ARIS PROCESS PERFORMANCE MANAGER

PPM PROCESS CONFORMANCE CHECKING WITH ARIS

VERSION 10.4

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Contents

1 General

This manual describes how to perform a process conformance check (page 2) and which prerequisites must be fulfilled. The document is addressed to the business user and the system administrator of the required ARIS products. The business user can perform a performance check based on the system customized by the system administrator.

BUSINESS USER

The business user learns how to

- prepare the required process data in ARIS Architect.
- transfer the process data to PPM.
- perform a conformance analysis in PPM.
- create a dashboard in ARIS Aware to visualize the process data.

The business user should be familiar with the general handling of the described products (ARIS Architect, PPM, and ARIS Aware).

For information on the general use of these products, refer to the online help and technical documentation.

SYSTEM ADMINISTRATOR

The system administrator learns how to

- import the required configuration elements into PPM.
- customize the PPM client configuration.
- calculate and import the process data into PPM.

The system administrator should be familiar with the handling of PPM Customizing Toolkit.

For information on using the CTK, refer to the technical documentation of PPM.

EXAMPLES

The examples described in this manual are based on the financial service processes to improve the car loan banking at United Motor Group (UMG). The ARIS models used in the examples are located in the **United Motor Group** demo database. The corresponding examples in PPM are available in the PPM demo client **umg_en**.

2   Process conformance

The process conformance analyzes whether an executed and measured process instance is compliant with a designed process model in ARIS.

ARIS is the main repository for modeling target (to-be) processes. These reference processes are modeled using the **EPC** or **BPMN** (page 13) model types. PPM is used to discover and analyze executed processes. PPM does this by extracting data from source systems. These source systems may provide function names that differ from the modeled function names in ARIS. In order to monitor the process flow in PPM in line with the reference process, you must map the modeled ARIS function names to the PPM function names and import the target process together with this mapping into PPM.

The ARIS reference model and a mapping of ARIS GUIDs to function names are extracted from ARIS and transferred to PPM. The combination of process type, function mapping, target process, and (optional) ARIS function exclusion list is described here as the **process conformance configuration**. The process conformance configuration is transferred to PPM and is used to calculate the new conformance measures and dimensions in PPM. The process conformance is calculated when the process data is imported into PPM.

The following figure shows the individual steps for performing a process conformance analysis (page 6).
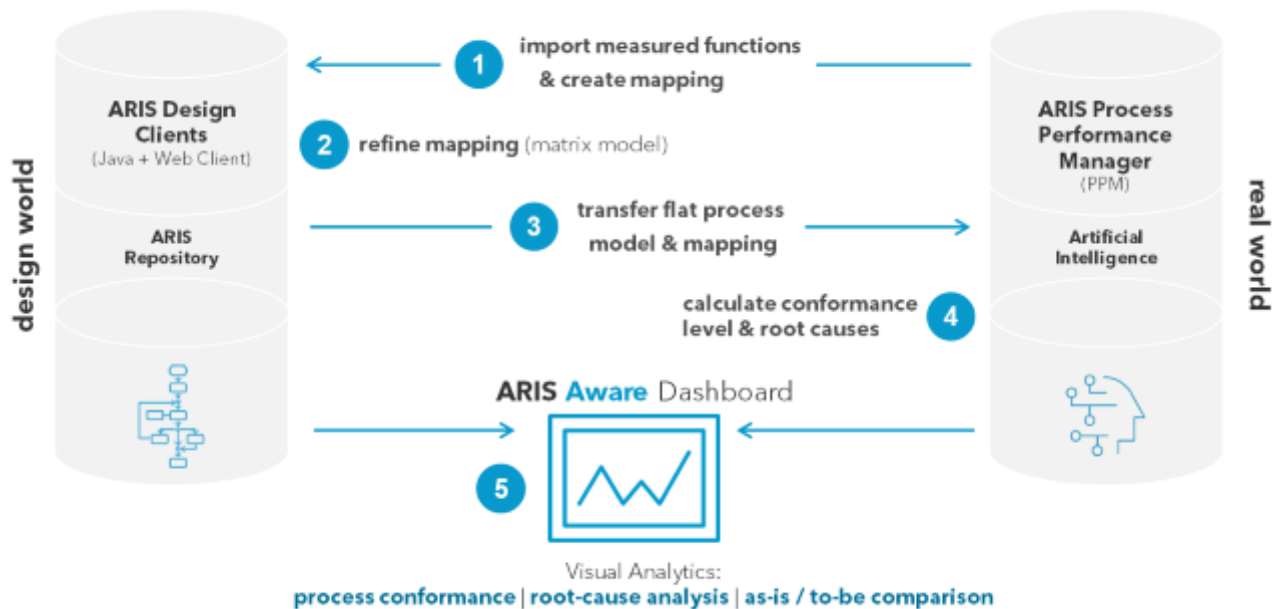
2.1 Conformance rate

The output of the conformance calculation is the **Conformance rate** measure aggregated by average, with the two possible values 0.0 (non-conformant) and 1.0 (conformant). The conformance rate, for example, could have a value of 0,87, that is 87%, of all process instances available are conformant to the reference process.

The ARIS reference model establishes the order in which functions should be executed. This order is not a simple linear sequence, however, because the model may contain splitting AND rules. The branches emanating from such rules may be executed in parallel, so that there are many execution sequences that are compatible with such a rule. Joining rules, on the other hand, are synchronization points: They indicate that execution of all functions in the incoming branches must have terminated before any function that follows a joining rule is executed.

The conformance check converts a process instance into a linear sequence of functions. It then determines whether each step in the functional sequence corresponds to the order of these functions in the reference model. If one or more PPM functions are excluded from the conformance check (page 11), the corresponding functions are also removed from the sequence of functions of the process instance. If all functions have been excluded, PPM cannot calculate the conformance rate. Furthermore, in order to be considered conformant, the last step must terminate in one of the end events modeled for the process. This implies that unfinished processes (that is, processes that require further imports to be completed) are most likely classified as non-conformant.

The conformance check distinguishes between different reasons for the non-conformance of process instances (page 3).

2.2 Conformance issues

The conformance check identifies possible reasons why a sequence of functions does not conform to a reference model. The reasons for the non-conformance are called **conformance issues**.

There are four different types of conformance issues.

Example

The following figure shows a schematic EPC with the start function **S** and the end function **E.** The EPC is the reference model for the examples of the non-compliance types described below.
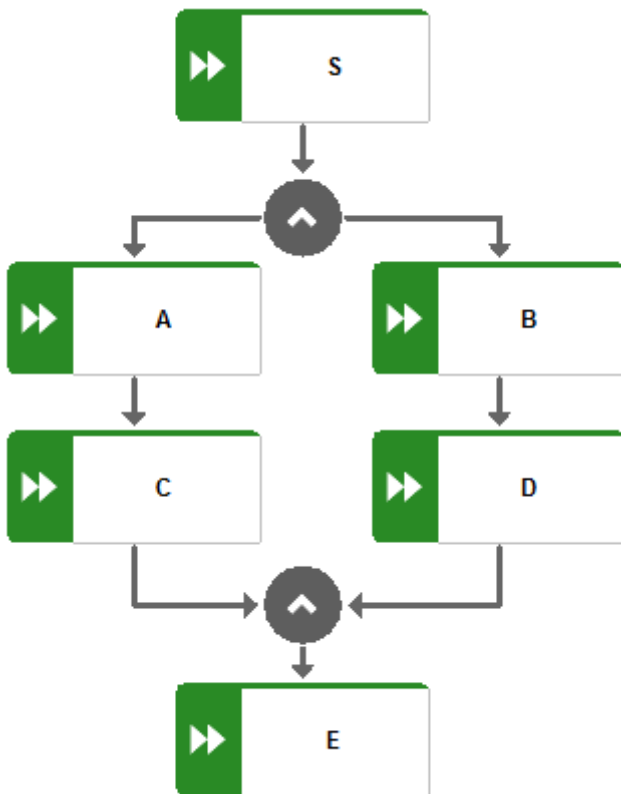
- Non-compliance type I

  A particular pair of functions occurs in the wrong order.
  This issue is signaled by the dimension value **ShouldNotFollow**.

  Example

  The process step A **should not follow** process step C.

  non-conformant function order: S,C,A,B,D,E

- Non-compliance type II

  The process instance starts with a wrong function.
  This issue is signaled by the dimension value **ShouldNotStartProcess**.

  Example

  Process instance **should not start with** process step E.

  non-conformant function order: E,A,C,B,D,E

- Non-compliance type III

  All steps of the process instance are terminated, but no end event is reached. This indicates an incomplete process.
  This issue is signaled by the dimension value **ShouldNotEndProcess**.

  Example

  The process instance **should not end with** process step D.

non-conformant function order: S,A,C,B,D

- Non-compliance type IV

  A function in the process instance is not part of the function mapping and therefore cannot match any model function.
  This issue is signaled by the dimension value **ShouldNotOccur**.

  Example

  Process type Z **occurs**. If Z is not part of the model, any process that includes Z falls into this category.

  non-conformant function order: S,A,C,B,Z,D,E

Note that due to the algorithmic complexity, the conformance issues are reported on a best-guess basis. This means, there may be more reasons for non-conformance than PPM reports.

The conformance issue types are contained in the **Conformance issue type** dimension. The conformance issue itself is characterized by the type and one or two PPM function names contained in the dimensions **Non-conforming function** and **Preceding function** (only for ShouldNotFollow).

Example

In the example below, there are two conformance issues. Both are caused by the **Authorize payment** function that follows the **Create contract** function in the process instance, although the process was modeled in a different order.

Non-conforming function	Conformance issue type	Preceding function	Number of conformance issues
Authorize payment	ShouldNotFollow	Create contract	2

2.3   Process conformance analysis

You can analyze your process conformance using PPM (page 14). The new **Conformance rate** (page 3) measure and **Conformance issue type** (page 3) dimension are provided in PPM like all other criteria and are handled analogously. For example, you can use filters to see the conformance of just a particular subset of process instances.

Alternatively or in addition to PPM you can use ARIS Aware in ARIS Connect to visualize your analysis (page 17). ARIS Aware provides the dedicated PPM data source operator with which you can access the process data of PPM and use it to analyze the conformance of your processes. The new conformance measure and dimension can be queried as usual from PPM and included in your dashboards.

3 How to perform a process conformance analysis

Before you can perform a process conformance analysis, you must prepare the process data in ARIS Architect and import it into PPM. The imported data is also available for later analyses. You do not have to perform this procedure for every conformance check, but only if you change the process data that you want to analyze, for example, if you want to analyze the **Billing** processes instead of the **Financial service** processes.

Usually the PPM import process is performed automatically and your process data is available in PPM with the next scheduled data import. Otherwise, you must import the process data manually into PPM (page 22). Please ask your PPM system administrator to import PPM data.

Prerequisites

- You have installed PPM version 10.2 or higher and the required PPM client server is running.

- You have installed ARIS Architect version 10.0 service release 2 or higher.

- The relevant PPM client is configured for the process conformance check. (page 20)

Procedure

1. Prepare the process data in ARIS Architect.

   For details, see chapter **Prepare the process data in ARIS Architect** (page 6).

2. Perform your process conformance analyses in PPM based on the new **Conformance rate** measure and **Conformance issue** relation.

   For details, see chapters **Analyze your processes for conformance in PPM** (page 14).

3. Create a dashboard to visualize your process data in ARIS Aware.

   For details, see **Create dashboards in ARIS Aware** (page 17).

You have performed a process conformance analysis.

3.1 Prepare the process data in ARIS Architect

ARIS Architect provides two reports to create the models and the data required for the process conformance configuration.

- **Select PPM process type and create function mapping** (page 24) report

  The report creates the ARIS reference model and a mapping of ARIS functions to PPM function names.

- **Transfer process model and mapping information to PPM** (page 24) report

  The report exports the corresponding configurations and imports them into PPM.

The reports are located in the **Administration** > **Evaluations** > **Reports** > **PPM Integration** report category.

The following data are required to run the ARIS reports.

- The user name and corresponding password of a PPM user.

- The base URL of the PPM server.

  Examples

http://ppmhost.eur.ad.sag:4080

https://ppmhost.eur.ad.sag:4443

http://ppmhost.eur.ad.sag or https:/ppmhost.eur.ad.sag if default ports are being used.

- The PPM client name, for example, umg_en or my_PPM_client.

Prerequisites

- To run the ARIS reports, you must have the following privileges in PPM:

the **Conformance configuration** function privilege.

the process access privilege for the appropriate process type or process type group.

the PPM user privilege in the ARIS Administration.

- The PPM user must be activated in PPM. For details, see chapter **Privilege management** in the PPM online help.

Procedure

1. Run the **Select PPM process type and create function mapping** report on a process of type **EPC** or **BPMN** (page 13).

   Using this report, you select a PPM process type, process type group, or the process tree root. The report reads the function names related to the process type selected and imports the data. In an ARIS matrix model, the imported PPM functions are automatically mapped to the ARIS functions of the same name. The generated data is stored in a group specified when the report is executed.

   For details, see chapter **Import measured functions and create mapping** (page 7).

2. Check the function mapping generated by the report and adapt it manually, if applicable.

   For details, see chapter **Refine mapping** (page 11).

3. Run the **Transfer process model and mapping information to PPM** report on the process created by the first report.

   The report transfers the process model (to-be) belonging to a PPM process type (as-is), a corresponding mapping of ARIS objects to PPM objects to PPM, and optional a list of ARIS functions (page 11) that are to be ignored in the conformance check. This transfer is the basis for checking whether all process instances performed in conformance with the originally planned process.

   For details, see chapter **Transfer flat process model and mapping** (page 12).

The process data is prepared for import in PPM.

3.1.1   Import measured functions and create mapping

You can use the **Select PPM process type and create function mapping (page 24)** report to import functions created in ARIS Process Performance Manager (PPM) into ARIS Architect. You

can select a process model of type **EPC** or **BPMN** (page 13) and map its functions to the functions used in a PPM analysis. The function mapping generated is displayed in an ARIS matrix model and manually editable. In PPM the functions are registered at process types and process type groups. You can use the report to select the corresponding process type or process type group whose functions you want to import.

You can set the parameters used in the **Select PPM process type and create function mapping** (page 24) report. The parameters are preset with default values used in PPM. If you want to change the preset parameters, you can create further parameter value pairs. For details, see **Specify report parameters** (page 25).

Example

Within the **United Motor Group** demo scenario, you can select the **Car loan application (to-be)** EPC as a reference model for your process conformance analysis. The EPC is located in the following group.

United Motor Group -> **Main group** -> **2.Processes** -> **2.1 Processes architecture** -> **Core processes** -> **Financial services (to-be)** -> **Car loan application (to-be)**

- Please ask your PPM system administrator for the required user name and password and the PPM server URL. The demo client name is **umg_en**.

- In the **Select PPM process type** dialog, select **Processes** -> **Financial services** -> **Car Loan Application**. The functions of these processes are imported in ARIS and mapped to the functions of the selected EPC.

Procedure

1. Specify the parameters to be used (page 25) in the **Select PPM process type and create function mapping** report, if required.

2. Run the **Select PPM process type and create function mapping** report with a process selected. Processes connected via a process interface are taken into account.

   a. Log in to an ARIS model database.

   b. Select one or more processes in the database.

   c. Right-click the processes selected.

   d. Click **Evaluate > Start report**. The Report Wizard opens.

   e. Select **PPM integration** in the **Category** menu.

   f. Select the **Select PPM process type and create function mapping** report.

   g. Click **Next**.

   h. Specify the output settings. Select the parameter value pairs to run the report with the parameters required.

   i. Click **Finish**. The **Select PPM process type and create function mapping** report opens.

   j. Specify your settings. The Report Wizard guides you through the relevant steps.

   k. Click **Finish**.

   l. Select a process type or process type group to import the corresponding functions.

m. Click **OK**.

n. If you run the report on a BPMN collaboration diagram (page 13), you must select the process for your conformance check in a separate dialog. Select a pool that contains a process or a process that is outside the pools. The dialog is displayed, if the BPMN collaboration diagram contains more than one process.

o. Click **OK**.

p. Select a group to save the matrix model as well as the EPC, or BPMN model to be created.

q. Click **OK**.

The **Select PPM process type and create function mapping** report is run. The matrix model and a created EPC or BPMN model are stored in the output folder selected.

Example

The following figure shows the original EPC (on the left-hand side) and the EPC generated by the report. The generated EPC contains only the functions (and related events) of the selected ARIS model and the functions available in PPM. All non-required objects, such as attributes or organizational units, are removed.
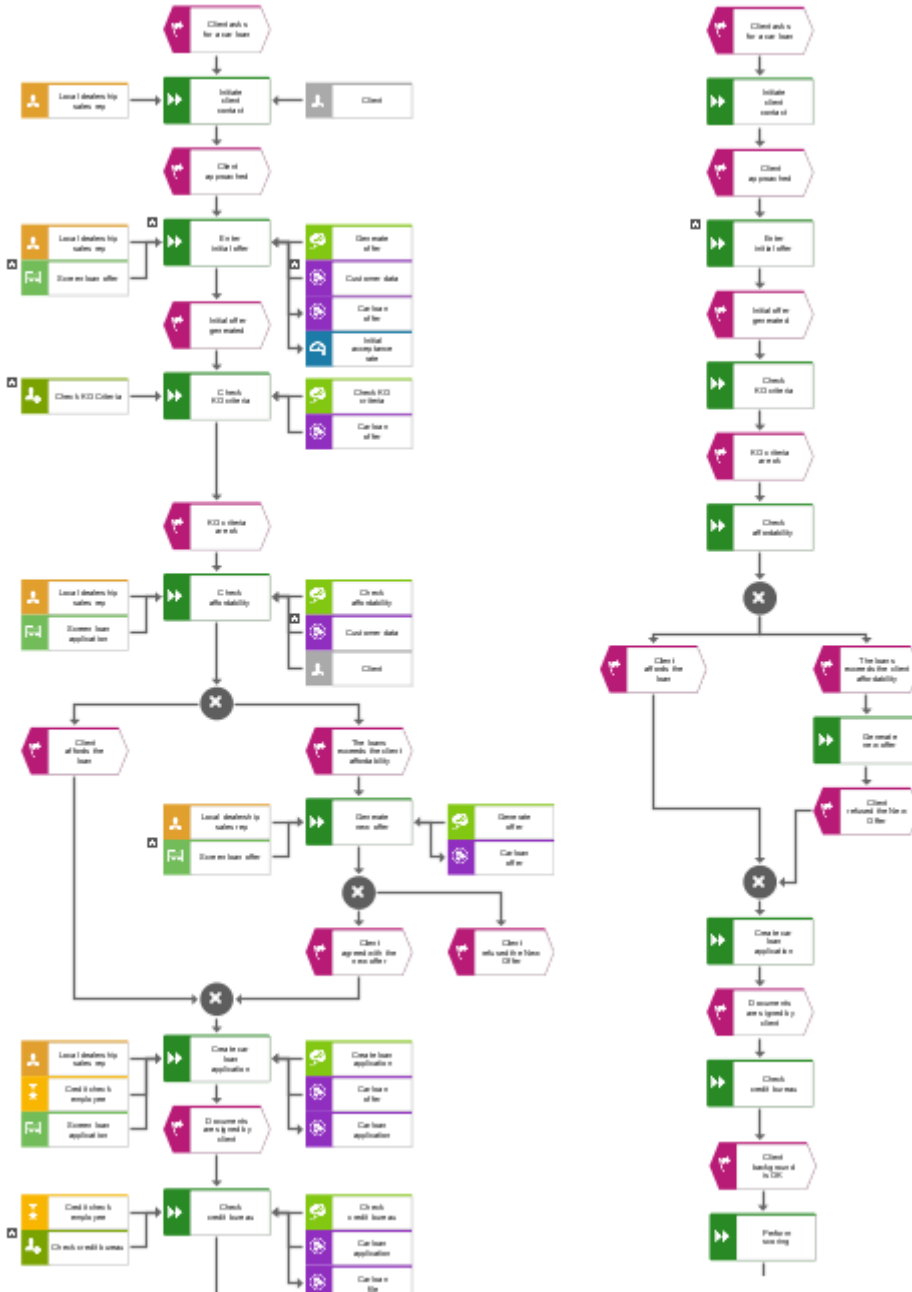
3.1.2   Refine mapping

You can manually edit the matrix model generated by the ARIS report, for example, by adding new functions, or by excluding some functions from the mapping.

The matrix model allows you to exclude ARIS and PPM functions that are not to be considered in the conformance check, for example, if <_aris> functions are not known to PPM. That means that the target (to-be) process contains functions that must be performed manually and that cannot be processed in PPM. By excluding some functions from the conformance check, you can ensure that the conformance check does not classify too many processes as "not compliant". PPM functions that were excluded from the function mapping are also removed from the PPM process instances and are not taken into account when calculating the conformance rate (page 3).

For detailed information on using the matrix editor, see the ARIS Architect online help.

Procedure

1. Open the ARIS matrix model generated by the ARIS report, for example the created **Car loan application (to-be)** matrix model in the **My conformance check** group.
2. Specify your settings.

    In the **Ignore** row, you can exclude functions from the conformance check.
3. Save your settings.

Your settings are applied.

Example

The following example shows the mapping of the functions of the same name that are imported from PPM and the functions available in the selected **Car loan application (to-be)** EPC in ARIS.

PPM \ ARIS	Ignore	Check affordability	Check KO criteria	Inform client about rejection	Generate new offer	Request supplementary documents	Enter initial offer	Perform scoring	Disburse the loan in car dealer's account	Check completeness of loan file	Initiate client contact	Analyse the file for decision	Check credit bureau
Ignore													
Analyse the file for decision												✔	
Check KO criteria			✔										
Check affordability		✔											
Check completeness of loan													
Create car loan application													
Disburse the loan to dealer													
Enter initial offer							✔						
Generate new offer					✔								
Inform client about approval													
Inform client about rejection				✔									
Perform scoring								✔					
Request missing documents													
Request supplementary docs													

3.1.3 Transfer flat process model and mapping

You can use the **Transfer process model and mapping information to PPM** report to transfer both the process model (to-be) belonging to a PPM process type (as-is) and a corresponding mapping of ARIS objects to PPM objects to PPM. This transfer is the basis for checking whether all process instances were run in conformance with the originally planned process.

The report is run on the **EPC** or **BPMN** (page 13) model created by the **Select PPM process type and create function mapping** (page 24) report.

You can set the parameters used in the **Transfer process model and mapping information to PPM** report. The parameters are preset with default values used in PPM. If you want to change the preset parameters, you can create further parameter value pairs. For details, see Specify report parameters (page 26).

Example

Select the created EPC in the specified **My conformance check** group and run this report.

Use the same PPM user credentials and PPM settings as for the **Select PPM process type and create the function mapping** (page 7) report.

Procedure

1. Specify the parameters to be used (page 26) in the **Transfer process model and mapping information to PPM** report, if required.

2. Run the **Transfer process model and mapping information to PPM** report on the EPC or BPMN (page 13) model created by the **Select PPM process type and create function mapping** (page 24) report.

   a. Log in to an ARIS model database.

   b. Open the folder containing the model you want to transfer to PPM.

   c. Select the model.

   d. Right-click the model selected.

   e. Click **Evaluate > Start report**. The Report Wizard opens.

   f. Select **PPM integration** in the **Category** menu.

   g. Select the **Transfer process model and mapping information to PPM** report.

   h. Click **Next**.

   i. Specify the output settings. Select the parameter value pairs to run the report with the parameters required.

   j. Click **Finish**. The **Select PPM process type and create function mapping** report opens.

   k. Specify your settings. The Report Wizard guides you through the relevant steps.

   l. Click **Finish**.

The **Transfer process model and mapping information to PPM** report is run. The data of the model selected and the corresponding function mapping information are transferred to the PPM server.

Once the data has been transferred, you can perform the conformance check and import the result into the PPM Client using CTK (page 22).

3.1.4   How are BPMN models handled?

The handling of BPMN models is largely the same as that of processes of the **EPC** type. (page 6) One exception is the BPMN collaboration diagram. If the selected BPMN collaboration diagram contains more than one process, you must also select the process for which you want to perform

the conformance check. The BPMN collaboration diagram can contain multiple processes, each located in separate pools or outside the pools.

The selected BPMN model is automatically converted into a BPMN model that complies with EPC conventions. For example, pools used in BPMN collaboration diagrams are removed by ARIS. The created BPMN model in ARIS contains an EPC-compliant process, but still uses BPMN symbols. When importing into PPM, the BPMN symbols are replaced, and additionally multiple incoming connections of functions, and gateways are replaced by rules.

PPM converts the following gateways in BPMN models into rules for EPCs:

- Exclusive-Gateway => XOR

- Parallel Gateway => AND

- Inclusive Gateway => OR

The following gateways in BPMN models are not converted. Models that use these rules are rejected in PPM.

- Complex gateway

- Event-based gateway

- Gateway

- Instantiating event-based Gateway

- Instantiating parallel event-based Gateway

For more information on the **BPMN** and **EPC** model types, see the ARIS online help.

SUPPORTED BPMN MODEL TYPES

You can use the following BPMN model types for a process conformance check.

- BPMN collaboration diagram (BPMN 2.0)

- BPMN process diagram (BPMN 2.0)

- Enterprise BPMN collaboration diagram

- Enterprise BPMN process diagram

3.2 Analyze your processes conformance in PPM

You can analyze your process conformance using the **Conformance rate** (page 3) measure and the **Conformance issue type** (page 3) dimension that are provided in PPM. In addition, you can configure a relation that shows possible reasons for the failure of a conformance check, for example, to see how often a certain function has been responsible for making a process non-conformant, and in what way.

For general information on how to perform an analysis, see the PPM online help.

3.2.1 Analyze the conformance rate

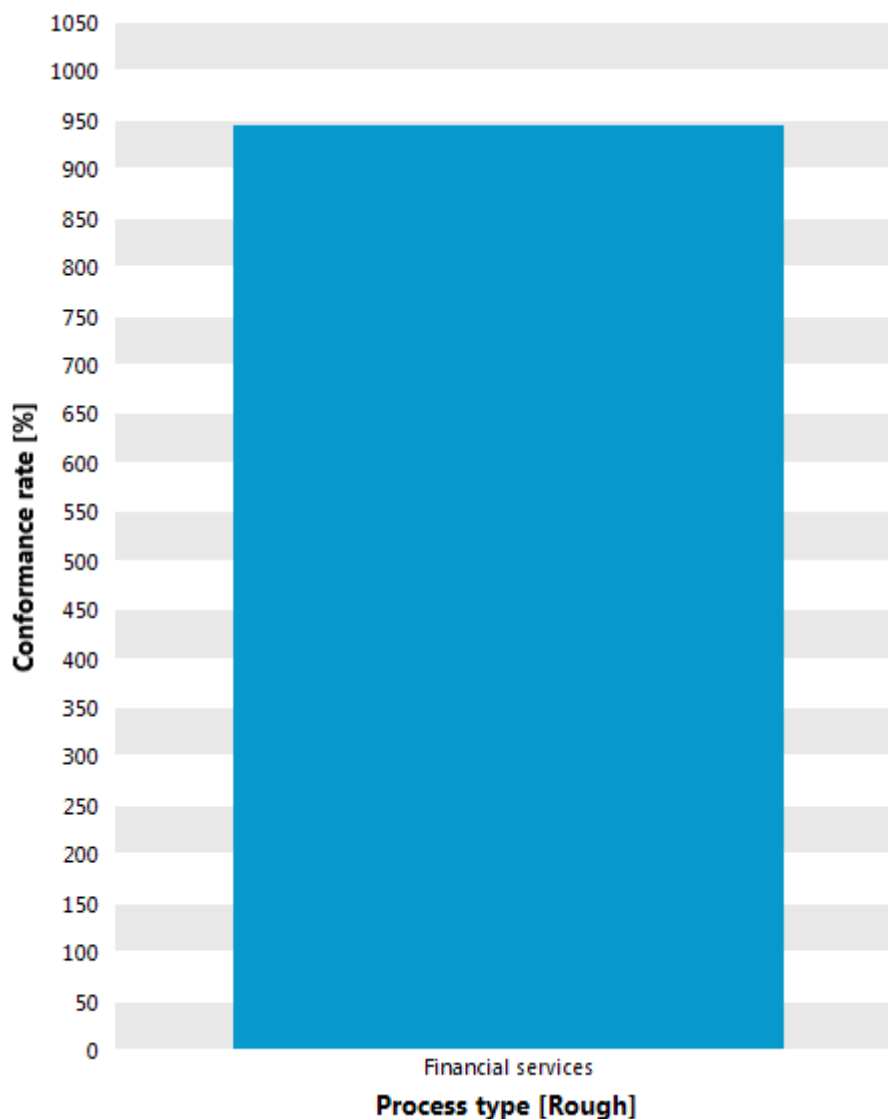You can analyze the conformance rate in the **Process analysis** realm of PPM.

Procedure

1. Open the client for whose processes you want to analyze the conformance in PPM, for example, the **umg_en** demo client.

2. Open the **Process analysis** realm.

    The realm opens on a separate tab and a predefined analysis is displayed.

3. Select the process type for your conformance check in the **Processes** bar, for example, Financial services.

    By default, the **Processes** root in the process tree is preselected and set as filter in the analysis. This means that all available processes are analyzed. When you make your selection, the filter is limited, for example, to the **Financial services** process type.

4. Drag the **Conformance rate** measure in the **Measures** bar and drop it on the **Number of processes** measure preset in analysis. The preset measure is replaced by the measure you selected.

    The chart shows a conformance rate of around 95% for the financial service processes. This means that the real processes do not fully match your reference process.

5. Replace the **Process type** dimension with the **Dealer** dimension to see more details.

   The chart now shows the conformance rate for each of your dealers. You can see that the process conformance of some dealers is very different.
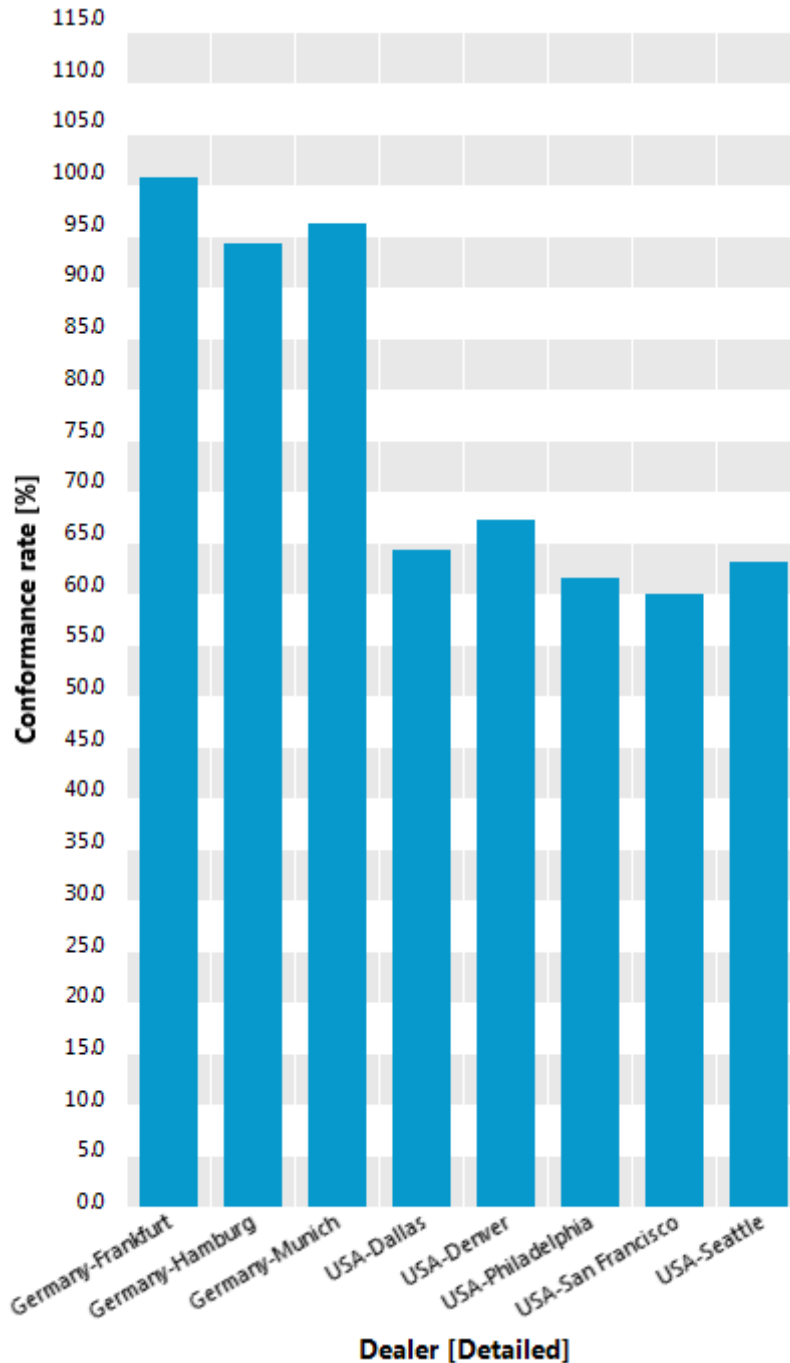
6. Create a favorite for your current analysis.

   You can use the favorite to create a dashboard in ARIS Aware.

You have performed a basic conformance analysis in PPM.

PPM provides the options of refining the analysis down to the individual process instances in order to uncover the weak points in your processes.

3.2.2 Analyze the conformance issue

You can analyze the conformance issue types in the **Interaction analysis** realm of PPM.

Procedure

1. Open the client for whose processes you want to analyze the conformance in PPM, for example, the **umg_en** demo client.
2. Open the **Interaction analysis** realm.

   The realm opens on a separate tab.
3. Click ➕ **New**.
4. Double-click ▦ **Table**.
5. Double-click ▦ **List table**. The corresponding wizard opens that helps you define your analysis.
6. Select the **Financial services** process type in the process tree.

   Only the process instances of this process type are analyzed.
7. Click **Next**.
8. Select the **Number of conformance issues** measure.
9. Click **Next**.
10. Select the **Preceding function** and **Non-conforming function** dimensions and the **Conformance issue type** relation.
11. Click **Finish**.

    The wizard closes and a table with the conformance issues is displayed.
12. Create a favorite for your current analysis.

    You can use the favorite to create a dashboard in ARIS Aware.

The table lists the **Conformance issue type**, the **Non-conforming function**, the **Preceding function**, and the **Number of conformance issues** for each issue type**.**

3.3 Create dashboards in ARIS Aware

Alternatively or in addition to PPM, you can use ARIS Aware in ARIS Connect to visualize your analysis (page 17). ARIS Aware provides the dedicated PPM data source operator with which you can access the process data of PPM and use it to analyze the conformance of your processes. The new conformance measure and dimension can be queried as usual from PPM and included in your dashboards.

Example

This example shows you how to display the conformance issues analyzed in PPM using a **Grid** widget in a dashboard.

For general information on how to create a dashboard, see the ARIS Connect online help.

Prerequisites

- You have configured the process conformance check for PPM. (page 20)
- You have created a PPM connection for the relevant PPM client (for example, umg_en) in ARIS Connect.

Procedure

1. Open the dashboard editor in ARIS Connect.
2. Insert a ⊞ **Grid** widget into the dashboard.
3. Click 🔧 **Assign data** in the properties dialog of the widget to edit the data source assignment.

   The **Assign data (1/2)** dialog opens.
4. Insert the **PPM** data source.
5. Select the PPM alias created for your PPM client in the **PPM connection** drop-down menu.
6. Enter the favorite name of your conformance issue analysis (page 17) in the **Favorite** input box, for example, \my Conformance issue analysis.

   Alternatively, click **Extract from URL**, enter the favorite URL, and click **Extract**. The required data is automatically extracted from the inserted favorite URL.

   Tip

   You can copy the required favorite URL to the clipboard in PPM and paste it in the **Favorite URL** input box. In PPM, right-click the relevant favorite and select **Use in dashboard** to copy the URL to the clipboard.
7. Click **Next**.

   The **Assign data (2/2)** dialog opens.
8. Insert the data columns you want to display in the grid into the **Grid columns** box using drag and drop, for example, the **Conformance issue type**, **Non-conforming function**, **Preceding function**, and **Number of conformance issues** data columns.
9. Click **OK**.

The **Grid** widget shows the table with the selected criteria and the corresponding values.

You can add more widgets to the dashboards in the same way, for example, a **Process Variants** or a **Function flow diagram** widget.

3.3.1   Example

The following figure show a dashboard created in ARIS Aware. The dashboard contains several widgets that display the process conformance data retrieved from PPM.
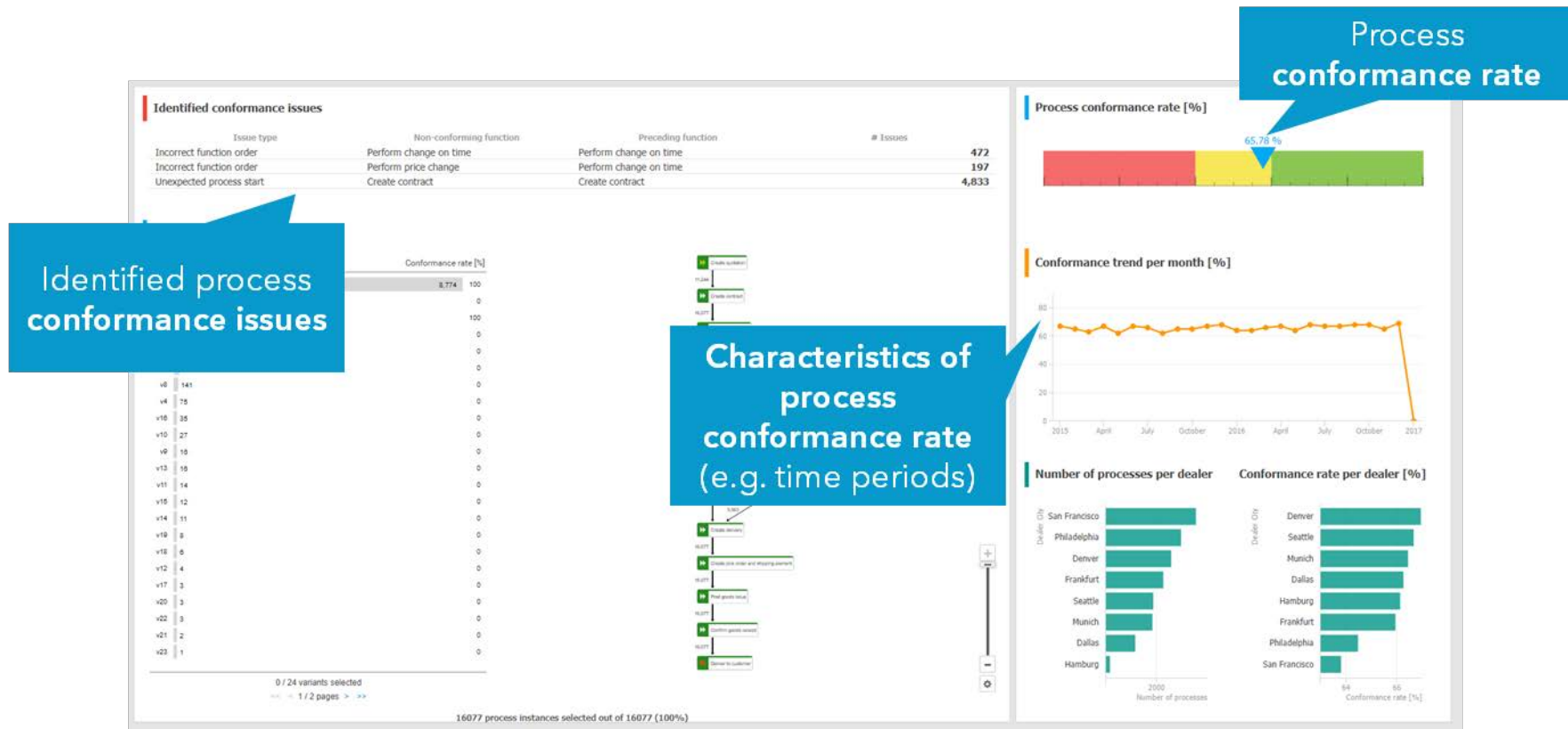
4 Appendix

4.1 Configure the process conformance check

You can customize the PPM client configuration for your process conformance check using the CTK. You need to configure the client customizing only once. The customized client configuration is then available for all subsequent conformance analyses.

Prerequisite

You have the required administration privileges in PPM.

Procedure

1. In CTK, extend the PPM customizing to enable the required conformance check configuration in PPM. You must import the transport container to extend the PPM client configuration. The transport container provides all relevant configuration elements for your conformance check, such as attributes, measures and dimensions.

    For details, see chapter **Extend the PPM client configuration** (page 20).

2. After the process data are transferred from ARIS Architect to PPM, you must calculate the measures and dimensions and import the process data into PPM. Import all new process instances that are to be included in the conformance check into PPM.

    For details, see chapter **Calculate and import the process data into PPM** (page 22).

The process data are available in PPM for to perform a process conformance check (page 6).

4.1.1 Extend the PPM client configuration

A transport container provided by PPM contains all relevant PPM configuration settings and elements, such as dimensions, measures, and relations required for the process conformance check.

Before you can customize your PPM client, you must import the provided transport container into the PPM client.

4.1.1.1 Import the transport container

You can use the PPM Customizing Toolkit to import the transport container into the PPM client. The required elements are added to the client configuration. This includes special conformance dimensions, measures, and attributes.

The **conformanceCheck.zip** transport file is located in the PPM installation directory.

<PPM

installation>\ppm\server\bin\work\data_ppm\samples\conformance\transport_container\

If there is a naming conflict between keywords in the transport package and existing customizing, you must manually adjust the names using CTK. Note that keywords from the transport container

should not be changed unless there is a conflict. The natural language names presented in graphical user interfaces can be changed.

Prerequisites

▪ English must be available as user interface language in the PPM client.

The names and descriptions are only available in English. If English is not available as an interface language of the target PPM client, it must be added before the transport file can be imported. You can configure the interface languages in CTK, **Attributes** module > **Interface Languages**.

▪ Interaction analysis must be enabled in the PPM client.

If the client in CTK is not yet configured to use interaction analysis, you must enable it before importing the transport container. You can enable the interaction analysis in CTK, **Client** module > **Properties**. Click **Edit client properties** and enable the **Use Interaction analysis** option.

Procedure

1. Open CTK.

2. Open the relevant PPM client configuration on the **Client overview** page.

3. Click ✏ **Edit** in the main menu.

4. Click 🔀 **Import data from a transport container** in the main menu. The corresponding wizard opens.

5. Make your settings.

Select the elements to be imported and specify whether the existing configuration is to be overwritten or supplemented. You also have the option to check the changed configuration for any errors and inconsistencies. For details, see the CTK embedded help.

The elements of the selected transport container are imported into the PPM client configuration.

The new or changed configuration is saved only after the import has been completed.

Tip

Details on the import process are available in the integrated help of the corresponding wizard.

For more information on how to use CTK, see the documentation **PPM Customizing Toolkit**.

4.1.1.2   Adapt the PPM client customizing

The transport container provides the **Conformance rate** (page 3) measure calculated on the process instances and the **Conformance issue** (page 3) relation that contains detailed information about why process instances were considered conformant or non-conformant.

The **Conformance issue** relation consists of a source object dimension **Preceding function**, a target object dimension **Non-conforming function**, a single-level text dimension **Conformance issue type** containing a keyword for the issue type, and a measure **Number of conformance issues** that counts issues within a process instance.

In PPM, measures and dimensions are assigned to process types or process type groups. The transport container does not contain any assignments of measures or dimensions to the process tree. You can manually assign them in the **Processes/Process tree** module in CTK. You must assign them as follows to ensure that process analysis and relation analysis perform correctly.

- **Conformance rate** as a **process analysis measure**

- **Number of conformance issues** as a **relation analysis measure**

- **Conformance issue type** as a **relation analysis dimension**

The dimensions **Non-conforming function** and **Preceding function** are automatically assigned as relation analysis dimensions. You must not assign them as process analysis dimensions.

You can assign these elements specifically to those process tree nodes for which you intend to import reference models. This requires customizing updates whenever a model is to be used for a new process type.

Alternatively, you can assign them to a higher level in the process tree or even to the root. This makes the measures and dimensions visible even when no model is available (but generates additional warnings during import).

If you only need the conformance rate without detailed information about the reasons for non-conformance, you can also use the process level elements from the transport container and leave out the relation elements.

Process instances for which the conformance rate cannot be calculated do not provide any value for the **Conformance rate** measure. The measure is based on an attribute calculated by a new attribute calculator class. For details on the calculation class and the new relation calculator, see the documentation **PPM Customizing**.

For more information on how to customize your PPM client, see the documentation **PPM Customizing**.

4.1.1.3   Activate the conformance measures and dimensions

You must activate the imported and customized measures and dimensions using CTK.

Procedure

1. Open the relevant PPM client configuration on the **Client overview** page.
2. Open the **Programs** component in the **Client** Module.
3. Run the **Activate configuration of 'Process' module group** program.

The conformance measures and dimensions are activated for your PPM client.

4.1.2   Calculate conformance level and root causes

The actual conformance check is done when the process data is imported into PPM. After the ARIS process data was transferred from ARIS to PPM, every new or modified process instance of an

eligible process type (that is, a process type for which an appropriate conformance measure is defined) is automatically calculated for conformance during PPM import.

Usually the PPM import process is performed automatically and the process data is available in PPM with the next scheduled data import. Otherwise, you must import the process data manually into PPM.

Procedure

1. Open CTK.
2. Open the relevant PPM client configuration on the **Client overview** page.
3. Open the **Programs** component in the **Client** Module.
4. Run the **Merge processes and calculate measures** program.

The values of the new conformance measures and dimensions are calculated and are now available in PPM for your process analyses (page 14).

The **Merge processes and calculate measures** program runs the **runppmimport** command line tool. It recalculates the existing instances with reference to the new imported ARIS model. You can run the command line tool manually, with the option **-keyindicator new** (or **-typifier new**, which implies **-keyindicator new**).

For details on how to run PPM import, see the **runppmimport** command line tool in the documentation **PPM Operations Guide**.

4.1.3 Conformance check in process hierarchies

Sub-process assignments to functions in the reference model are not imported into PPM. The conformance calculation calculates the conformance rate for a single process instance without evaluating referenced processes.

4.1.4 Conformance check in scaled systems

In a scaled system, you cannot import reference models onto the master server. The reference models must be imported onto every sub-server individually. Therefore, the HTTP/S port of the sub-servers must be reachable from the ARIS client, on which the import of a reference model is executed.

The master server does not check if the conformance configurations on the sub-servers are the same.

4.2 ARIS report descriptions

4.2.1   Report: Select PPM process type and create function mapping

USE

The report is run on a selected EPC or BPMN (page 13) model in ARIS. The report selects a PPM process type or process type group to import the connected functions. Based on the data being imported, the report creates an ARIS matrix model and an EPC or BPMN (page 13) model based on the selected model type. The imported PPM functions are mapped to the functions used in the generated process in ARIS.

In PPM, process instances (processes) are classified according to process types. Process types are summarized to process type groups. The process types and process type groups are organized hierarchically   in a process tree. Process types and process type groups provide a number of measures, dimensions, relations, and functions, which are registered at the respective process type or process type group.

CONTEXT

EPC or BPMN

PARAMETERS

The following PPM parameters are required.

- **PPM credentials**: PPM user name and the corresponding password to log in to the PPM client.

- **PPM server URL**: URL of the PPM server that provides the PPM client you want to connect to.

- **PPM client**: Name of the PPM client you want to connect to. A PPM client provides all configuration files and applications required to extract data from a source system and configure it for further processing. The client provides the data extracted and transformed from various data sources.

The following ARIS parameters are required.

- **Name of the matrix model to be created**: Name of the matrix model created by the report, based on the data imported from PPM. The matrix model generated in ARIS maps the functions imported from PPM.

- **Name of the process to be created**: Name of the EPC or BPMN (page 13) created by the report, based on the data imported from PPM. The process generated in ARIS represents the function flow model imported from PPM.

4.2.2   Report: Transfer process model and mapping information to PPM

USE

The report transfers both the process model (to-be) belonging to a PPM process type (as-is) and a corresponding mapping of ARIS objects to PPM objects to PPM. This transfer is the basis for checking whether all process instances were run in conformance with the originally planned process.

The report is run on the EPC or BPMN (page 13) model created by the **Select PPM process type and create function mapping** (page 24) report.

CONTEXT

EPC or BPMN

PARAMETERS

The following PPM parameters are required.

- **PPM credentials**: PPM user name and the corresponding password to log in to the PPM client.

- **PPM server URL**: URL of the PPM server that provides the PPM client you want to connect to.

- **PPM client**: Name of the PPM client you want to connect to. A PPM client provides all configuration files and applications required to extract data from a source system and configure it for further processing. The client provides the data extracted and transformed from various data sources.

4.2.3   Specify report parameters for function import and function mapping

You can set the parameters used in the **Select PPM process type and create function mapping** report. The parameters are preset with default values used in PPM. If you want to change the preset parameters, you can create further parameter value sets.

The report is located in the **PPM integration** folder in **Administration** -> **Evaluation** -> **Reports**.

The report requires the following PPM parameters to be able to import the data from PPM.

- **PPM credentials**: PPM user name to log in to the PPM client. The corresponding password is asked for when you run the report.

- **PPM server URL**: URL of the PPM server that provides the PPM client you want to connect to.

- **PPM client**: Name of the PPM client you want to connect to. A PPM client provides all configuration files and applications required to extract data from a source system and configure it for further processing. The client provides the data extracted and transformed from various data sources.

The report requires the following ARIS parameters.

- **Name of the matrix model to be created**: Name of the matrix model created by the report, based on the data imported from PPM and the selected model. The matrix model generated in ARIS maps the functions imported from PPM.

- **Name of the process to be created**: Name of the process created by the report, based on the selected EPC or BPMN model.

- **View level for process interfaces**: Specify the level up to which models that are linked to the selected models via process interfaces. View level 1 means that occurrences of all object definitions that are contained in the directly linked models are also created in the new model. If you increase the view level to 2, occurrences of all object definitions in the models linked to the directly linked models are also created. The maximum view level is 5. If you do not want to use models that are linked via process interfaces, enter 0.

If you do not want to use the default parameters, please ask your PPM system administrator for the relevant parameters.

Prerequisite

You are script administrator for this tenant.

Procedure

1. Click **ARIS >** 🔧 **Administration**.
2. Click ⚙ **Navigation** in the bar panel if the **Navigation** bar is not activated yet.
3. In the navigation tree, click the folder 📊 **Evaluations > Reports**.
4. Click the **PPM integration** category (subfolder).
5. Select the **Select PPM process type and create function mapping** report.
6. In the **Start** tab bar, click 🛠 **Edit report parameters**. The report parameters are displayed.
7. Specify new value sets and the parameters required.
8. Click **OK**.

The report evaluates defined data as required.

4.2.4   Specify report parameters for the transfer of process model and function mapping

You can set the parameters used in the **Transfer process model and mapping information to PPM** report. The parameters are preset with default values used in PPM. If you want to change the preset parameters, you can create further parameter value sets.

The report transfers both the process model (to-be) belonging to a PPM process type (as-is) and a corresponding mapping of ARIS objects to PPM objects to PPM.

The report is located in the **PPM integration** folder in **Administration** -> **Evaluation** -> **Reports**.

The report requires the following PPM parameters to be able to import the data from PPM.

- **PPM credentials**: PPM user name to log in to the PPM client. The corresponding password is asked for when you run the report.

- **PPM server URL**: URL of the PPM server that provides the PPM client you want to connect to.

- **PPM client**: Name of the PPM client you want to connect to. A PPM client provides all configuration files and applications required to extract data from a source system and configure it for further processing. The client provides the data extracted and transformed from various data sources.

If you do not want to use the default parameters, please ask your PPM system administrator for the relevant parameters.

Prerequisite

You are script administrator for this tenant.

Procedure

1. Click **ARIS >** 🔧 **Administration**.

2. Click ⚙ **Navigation** in the bar panel if the **Navigation** bar is not activated yet.

3. In the navigation tree, click the folder 📈 **Evaluations > Reports**.

4. Click the **PPM integration** category (subfolder).

5. Select the **Transfer process model and mapping information to PPM** report.

6. In the **Start** tab bar, click 🎯 **Edit report parameters**. The report parameters are displayed.

7. Specify new value sets and the parameters required.

8. Click **OK**.

The report evaluates defined data as required.

5   Legal information

5.1   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 Software AG's consulting services, 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 only describe 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.

If a description refers to a specific ARIS product, the product is named. If this is not the case, names for ARIS products are used as follows:

Name	Includes
ARIS products	Refers to all products to which the license regulations of Software AG standard software apply.
ARIS Clients	Refers to all programs that access shared databases via ARIS Server.
ARIS Download clients	Refers to ARIS clients that can be accessed using a browser.

5.2 Data protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR).

Where applicable, appropriate steps are documented in the respective administration documentation.

5.3 Disclaimer

ARIS products are intended and developed for use by persons. Automated processes, such as the generation of content and the import of objects/artifacts via interfaces, can lead to an outsized amount of data, and their execution may exceed processing capacities and physical limits. For example, processing capacities are exceeded if models and diagrams transcend the size of the modeling area or an extremely high number of processing operations is started simultaneously. Physical limits may be exceeded if the memory available is not sufficient for the execution of operations or the storage of data.

Proper operation of ARIS products requires the availability of a reliable and fast network connection. Networks with insufficient response time will reduce system performance and may cause timeouts.

If ARIS products are used in a virtual environment, sufficient resources must be available there in order to avoid the risk of overbooking.

The system was tested using scenarios that included 100,000 groups (folders), 100,000 users, and 1,000,000 modeling artifacts. It supports a modeling area of 25 square meters.

If projects or repositories are larger than the maximum size allowed, a powerful functionality is available to break them down into smaller, more manageable parts.

Some restrictions may apply when working with process administration, ARIS Administration, ARIS document storage, and ARIS Process Board, and when generating executable processes. Process Governance has been tested and approved for 1000 parallel process instances. However, the number may vary depending on process complexity, for example, if custom reports are integrated.

ARIS document storage was tested with 40.000 document items. This includes documents, document versions or folders. We recommend monitoring the number and overall size of stored document items and archiving some document items if needed.