 6. Click Next.
- 7. In the Language box, select the language that PPM is to be displayed in.
- 8. Enable the option Save login data if you want to save the login data entered for the next login. The password will not be saved.
- 9. Click Log in.

The PPM user interface is started and the start page is displayed.

The PPM start page provides quick and easy access to your analyses. (page 38)

# 6 Analyze processes

This chapter uses a complete use case example to describe basic PPM functionalities. For your process analysis, the following questions must be considered.

- What is the goal of your analysis (for example, do you want to find out about the causes of a planned value deviation or conduct a performance analysis of particular processes)?
- Which processes in your company do you want to analyze, for example, sales or order processing?
- Which measures (for example, sales or process cycle time) do you want to view for which dimensions (for example, sales or sales organization)?
- What is the best view type (for example, chart or table) for the results of your analyses?

#### Example

#### Situation

Several customers complained about very long processing times of their orders and that deadlines were not met. You should therefore find possible weak spots in your company processes.

#### Procedure

You want to examine the Order processing processes, in particular the cross series processes with a view to planned value deviations and suspected deviations pertaining to Process cycle time.

First, you query the process performance of the cross series in order processing. Then you perform your analysis in detail for your company's Dealers for the year 2009. In addition, you evaluate the analysis results by quarter. Using the process instance analysis, you examine the suspected deviations in your processes. You display your analyses in various views in structured charts and tables and make them available as a PDF document.

Your procedure consists of the following steps:

- Display a predefined query
- Create a 2D and 3D column chart
- Create list table
- Determine process instance distribution
- Display anomalous process instances as an EPC
- Perform EPC benchmark
- Output analyses as a PDF document

# 6.1 Display favorites

You want to display suspected deviations in the processes of the SUV series area. This is an analysis that you will frequently use to find out in time about possible anomalies in your processes.

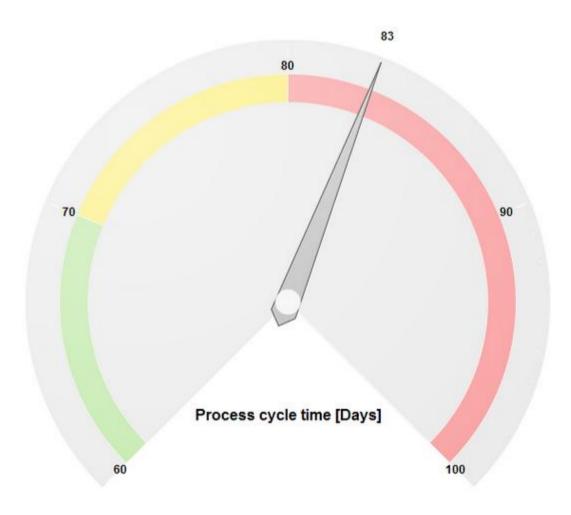
A predefined query (page 9) is available as a favorite (page 10) to do this. With this favorite, you can easily run frequently used queries (Queries bar).

Procedure

- 1. Select the Process analysis module.
- 2. Click Private favorites in the Favorites bar.
- 3. Double-click the O1 Process cycle time favorite.

A speedometer chart displays the current average process cycle time relative to the defined planned values. With 83 days, the process cycle time is in the critical range and deviates from the defined planned value 2 (yellow/red limit).

Example: Process performance in the SUV series area



# 6.2 Save analyses

You want to save your current analysis results to be able to reuse them later.

To do so, you can copy your analysis to the Clipboard panel. The Clipboard panel keeps your analysis for the duration of your current PPM session.

Procedure

- 1. Display the Clipboard tab bar.
- 2. Click the Apply button.

Your current analysis is saved in the Clipboard panel and displayed as a thumbnail.

Тір

If you want to reuse your analysis in a subsequent PPM session you can save it as a favorite. For detailed information on this topic, please refer to the PPM help topics.

# 6.3 Display analysis as a chart

You want to analyze the process performance of the cross series processes in detail for the year 2009, and you suspect weak spots at your dealers. Your analysis is to be displayed in a clear and easy-to-read chart.

The analysis of only one measure (page 8) (Process cycle time) and one dimension (page 9) (Dealer) can easily be displayed in a 2D column chart.

Use a wizard to create your analysis.

In the wizard, set the following items for your analysis.

- View type: 2D column chart
- Processes: SUV series of Order processing
- Measure: Process cycle time
- Dimension: Dealer
- Filter: 2009

#### Procedure

- 1. Display the Base tab bar.
- 2. Click 🖸 New.
- 3. Click the Two-dimensional chart button.
- 4. Click Execute.
- 5. Click the Column chart button.
- 6. Click Next.

- 7. Double-click the Order processing process type group in the process tree.
- Select the cross series process type.
   Only the process instances of this process type will be evaluated.
- 9. Click Next.
- 10. Select the Process cycle time measure.

The process cycle times of the process instances you selected in the previous step are analyzed.

- 11. Click Next.
- 12. Select the Dealer dimension.

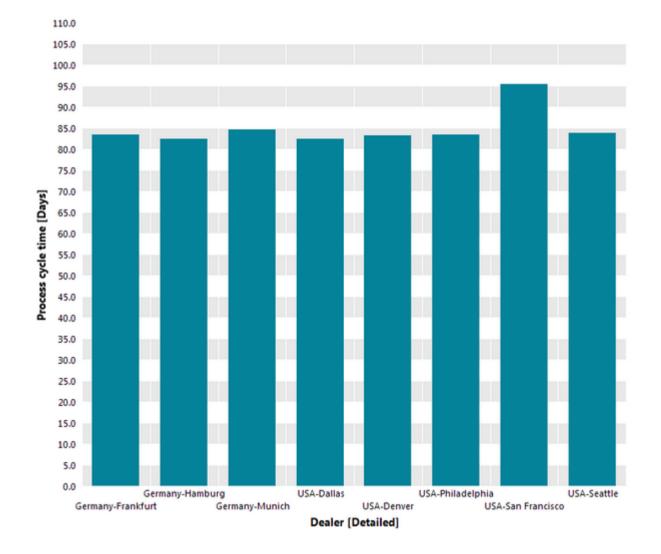
The process cycle times of the standard orders are analyzed for the selected dealers.

- 13. Click Next.
- 14. Double-click the Time dimension.
  - a. Enter 2009 on the Absolute tab.
  - b. Click OK.

Only data for the year 2009 will be analyzed.

15. Click Finish.

Your process analysis is displayed as a 2D column chart.



#### Example: Process cycle time/Dealer process analysis as a 2D column chart

### 6.4 Display measure values and legend in the chart

You want to display the measure values for each dealer in your chart and also want to show a legend.

Procedure

- 1. Display the Base tab bar.
- 2. Click 🖽 Display options.
- 3. Display the Chart settings page.
- 4. Select the Absolute option in the Measure values group box.
- 5. Display the Labels page.
- 6. Enable the Display legend option.
- 7. Display the Colors page.

8. Enable the Highlight values option in the Display effects group box.

Now the measure values and a legend are displayed in your chart.

Тір

You can move the displayed legend in the chart using the mouse.

### 6.5 Display planned values

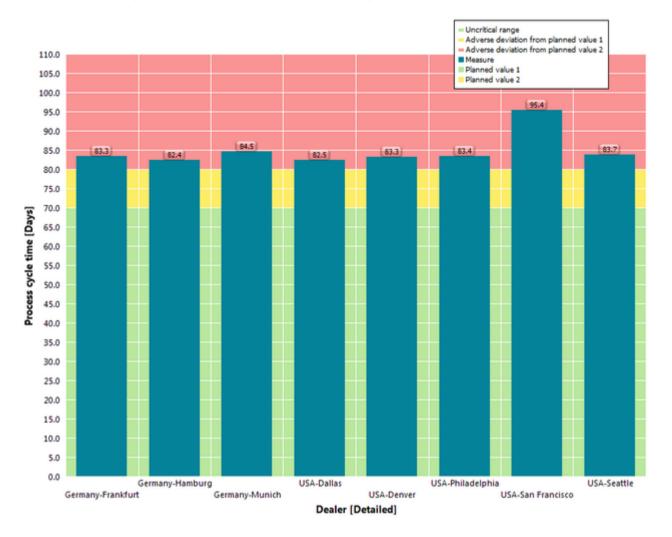
You want to display planned values (page 9) in your chart to see which of your dealers meet or deviate from the planned values.

Additionally, you display the planned values and measure areas in your current analysis.

#### Procedure

- 1. Display the Query tab bar.
- 2. Click � Planned values.

The planned values and the corresponding measure areas are displayed in color in your chart. Planned value 1 indicates the borderline between the uncritical area (green) and the unfavorable area (yellow), while Planned value 2 demarcates the borderline to the critical area (red).



#### Example: Display planned values in process analysis

### 6.6 Set filter

You want to limit your process analysis to the two dealers with the longest process cycle time and compare them to the dealer with the shortest process cycle time.

To do so, set a filter (page 9) for your dealers that returns the dimension steps with the relevant measure values. The filter includes the dealers in Frankfurt and San Francisco, both of which are close to planned value 2, and Munich with the shortest process cycle time.

Procedure

- 1. Enable the Filters bar.
- 2. Display the Filters tab bar.
- 3. Click **Y** Select criteria.
- 4. Double-click Dealer in the Available dimensions/measures column.
- 5. Click OK.

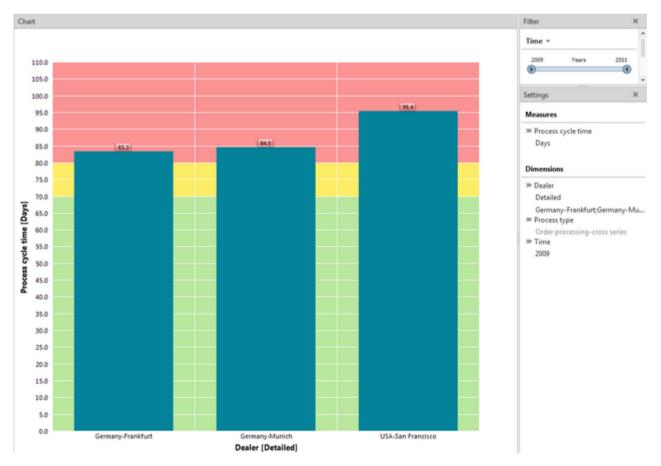
The filter criterion Dealer is added to the Filters bar.

6. Click ▼ Expand in front of the Germany and USA filter values under the filter criterion Dealer.

The tree expands accordingly.

- Enable the filter values Frankfurt, Munich, and San Francisco.
   The column chart displays only the columns for Frankfurt, Munich, and San Francisco.
- 8. Set the sort direction for the chart axis.
  - a. In your chart, right-click the Dealer dimension.
  - b. Select Sort axis values.
  - c. Select Ascending as direction and Process cycle time as sort criterion.
  - d. Click OK.

The set filter is applied to your analysis and the dimension steps are displayed in your chart in line with their measure values in ascending order.



#### Example: Process analysis with filter

# 6.7 Replace dimension

Next, you want to analyze the process cycle times for the SUV series area for the year 2009. To do this, you can replace the Dealer dimension with the Time dimension directly in your chart.

#### **REPLACE DIMENSION**

Procedure

- 1. In your chart, right-click the Dealer dimension and select Replace dimension.
- 2. Select the Time dimension.
- 3. Click OK.

The new Time dimension and the Process cycle time measure with the corresponding planned values are displayed in your chart.

Тір

Alternatively, you can replace a dimension by drag and drop. To do this, display the Dimensions bar and drag the relevant dimension with the mouse to the desired position in your chart.

You can also replace measures in your analysis using the same procedure.

# 6.8 Set step width

You want to summarize the display of the set Time dimension in quarters instead of displaying it in months.

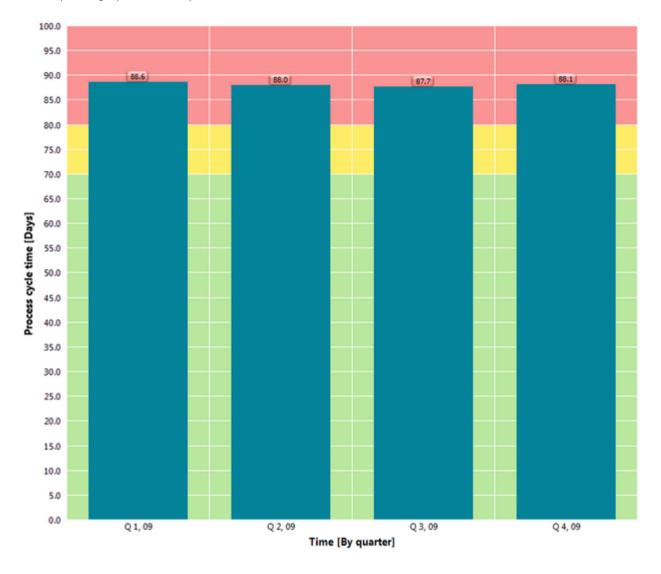
To do so, set the step width of the Time dimension.

Procedure

#### SET STEP WIDTH

- 1. Display the Settings bar.
- 2. For the Time dimension, click the currently set step width.
- 3. Enable the By quarter option.
- 4. Click OK.

The set step width is applied to your analysis and displayed as a single column in your chart.



#### Example: By quarter step width of the Time dimension

### 6.9 Add dimension

You want to display the two individually analyzed dimensions in one chart to determine possible interrelations.

To do so, add the Dealer dimension of your current analysis to the Time dimension and hide the planned values from your chart for better reading.

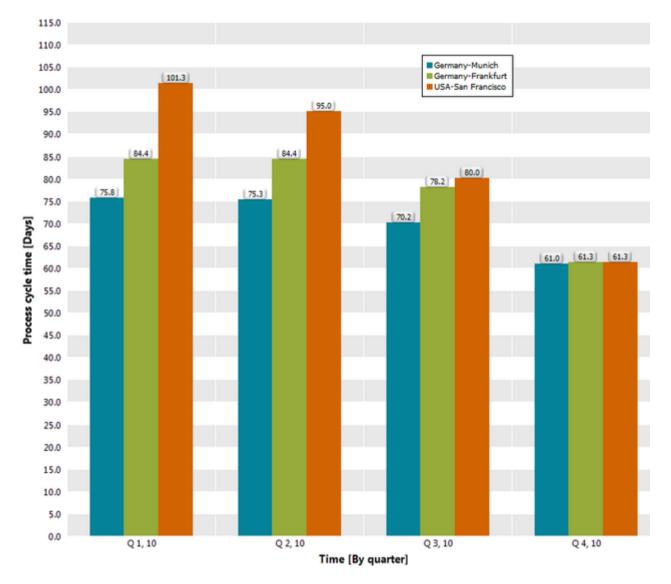
Procedure

- 1. Display the Query tab bar.
- 2. Click 🔽 Select dimensions.
- 3. Double-click the Dealer dimension.
- 4. Click OK.

5. Click • Hide planned values in the Query tab bar.

The additional dimension is added to your analysis and displayed in your chart. The individual sales organizations are grouped for each quarter in line with the set step width.

In the fourth quarter of 2009, the process cycle times of the three dealers are almost identical.



Example: Process analysis with the Sales organization and Time dimensions

# 6.10 Change analysis view

To obtain a better overview, you want to display each dimension of your analysis on its own chart axis. Besides, you want to summarize your analysis in a table and display the planned values.

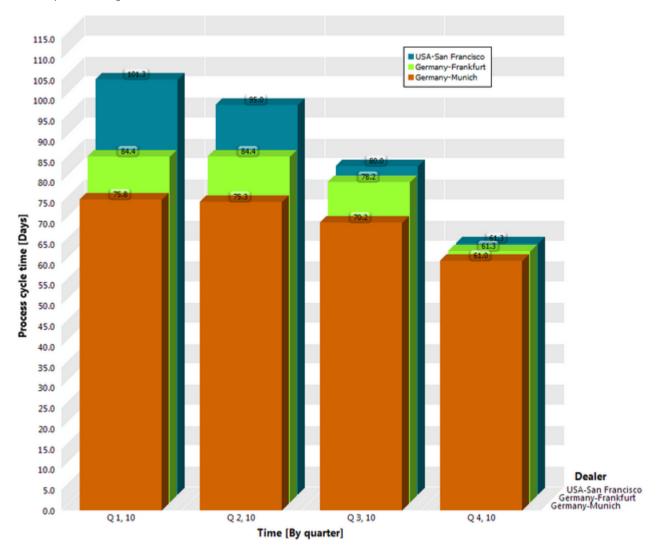
To do this, select the corresponding analysis view. To display the analysis of two dimensions and a measure, you can select a 3D column chart, for example. To display planned values in a table, a list table is recommended for an analysis view.

#### DISPLAY 3D COLUMN CHART

#### Procedure

- 1. Display the Visualization tab bar.
- 2. Click 📅 Select analysis view.
- 3. Double-click the 3D column chart button.
- Set descending sort direction for the Dealer axis. (See chapter Set filter (page 18))
- 5. To render the chart clearer, set the color of the columns for the dealer in Frankfurt.
  - a. Right-click a column of the Frankfurt dealer.
  - b. Click Edit color assignment in the pop-up menu.
  - c. Select a color.
  - d. Click OK.

The changed settings are applied to your current analysis.



#### Example: Analysis of a measure and two dimensions in a 3D column chart

#### **DISPLAY LIST TABLE**

Procedure

- 1. Display the Visualization tab bar.
- 2. Click III Display list table.
- 3. Display the Query tab bar.
- 4. Click � Show planned values.
- In the table, click the header of the column Process cycle time to sort the table in descending (↓) or ascending (↑) order.

The changed settings are applied to your current analysis.

The list table is sorted by process cycle time including planned values 1 and 2. The measure values are colored in line with your goal accomplishment.

Table						
Time [By quarter]	Dealer [Detailed]	Process cycle time [Days]	Planned value 2 Process cycle time [Days]	Planned value 1 Process cycle time [Days]		
Q 1, 10	Germany-Frankfurt	84.4	80.0	70.0		
Q 1, 10	Germany-Munich	75.8	80.0	70.0		
Q 1, 10	USA-San Francisco	101.3	80.0	70.0		
Q 2, 10	Germany-Frankfurt	84.4	80.0	70.0		
Q 2, 10	Germany-Munich	75.3	80.0	70.0		
Q 2, 10	USA-San Francisco	95.0	80.0	70.0		
Q 3, 10	Germany-Frankfurt	78.2	80.0	70.0		
Q 3, 10	Germany-Munich	70.2	80.0	70.0		
Q 3, 10	USA-San Francisco	80.0	80.0	70.0		
Q 4, 10	Germany-Frankfurt	61.3	80.0	70.0		
Q 4, 10	Germany-Munich	61.0	80.0	70.0		
Q 4, 10	USA-San Francisco	61.3	80.0	70.0		

#### Example: Analysis of a measure and two dimensions with planned values as a list table

### 6.11 Display process instance distribution

You want to know how process instances distribute to the various process cycle times or, in other words, you want to see with which process cycle times the most processes are executed in the SUV series area.

To do so, create a distribution chart for your analysis. A distribution chart displays the number of process instances for a distributable measure.

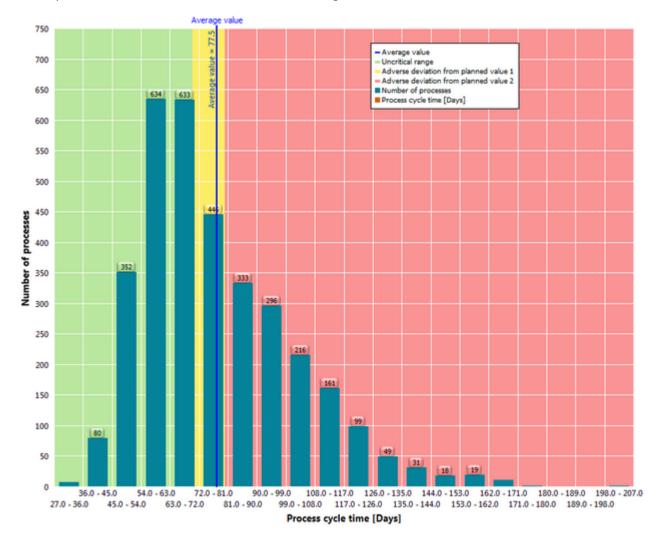
You can create a distribution chart either using a wizard or, if your current analysis already contains the relevant measure, using  $\clubsuit$  Show distribution.

Procedure

- 1. Display the Query tab bar.
- 2. Click 🟠 Show distribution.
- 3. Display the Clipboard tab bar.
- 4. Click the Apply button.

A distribution chart is displayed for the set Process cycle time measure and your query is saved in the Clipboard panel.

Most process instances are in the uncritical area (green), but are very close to the average value.



#### Example: Distribution chart of the Process cycle time measure

### 6.12 Display process instances

You want to view the process instances in the critical area in detail. The data range of interest comprises the process cycle times 81 to 180 days, which are above the defined planned value.

Display a list of the critical process instances for the corresponding data range.

Procedure

- 1. Display the Visualization tab bar.
- 2. Click 🖸 Select data range.
- With the mouse, drag a selection frame in the chart around the columns of the data range 81.0-90.0 to 171.0-180.0 days.

The area is now selected.

4. In the selected area, click **v** Display menu.

5. Click Display process instance table in the pop-up menu.

The process instance table with the critical process instances of the selected area is displayed.

- 6. Click the header of the column Process cycle time to sort the table by process cycle time in descending order.
- 7. From the list, select the process instance with the longest process cycle time.

The EPC pertaining to the selected process instance is displayed.

#### Example: Process instance and EPC with the longest process cycle time

Process instance table							
Order processing-cross seri	es						
Process identification	↓ <sup>7</sup> Process cycle time [Days]	Number of processes	EPC	Attributes	Functions	Flow chart	Resources
UMG#000000080-3_54645817	153.0	1 *		_	_		
UMG#000000080-3_436247	152.9	1			ation has	Process type group	p: Order processing
JMG#000000080-3_436247	152.6	1		10 be	created	Process type: cros	s series
JMG#000000080-3_436247	152.3	1			1		
UMG#000000080-3_436247	151.3	1					
UMG#000000080-3_436247	151.0	1		Create	quotation	(Dealer sales )	
UMG#000000080-3_436247	150.1	1	0.00	15 /10 /15 /10 /10		<u> </u>	
UMG#000000080-3_54646640	150.0	1	01/	02/10 12:10:25	+	Team	W :
UMG#000000080-3_5684925	149.9	1					
UMG#000000080-3_436247	149.4	1		Create	contract	Dealer sales	
UMG#000000080-3_436247	148.9	1	14/	02/10 16:00:34	T	Team	0
UMG#000000080-3_436247	148.6	1				0	
UMG#000000080-3_54646609	147.7	1			vte sales	(Dealer sales )	
UMG#000000080-3_54646254	146.8	1	1000			<u> </u>	
UMG#000000080-3_54646443	146.2	1	15,0	02/10 11:08:59	+	Team	0
UMG#000000080-3_54646052	146.1	1		(	same 1	Sales	
UMG#000000080-3_54646225	144.7	1		Creat	e invoice	- support team	
UMG#000000080-3_436247	144.2	1	25	/02/10 5:27:50		Team	3
UMG#000000080-3_436247	144.0	1			×		
UMG#000000080-3_436247	143.8	1			m change	Sales pupport team	
UMG#000000080-3_436247	143.6	1				Team	
UMG#000000080-3_436247	143.0	1	127	04/10 23:58:59	*	Team	5.
UMG#000000080-3_5684965	142.9	1		0	lange	Sales	
UMG#000000080-3_5685017	142.5	1		custor	ner order	support team	
UMG#000000080-3_5685015	141.5	1	11/	05/10 14:51:26	I	Team	0
UMG#000000080-3_54646528	141.1	1				0	
UMG#000000080-3_436247	141.0	1		Creat	delivery	Distribution Center	
UNACHODODODOD 3 436347	141.6	17	<b>x</b> =				

### 6.13 Compare processes

You want to compare process instances with long and short process cycle times to identify possible weak spots in the process.

To do so, compare the two aggregated EPCs of the respective process instances. An aggregated process creates an aggregated process from multiple process instances and assigns a probability of execution to each path in the process.

Use the Clipboard panel to compare two EPCs.

#### Тір

To improve the process display, you can hide organizational units and events in the displayed EPC. Only functions and start and end events of the EPC are displayed now.

### AGGREGATED EPC WITH LONG PROCESS CYCLE TIME

#### Procedure

 Click in the process instance table and select all process instances by pressing Ctrl and A.

All process instances in the table are selected and an aggregated EPC of all selected process instances is displayed.

- 2. Display the Base tab bar.
- 3. Click 🖽 Display options.
- 4. Display the EPC view settings page.
- 5. Disable the Organizational units and Events options in the Display box.
- 6. Click OK.

Organizational units and events are no longer displayed.

- 7. Display the Visualization tab bar.
- 8. Click 🛃 Fit to window.

The complete EPC is displayed in the window.

- 9. Display the Clipboard tab bar.
- 10. Click the Apply button.

Your current query is saved in the Clipboard panel.

### AGGREGATED EPC WITH SHORT PROCESS CYCLE TIME

#### Procedure

- In the Clipboard panel, double-click the previously created distribution chart. The distribution chart is displayed.
- 2. In the chart, right-click the bar with the shortest process cycle time.
- 3. Select Display process instance table.

The table of process instances with the shortest process cycle time is displayed.

4. Click in the table and select all process instances by pressing Ctrl and A.

All process instances in the table are selected and an aggregated EPC of all selected process instances is displayed.

- 5. Display the Base tab bar.
- 6. Click 🖽 Display options.
- 7. Display the EPC view settings page.
- 8. Disable the Organizational units and Events options in the Display box.
- 9. Click OK.
- 10. Organizational units and events are no longer displayed.
- 11. Display the Visualization tab bar.
- 12. Click 🔝 Fit to window.

The complete EPC is displayed in the window.

- 13. Display the Clipboard tab bar.
- 14. Click the Apply button.

Your current query is saved in the Clipboard panel.

#### COMPARE PROCESSES

Procedure

- 1. Select both queries in the Clipboard panel.
- 2. In the Clipboard tab bar, click the Benchmark button.

Both processes are displayed in one window side by side in their EPC views.

You can now compare both processes in detail and examine them for process weak spots.

Order processing-cross terres			Order processing-cross series	
Process identification ING/000000000 - 3,546/1005 ING/000000000 - 3,545/105 ING/000000000 - 3,5415/57 ING/000000000 - 3,5415/57 ING/0000000000 - 3,5455/57	42 Process cpcls time (Dayd) 1 723 725 725 725 725 725 725 725 725	DC Intributes Functions (Fiber (1.9.4)	Process Mentification Process cycle time (Dapp) Number of UMA000000000 3_345500 356.3 UAA000000000-3_345500 361.3 UAA000000000-3_340035 361.4	EX Attacks Function Fire durt Ferraries
AAGA0000000000 3,3447967 AAGA000000000 3,379819 AAGA000000000 3,37985 AAGA000000000 3,379811 AAGA0000000000 3,379811 AAGA0000000000 3,3547980 AAGA0000000000 3,3547980	72.5 72.4 72.4 72.4 72.4 72.4 72.4 72.4 72.4	Hira of Ire		
AMAGEORODONIO - 3 540-543 AMAGEORODON - 3 74803 AMAGEORODONIO - 3 74803 AMAGEORODONIO - 4 75803 AMAGEORODONIO - 4 75803 AMAGEORODONIO - 3 75823 AMAGEORODONIO - 3 75823 AMAGEORODONIO - 3 75823 AMAGEORODONIO - 3 75823 AMAGEORODONIO - 3 75823	724 723 723 723 723 723 723 723 722 722 722			THE REAL PROPERTY OF
UNCARDODODODO-1, SHAF723 UNCARDODODODO-3, SHAF728 UNCARDODODODO-3, SHAF728 UNCARDODODODO-3, SHAF728 UNCARDODODODOD-3, SHAF728 UNCARDODODODOD-3, SHAF728 UNCARDODODODOD-1, SHAF92	723 723 724 723 723 723 728 728			

#### Example: EPC benchmark on process cycle time

### 6.14 Process variants

With version 10.1 PPM provides the process variants feature with the new Variants bar as additional analysis tool.

### 6.14.1 Variants bar

Use the Variants bar to get an overview of the most typical process variants, to identify irregular processes, and to analyze them for, for example, critical outliers. Accordingly, you can select variants for filtering your current analysis.

The Variants bar contains all process variants of your analysis, taking your current filter settings into account. It shows how often certain process variants occur in your analysis and shows their frequency graphically and numerically. You can set the scaling of the variant values (linear or logarithmic) to adjust the bars displayed (context menu () -> Preferences).

The variants are listed descending by their frequency on one or more pages of the Variant bar. The number of variants displayed per page can be set (context menu (¬) -> Preferences).

The variants listed depend on the variant dimension level selected. Variant has two dimension levels, Combined variant (rough step width) and Precise variant (refined step width), and the Name as dimension value. The Combined variant level is set initially. The dimension level can be changed in the context menu ( $\checkmark$ ).

#### 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,....

Similar to other dimensions, you can set a filter for the Variant dimension. (See Introduction to filters for details.) The filtered variant dimension values are highlighted graphically. But only the filtered variants of the selected dimension level are displayed.

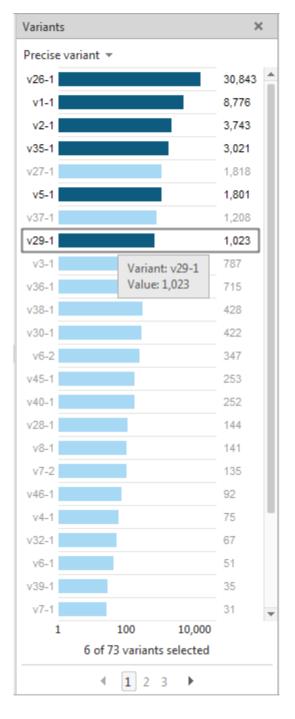
#### Example

The filter set for the variant dimension contains the following values: v1; v4; v6-3; v12-1. If the Combined variant level is selected only the values v1 and v4 are displayed. If you switch to the Precise variant level the values v6-3 and v12-1 are displayed.

The variant vO(n/a) shows the number of all variants without values assigned (values are "not maintained"). The variant vO(n/a) is always displayed at the end of the dimension value list.

The "Others"-entry informs you how many other variants exist besides those listed and (in brackets) how many process instances are covered by these other variants. If the number of dimension values exceeds this maximum of displayed values (Default is 5000) an "Others"-entry is added at the end of the variants list. The entry is not selectable.

The Variants bar is only available if the Variant dimension is configured in PPM.



#### Example: Variants bar with six precise variant values selected for filtering

### 6.14.2 Use variants

You can use the Variants bar to identify the most frequently executed processes and critical outlier.

The following example based on a function flow diagram shows how you can use the Variants bar for your analyses. You can use the function flow diagram to analyze the

sequence of activities within your business processes. This view enables you to clearly display and evaluate the process structure and the relationship between the activities.

### DISPLAY VARIANTS BAR

Procedure

- 1. Open the Interaction analysis realm.
- 2. Display the Base tab bar.
- 3. Click 🖸 New.
- 4. Double click the Function flow button.
- 5. Specify your settings and click Finish. Select Order processing as process instances and Function cycle time (relation) as measure.

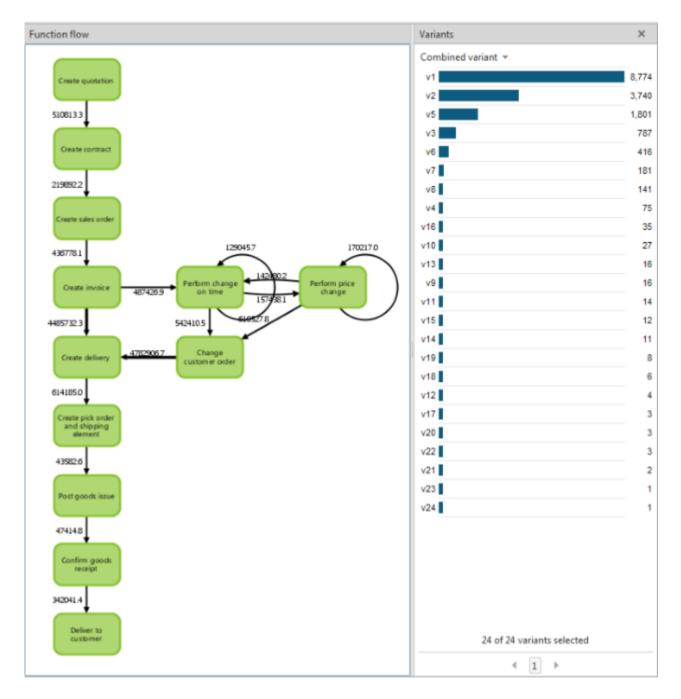
The function flow diagram is displayed.

6. Click the 🖪 Variants button if the Variants bar is not already displayed.

The Variants bar is displayed with all process variants of the current analysis.

### Example

Initially all existing variants of the created function flow are preselected in the Variants bar. The function flow displayed is the aggregated function flow across all variants.



### COMPARE PROCESS VARIANTS

Filtering one or more variants in the Variants bar enables you to compare and analyze individual process variants. The comparison of several process variants helps you to identify weaknesses and problems in your business processes.

Process variant v1 is the most frequently executed process variant and therefore probably the planned target process. You can display the v1 variant of the function flow and compare it with other process variants by using the Clipboard panel.

#### Procedure

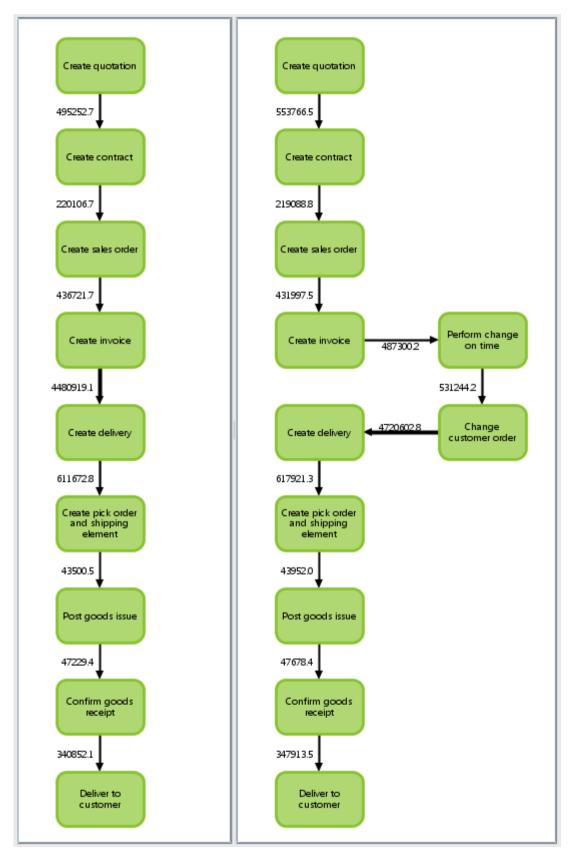
1. Click the 📋 Clipboard button to display the Clipboard panel and Clipboard tab.

- 2. Click the v1 variant in the Variant bar. The filtered v1 variant of the function flow is displayed.
- 3. Activate the Clipboard tab and click the 😨 Add button. The filtered function flow is added to the clipboard.
- 4. Click again the v1 variant in the Variant bar to cancel the selection.
- 5. Click the v5 variant in the Variant bar. The filtered v5 variant of the function flow is displayed.
- 6. Click the Add button in the Clipboard tab. The filtered function flow is added to the clipboard.
- 7. Click the **I** Benchmark button in the Clipboard tab.

Both variants are displayed in a separate window.

### Example

The direct comparison shows a significant deviation of variant v5 (on the right-hand side) to variant v1 (the planed target process).



Based on the variants analysis, you can further extend your analyses, for example, you could perform an outlier analysis to identify the cause of the error.

## 6.14.2.1 Variants in scaled systems

Each sub-server in a scaled system (sub-server and master-server scenario) calculates its own process variants. If a sub-server is not connected to the master-server and a new variant is calculated, the variant receives a sub-server specific name with the letter s. Variants with the same name of the different sub-servers do not necessarily have to be identical. For example, the variant s1 of sub-server 1 does not have to be identical to variant s1 of sub-server 2.

The common master-server consolidates the various sub-server variants, provided the sub-servers are connected to the master server. Variants that are consolidated in the sub-servers are marked with the letter v. Variants with the same name and the letter v are identical on all sub-server. Sub-server variants are automatically consolidated during the next import cycle of a sub-server with a connected master.

# 7 General handling

This chapter contains information on the general handling and basic functions of PPM.

# 7.1 Quick-start an analysis

Use default queries to start a predefined analysis and customize it in line with your requirements.

Each analysis realm provides you with a specific, predefined analysis if it was created during client customizing. When you open process analysis or a Data analytics analysis realm for the first time, the default query is displayed immediately. When you open it again, the analysis you last configured is displayed.

#### Procedure

- 1. Display the PPM start page.
- 2. Open the relevant analysis realm.

When you open the interaction analysis, click  $\overleftrightarrow{a}$  Start.

The default query with the predefined settings is displayed in the analysis realm.

As in all other analyses, you can replace and set measures, dimensions, filters, etc., in the default query.

You can display the predefined default query again any time.

# 7.2 Adapt user interface

PPM provides you with various options for adapting the user interface to meet your requirements.

You can place individual bars and views at a particular position using drag and drop, combine multiple bars, show or hide bars and adjust their size.

- Move views (page 39)
- Swap views (page 39)
- Adjust view size (page 39)
- Move bars (page 40)
- Combine bars (page 40)
- Show and hide bars (page 40)
- Adjust bar size (page 41)

- Show and hide tab bars
- Change tab order (page 41)

When you exit an analysis realm your bar position settings will be saved.

You can restore the original bar positions (page 42).

### 7.2.1 Move views

You can move individual views in a multi-panel analysis using drag and drop.

Procedure

- 1. Create a multi-panel analysis.
- 2. Click in the header of a view.
- 3. Hold down the mouse button and move the view to the relevant position using drag and drop.

A frame with the label Insert view is displayed where the bar will be positioned. The view is moved to the selected position.

## 7.2.2 Swap views

You can swap the position of individual views in a multi-panel analysis using drag and drop.

Procedure

- 1. Create a multi-panel analysis.
- 2. Click in the header of a view.
- 3. Hold down the mouse button and use drag and drop to move the view to the center of a view whose position you want to swap.

A frame with the label Swap view is displayed.

The positions of the two views are swapped.

## 7.2.3 Adjust view size

You can adjust the width and height of the individual views in a multi-panel analysis.

Procedure

- 1. Create a multi-panel analysis.
- 2. Move the mouse pointer on the separating line of a view.

3. Move the separating line in the relevant direction while holding down the mouse button. The size of the view is automatically adjusted.

### 7.2.4 Move bars

You can move individual bars using drag and drop.

Procedure

- 1. Click in the header of a bar.
- 2. Hold down the mouse button and move the bar to the desired position using drag and drop.

A frame is displayed at the location in which the bar will be positioned.

The bar is moved to the selected position.

### 7.2.5 Combine bars

You can combine multiple bars into one single bar. The bars are displayed as individual tabs in the new bar.

Procedure

- 1. Click in the header of a bar.
- 2. Hold down the mouse button and use drag and drop to move the bar to the desired area or bar you want to combine it with.

A frame is displayed around the selected bar.

The two bars are displayed as individual tabs in the new bar.

Click the title of a tab to display the bar.

## 7.2.6 Show and hide bars

You can hide bars that are not required for your current analysis and show them again later. Thus, you create more space for displaying the analysis area.

Procedure

#### HIDE BARS

1. Display the View tab bar.

Click the button with the name of the bar you want to hide, for example, the Favorites (\*) bar.

The selected bar is hidden.

Alternatively, you can click 🗙 Close in a bar's title bar.

### SHOW BARS

- 1. Display the View tab bar.
- Click the button with the name of the bar you want to show, for example, the Favorites (\*) bar.

The bar is displayed.

Тір

Use the bar at the right side of the work area to quickly show and hide bars.

Click the corresponding button in the bar, for example, Favorites (\*).

Click > Hide bars to hide all bars that are currently displayed.

## 7.2.7 Adjust bar size

You can adjust the width and height of the bars.

Procedure

- 1. Move the mouse pointer on the separating line of the bars.
- 2. Move the separating line in the relevant direction while holding down the mouse button. The size of the bar is adjusted.

# 7.2.8 Change tab order

You can change the order of the tabs displayed in a bar.

Procedure

- 1. Click the tab header.
- 2. Use drag and drop to move the tab to the position in which you want to place it.

The tab is moved to the selected position.

# 7.2.9 Restore bar positions

You can restore the original positions of the various bars.

Procedure

- 1. Display the View tab bar.
- 2. Click the Reset bar positions button.
- 3. Click Reset.

PPM closes automatically.

4. Restart PPM to restore the original bar positions.

After restarting PPM, the bars will be displayed at their original positions.

## 7.3 Quickly find entries in lists and tree structures

You can use the keyboard to quickly find entries in various bars, certain dialog boxes, and tables.

Procedure

- 1. Click the first entry in the interface element that you want to search, for example, the first row in a table.
- 2. Then enter the first few letters of the word you want to find.

The selection will jump to the first position that begins with the letter combination you entered.

In some interface elements, such as the Dimensions and Measures bars, you can use custom search boxes to browse the list displayed.

# 8 Legal information

## 8.1 Documentation scope

The information provided describes the settings and features as they were at the time of publishing. Since documentation and software are subject to different production cycles, the description of settings and features may differ from actual settings and features. Information about discrepancies is provided in the Release Notes that accompany the product. Please read the Release Notes and take the information into account when installing, setting up, and using the product.

If you want to install technical and/or business system functions without using the consulting services provided by Software AG, you require extensive knowledge of the system to be installed, its intended purpose, the target systems, and their various dependencies. Due to the number of platforms and interdependent hardware and software configurations, we can describe only specific installations. It is not possible to document all settings and dependencies.

When you combine various technologies, please observe the manufacturers' instructions, particularly announcements concerning releases on their Internet pages. We cannot guarantee proper functioning and installation of approved third-party systems and do not support them. Always follow the instructions provided in the installation manuals of the relevant manufacturers. If you experience difficulties, please contact the relevant manufacturer.

If you need help installing third-party systems, contact your local Software AG sales organization. Please note that this type of manufacturer-specific or customer-specific customization is not covered by the standard Software AG software maintenance agreement and can be performed only on special request and agreement.

# 8.2 Support

If you have any questions on specific installations that you cannot perform yourself, contact your local Software AG sales organization

(https://www.softwareag.com/corporate/company/global/offices/default.html). To get detailed information and support, use our websites.

If you have a valid support contract, you can contact Global Support ARIS at: +800 ARISHELP. If this number is not supported by your telephone provider, please refer to our Global Support Contact Directory.

### ARIS COMMUNITY

Find information, expert articles, issue resolution, videos, and communication with other ARIS users. If you do not yet have an account, register at ARIS Community.

### SOFTWARE AG EMPOWER PORTAL

You can find documentation on the Software AG Documentation website (https://empower.softwareag.com/). The site requires credentials for Software AG's Product Support site Empower. If you do not yet have an account for Empower, send an e-mail to empower@softwareag.com with your name, company, and company e-mail address and request an account.

If you have no account, you can use numerous links on the TECHcommunity website. For any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory and give us a call.

### TECHCOMMUNITY

On the TECHcommunity website, you can find documentation and other technical information:

- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Access articles, code samples, demos, and tutorials.
- Find links to external websites that discuss open standards and web technology.
- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify Documentation as an area of interest.

### EMPOWER (LOGIN REQUIRED)

If you have an account for Empower, use the following sites to find detailed information or get support:

- You can find product information on the Software AG Empower Product Support website.
- To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the Knowledge Center.
- Once you have an account, you can open Support Incidents online via the eService section of Empower.
- To submit feature/enhancement requests, get information about product availability, and download products, go to Products.

### SOFTWARE AG MANAGED LEARNINGS

Get more information and trainings to learn from your laptop computer, tablet or smartphone. Get the knowledge you need to succeed and make each and every project a success with expert training from Software AG.

If you do not have an account, register as a customer or as a partner.