ARIS PROCESS MINING 10

# COMPLIANCE CHECK WITH ARIS PROCESS MINING

APRIL 2025

This document applies to ARIS Process Mining Version 10.0 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.

# Contents

# 1 Analyze process compliance

A compliance analysis with ARIS Process Mining helps you find issues or inconsistencies that reduce process performance. The compliance analysis includes the process conformance analysis and the compliance rule check.

## PROCESS CONFORMANCE CHECK

Without considering business attributes, such as risk measures, a process conformance check compares the structure of cases to a reference process. ARIS is the main repository for modeling target (to-be) processes. These reference processes are modeled using **BPMN** or **EPC** models. ARIS Process Mining is used to discover and analyze executed processes that are recreated based on event logs imported from application systems. A process conformance check compares the reference process with the executed process instances and calculates relevant measures and dimensions.

**Note**

To achieve acceptable performance, the algorithm uses heuristics to find a path through the reference model when multiple possible paths exist. The algorithm guarantees that cases marked as conformant do conform with the reference model. However, the process conformance check may show cases as non-conformant, although there is a possible path in the reference model (so-called false negatives). False negatives may occur if the reference model contains complex control structures with a cascade of gateways. Often such reference models can be simplified without loss of semantics, thus avoiding false negatives in the conformance analysis. Avoiding several tasks with identical names in the reference model will also tend to improve the quality of process conformance analysis.

When the reference model is an EPC, some cases that might informally be considered to be not conformant with the model may be shown as conformant. This can happen when the EPC contains inclusive OR operators. The informal semantics of EPCs requires that at least one outgoing branch of such an operator be chosen. However, the conformance check always uses the operational BPMN semantics of inclusive gateways, in which all outgoing branches are considered optional.

## COMPLIANCE RULE CHECK

A compliance rule check analyzes whether an executed and measured process instance (case) of a production system is compliant with a defined condition of a compliance rule. The compliance rule check allows you to formulate declarative rules that evaluate business attributes, but make very limited use of process structure information.

## COMPLIANCE APP

You can use the **Compliance** app (page 3) to work with process conformance analyses and compliance rule checks. The **Compliance** app is a standard app in ARIS Process Mining and ready to use.

## 1.1 Perform a process conformance check

You can analyze the **Process conformance** (page 4) using the **Compliance** app (page 3) in ARIS Process Mining. The **Conformance rate (page 4), Fitness (page 6)** measures, and **Conformance issue type** (page 5) dimensions are provided in ARIS Process Mining just 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 (cases).

**Procedure**

1. Before you can perform a process conformance analysis, you must transfer the reference process from ARIS to ARIS Process Mining. The transferred process is also available for later analyses. You do not have to perform this procedure for every conformance check. You must perform it only if you change the reference process that you want to analyze, for example, after a process redesign.
2. Depending on the ARIS Process Mining version you use, you have different options for transferring the reference process from ARIS to ARIS Process Mining.
   a. Start the process transfer from ARIS Process Mining. (page 16) This option is only available if you use ARIS Process Mining and ARIS in a combined deployment.
   b. Start the process transfer from ARIS. (page 20) This option is available if you use ARIS Process Mining and ARIS in a combined deployment and if you use ARIS Process Mining as a standalone version.

      If you use ARIS Process Mining in a standalone version, you must first integrate ARIS Process Mining and ARIS (page 54).
3. Create an activity mapping (page 22). You must map the tasks of the reference process to the activities of the executed process.
4. Select the reference process (page 39) as the basis for your process conformance check.
5. Use the **Conformance** app (page 3) for your process conformance check.

You have performed a process conformance check.

## 1.2 Perform a compliance rule check

A compliance rule check analyzes whether an executed and measured process instance (case) of a production system is compliant with a defined condition of a compliance rule.

Compliance rules are applied to cases and thus compliance is a property of cases. A case is checked for compliance with one or more defined rules (rule set). A rule contains a condition that must be met for a case to be compliant. A case is compliant with a set of rules if the case meets all defined rules. If the case violates at least one rule, the case is not compliant. The case then has a compliance rule issue with respect to that rule.

**Compliance rule examples**

- An invoice must be approved before it is paid.
- The "Create invoice" activity must always take at most one hour.
- If a risk category is "critical", the case must include a "Review Purchase Requisition" step.
- The delivery date of a customer order must be within one day of the target delivery date.

**Procedure**

1. Create a compliance rule (page 43).
2. Create a rule condition (page 45).
3. Activate the compliance rule (page 49).
4. Use the **Compliance** app (page 3) for your compliance rule check.

You have performed a compliance rule check.

## 1.3 Use the Compliance app

You can use the **Compliance** app to work with process conformance analyses and compliance rule checks (page 3). The **Compliance** app is a standard app and ready to use. You can add the app to your analysis if you have created your activity mapping and loaded it to the data set (page 22) or you have created a compliance rule (page 43).

**Prerequisites**

You have created an activity mapping (page 22) or a compliance rule (page 43).

**Procedure**

1. Create an analysis for a project that contains the data set with the created activity mapping (page 22) or compliance rule set (page 43).
2. Add the **Compliance** app to the analysis.

The **Compliance** app is added to your analysis and ready to use.

- The Overview (page 7) tab shows the most important compliance criteria of your analysis.

- On the Conformance (page 9) tab, you can dive deeper into your conformance analyses.
- On the Rule checks (page 11) tab, you can check your processes for rule compliance.

You can also set the time dimension and scaling (page 12) and select the time frame (page 13)for all your compliance analyses.

### 1.3.1 Basic terms

This section describes the most important terms used when a process compliance check is performed. Knowing the basic terms helps you to understand how ARIS Process Mining works.

#### 1.3.1.1 Process conformance

A case is conformant if it matches against the reference process step by step. A case is non-conformant if any occurrence of an activity is inconsistent with the reference process.

A calculation provides a conformance measure for each case, with the possible values **conformant** and **non-conformant**. The **conformance rate** shows the percentage of conformant cases in a given selection. For example, a conformant rate of 0.87 would mean that 87% of the available cases conform to the reference process.

The ARIS reference model establishes the sequence and logic in which tasks should be executed. The model can contain a great number of task sequences. For example, the model may contain splitting parallel gateways. The branches emanating from such a gateway may be executed in any order, so that many task sequences are compatible with such a structure. Joining gateways, on the other hand, are synchronization points: Such a gateway indicates that all tasks from the gateway's incoming branches must be completed before any task from the gateway's outgoing branches can be executed.

The conformance check converts an event log into a linear sequence of activities. It then determines whether the activity sequence corresponds to an order of tasks that is in accordance with the reference model. In addition, for the activity sequence to be considered conformant with the model, the last step must terminate in one of the end events that have been modeled for the process. This implies that unfinished processes (that is, processes that require further imports from the source system to be completed) are most likely classified as non-compliant.

The conformance check distinguishes different reasons for the non-conformance of cases. These reasons are called conformance issues (page 5).

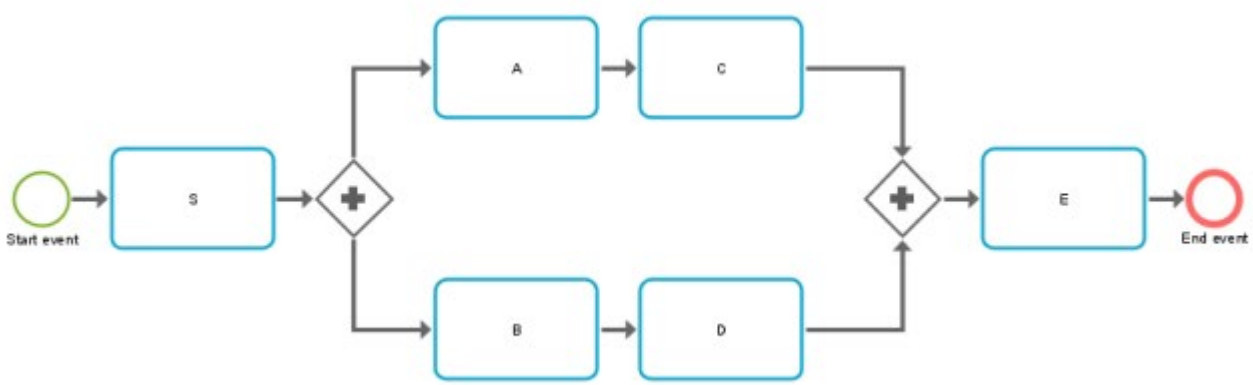
### 1.3.1.2 Conformance issues

The conformance check distinguishes different reasons for the non-conformance of cases. These reasons are called conformance issues.

There are several types of conformance issues.

**Example**

The following figure shows a schematic BPMN process**.** The process is the reference model for the examples of the non-conformance types described below.




- A particular pair of activities occurs in the wrong order.

  **Example**

  Non-conformant activity order: S,C,A,B,D,E
- The activity sequence starts with a wrong activity.

  **Example**

  Non-conformant activity order: E,A,C,B,D,E
- All steps of the activity sequence are completed, but no end event is reached. This indicates an incomplete process.

  **Example**

  Non-conformant activity order: S,A,C,B,D
- An activity in the activity sequence does not match any model task.

  **Example**

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

Non-conformant activity 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 that there may be more reasons for non-conformance than ARIS Process Mining reports.

### 1.3.1.3 Fitness

Fitness expresses how well a case complies with the reference process. The fitness value quantifies the extent to which the activities of a case match the reference process. A fitness value of 100 is assigned to a conformant case.

### 1.3.1.4 Standard compliance fields

The following standard compliance fields are available in the analysis model.

#### RULE CHECK

The **Rule check** field aggregates the results of checking a case against the active compliance rules. The value of this field is either **Compliant** or **Non-compliant**. A case is compliant if all rules are evaluated as true, and non-compliant if at least one rule is evaluated as false with respect to that case. The **Rule check** field is available in the analysis model only if at least one compliance rule is created. The **Rule check** field is available when a compliance rule is defined.

#### CASE COMPLIANCE

The **Case compliance** field aggregates the overall result of the rule checking and conformance check. The value of this field is either **Compliant** or **Non-compliant**. The **Case compliance** field is available in the analysis model only if at least one compliance rule is active or a conformance mapping is defined. The unused component of a compliance analysis does not contribute to the aggregated value of the **Case compliance** field. For example, if the conformance check is not available, the value of **Case compliance** is **compliant** only if the value of the **Rule check** is compliant. The **Case compliance** field is available when a compliance rule is defined.

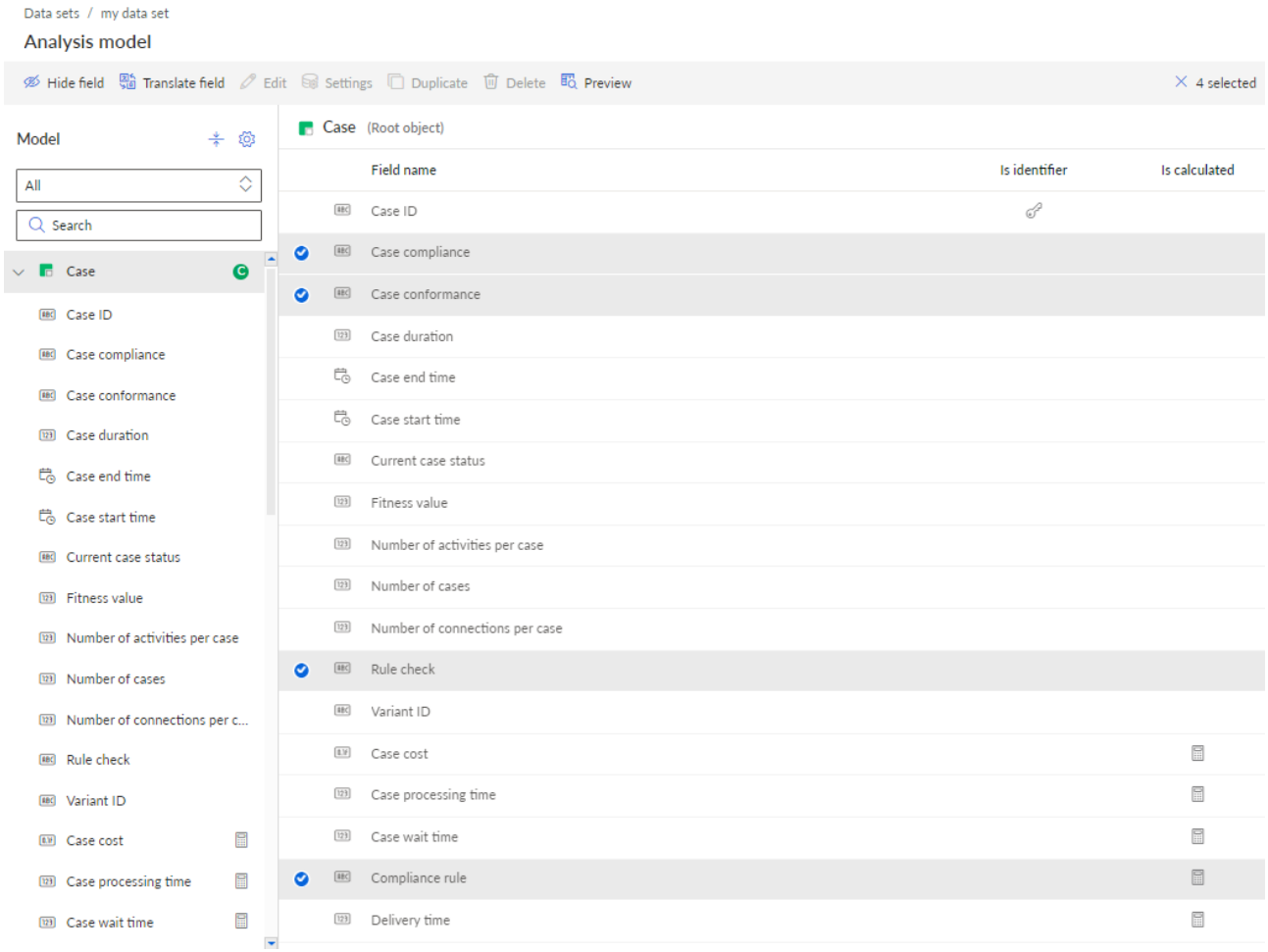
#### CASE CONFORMANCE

The **Case conformance** field aggregates the result of the conformance check. The value of this field is either **Conformant** or **Non-conformant**. A case is conformant if it matches against the reference process step by step. A case is non-conformant if any occurrence of an

activity is inconsistent with the reference process. The **Case conformance** field is available in the analysis model only if a conformance mapping is defined. The **Case conformance** field is available when an activity mapping is defined.

### Example

Analysis model including the standard compliance fields **Case compliance**, **Case conformance**, and **Rule check**.




## 1.3.2 Overview

The **Overview** tab provides a unified view of conformance and rule check results. This view lets you quickly determine the compliance of your cases. The tab shows the most important compliance criteria of your analysis.

- Number of conformant and non-conformant cases
- Number of compliant and non-compliant cases
- Conformance rate (page 4)

- Compliance rate

In the **Detailed compliance** view in the lower section of the **Overview** tab, you can display both the conformance and compliance check results together, or only the conformance or compliance check results at a time.

### SET SELECTIONS

You can set filters by selecting data points in the individual charts. All other charts on the tab are filtered according to your selection. As with all other analysis apps, you can use filters in the **Conformance** app. For example, you can save and combine filters. For details, see the chapter Filter processes.

### CONFORMANT VERSUS NON-CONFORMANT AND COMPLIANT VERSUS NON-COMPLIANT CASES

The pie charts show the total number of conformant/compliant (marked blue by default) and non-conformant/non-compliant (marked red by default) cases. The corresponding column chart shows the distribution of the cases within a period.

If your ARIS Process Mining version supports the multiple selection of reference processes, (page 40) the charts with the result of the conformance check additionally display non-considered cases. Non-considered cases are cases that are not included in the conformance check due to the filters defined for the reference processes (page 41). Non-considered cases are marked gray in the charts.

You can select the individual parts of the pie chart to filter the corresponding cases.

You can also filter the period in the column chart. Select a column to filter the cases at a specific point in time. When you select a column, a slider is displayed. Move the slider with the mouse pointer to set a period on the timeline.

### CONFORMANCE RATE AND FITNESS VALUE

The **Conformance rate** and the **Fitness** chart (not displayed in the example below) display their values corresponding to your selection, for example, the conformant cases at a selected time. If you have not filtered any cases, the values apply to all cases. The corresponding line charts show the distribution of the conformance rate or fitness value within a period.

As with the column chart, you can select a point in time, or you can set a period using the slider. The slider is displayed as soon as you select a point in the line chart.

### Example

The example shows the **Detailed compliance** view for the **Conformance**. The conformance check also includes the non-considered cases (marked gray in the charts).


## 1.3.3 Process conformance

The **Conformance** tab allows you to dive deeper into your process conformance analyses by examining the individual conformance issues. You can select individual conformance issues that have been identified by ARIS Process Mining and display the corresponding conformance measures. The app provides all relevant criteria for your conformance analysis, such as Conformance rate (page 4), Fitness (page 6), and Conformance issues (page 5).

The tab shows the relevant conformance measures in the first line of the dashboard.

- Total number of non-conformant cases
- Total number of individual issues
- Throughput time of conformant and non-conformant cases
- Activities per conformant and non-conformant cases

The **Conformance issue types** chart graphically shows the proportion of different issue types for all cases, such as **Invalid start activity**, **Invalid end activity**, and **Unexpected consecutive activities**.

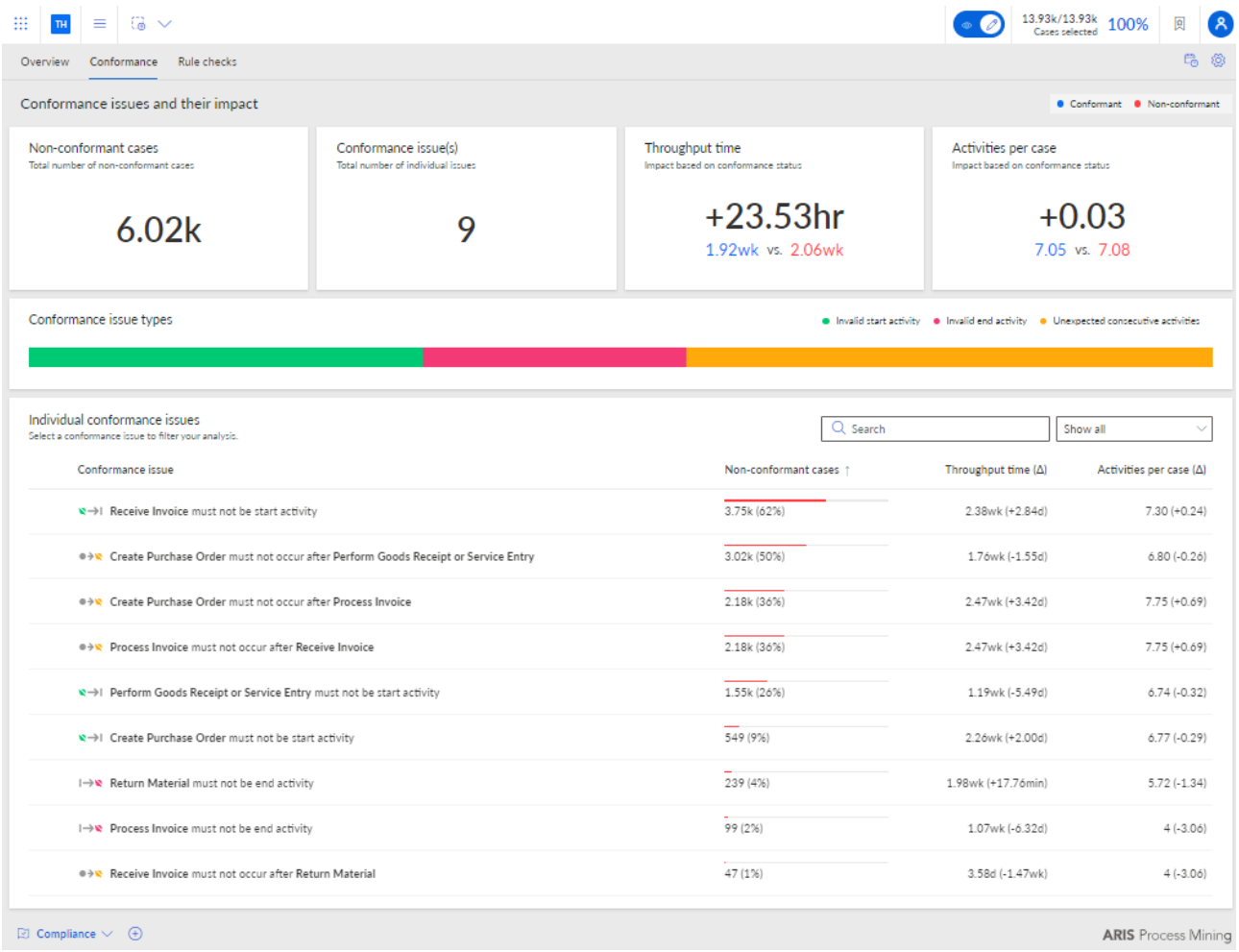
The **Individual conformance issues table** lists the individual conformance issues with the corresponding measure values. You can select one or more conformance issues to filter your analysis accordingly.

The **Conformance rate** and the **Fitness** chart display their values corresponding to your selection, for example, the conformant cases at a selected time. If you have not filtered any cases, the values apply to all cases. The corresponding line charts show the distribution of the conformance rate or fitness value within a period.

As with the column chart, you can select a point in time, or you can set a period using the slider. The slider is displayed as soon as you select a point in the line chart.

The **Variants and their Fitness** diagram shows the different variants with their specific fitness. When you move the mouse pointer over a variant in the column chart, a tooltip is displayed. It shows, for example, 25 cases and a fitness rate of 87. This means that there are 25 cases of this variant with a fitness rate of 87.

### Example



## 1.3.4 Rule compliance

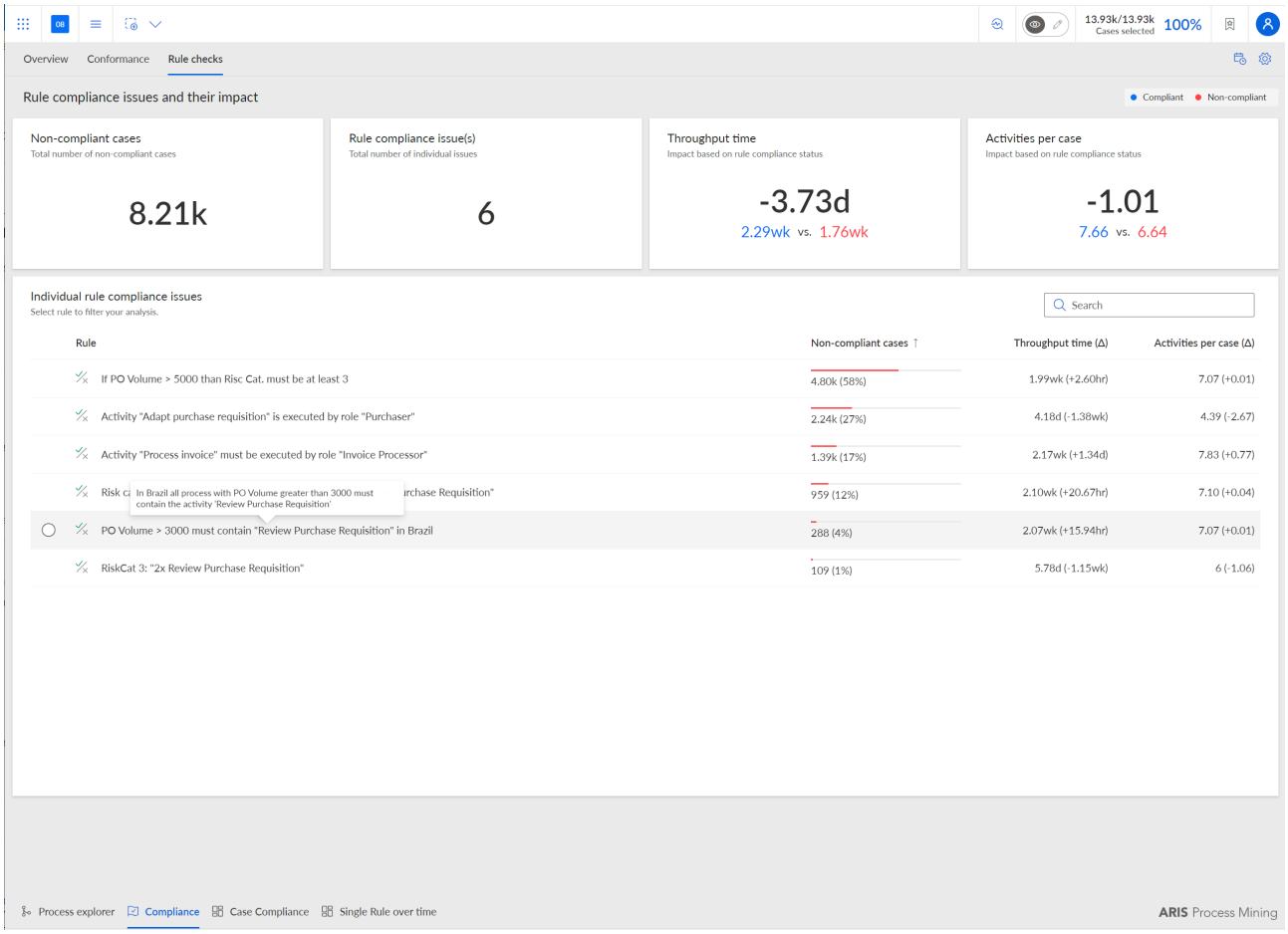
The **Rule checks** tab allows you to dive deeper into your analyses by examining the individual rule compliance issues. You can select individual rules that have been identified by ARIS Process Mining as non-compliant and display the corresponding compliance measures.

The tab shows the relevant compliance measures in the first line of the dashboard.

- Total number of non-rule-compliant cases
- Total number of rule compliance issues
- Throughput time of rule-compliant and non-rule-compliant cases
- Activities per rule-compliant and non-rule-conformant cases

The **Individual rule compliance issues** table lists the individual rule compliance issues with the corresponding measure values. You can select one or more rule(s) to filter your analysis accordingly.

### Example



### 1.3.5 Set time dimension and scaling

You can select the time dimension for case-related graphs, time scale for graphs, and enable automatic scaling for key metrics and current cases.

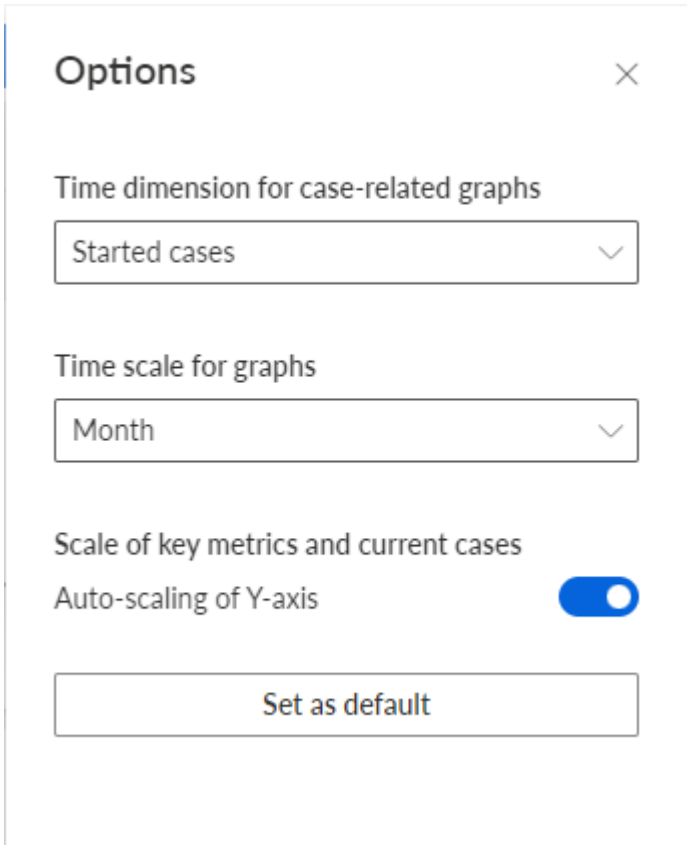
**Procedure**

1. Click **Options** in the app header. The **Options** panel opens.
2. In the **Time dimension for case-related graphs** drop down-menu, you can select whether you want to analyze ongoing or started cases. Started cases are cases whose start time is in the time period under consideration. Ongoing cases are cases that have not yet been completed in the considered period.

   For example, if the considered period is January, the started cases are all cases that were started in January. Ongoing cases are all cases that are not yet completed in January.
3. In the **Time scale for graphs** drop-down menu, You can set the scaling of the period displayed in the charts.
4. Enable the **Auto-scale Y-axis** option to enable automatic scaling of the values displayed on the Y-axis.
5. To set your settings as default, click **Set as default**. The option is available only if one of the options here has been changed.

Your settings are applied.

**Example**




## 1.3.6 Select time frame

You can change the time range to filter the data to be analyzed.

**Procedure**

1. Click **Time frame** in the app header. The **Select time frame** panel opens.
2. Select a predefined time range, such as **This week** or **Previous month**.

Your settings are applied.

**Example**


## 1.4 Use compliance-related analysis criteria

You can use various compliance-related analysis criteria to enhance your process compliance analyses. You can use these analysis fields as dimensions or measures, for example, to filter your compliance analyses.

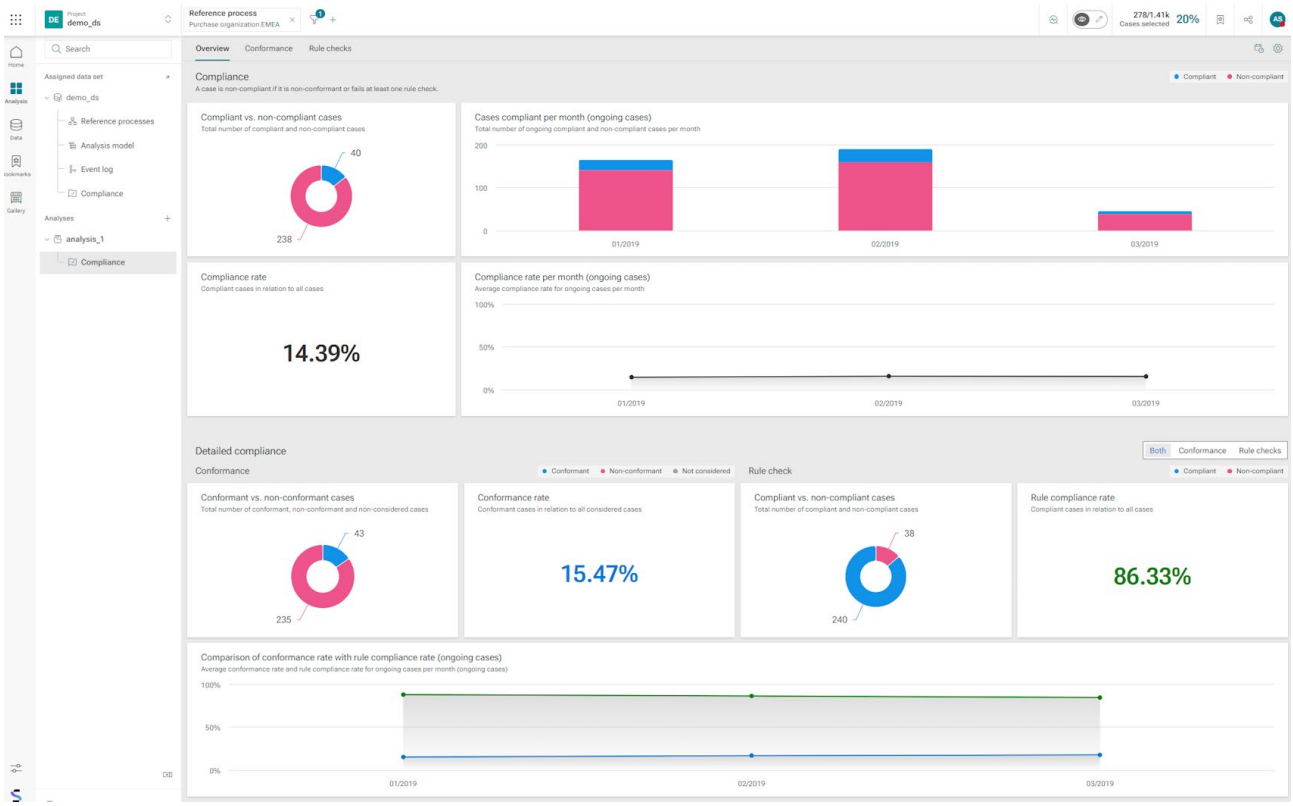
If your ARIS Process Mining edition supports the multiple selection of reference processes (page 40), the Reference process field is additionally available.

### Compliance-related analysis criteria

- Case compliance: The values are **compliant** and **non-compliant**.
- Case conformance: The values are **conformant** and **non-conformant**.
- Fitness value: Calculated values between 0 and 100.
- Reference process: Values are the names of the reference processes that are used for the conformance check.
- Rule check: Values are **failed** and **passed**.

### Example

Supposed you have a reference process that is valid in your purchase organization EMEA only. In order to restrict the compliance analysis to those cases you can set a filter on the Reference process dimension.



# 2 Reference processes

Reference processes are target (to-be) processes that are modeled in ARIS using models of BPMN or EPC type. In ARIS Process Mining you can compare the reference processes with actually executed process instances and calculate relevant measures and dimensions. Reference processes are the basis for performing process conformance checks and using the **Process model overlay** app.

Before you can use reference processes in ARIS Process Mining, you must perform the following steps:

- Transfer at least one reference process from ARIS to ARIS Process Mining. To do so, you have two options.
  a. Start the process transfer from ARIS Process Mining. (page 16)

     If you want to use an **EPC** model as reference process for the conformance check or **Process model overlay** app, you must start the transfer from ARIS Process Mining.
  b. Start the process transfer from ARIS. (page 20)
- Create an activity mapping for the transferred reference process. (page 22)

**Note**

If you want to perform a process conformance check or use the **Process model overlay** app and you receive a message that there is no reference process or no valid activity mapping, various reasons might be the cause for that.

- No reference process has yet been transferred from ARIS.
- Reference processes are available, but none of them have a valid activity mapping.

## 2.1 Transfer a reference process starting from ARIS Process Mining

The following procedure describes how to transfer a model of the BPMN or EPC type as a reference process from ARIS to ARIS Process Mining, starting from ARIS Process Mining. The reference process is transferred to a data set in ARIS Process Mining.

You can use a process model of the BPMN or EPC type for the **Process model overlay** app. Process conformance check (page 1) also supports models of both types.

For a better understanding of the logic used for the conformance check, the model is transformed into a reduced transfer process. This transfer process contains only object types and connections that are relevant for the conformance check. The transfer process is available for you to review the logic that was sent to ARIS Process Mining. The transferred process is stored separately and has no effect on the original model.

Note that if you want to use the BPMN or EPC reference process to perform a conformance check, the reference process must follow certain modeling conventions (page 28) that are supported by ARIS Process Mining. If the reference process does not conform to these conventions, an error log model is created. The invalid reference process is not transferred to ARIS Process Mining. You can open the error log model to view the error description. You can then adjust the original BPMN or EPC model.

Reference processes that are used only for process overlays do not have any syntactic restrictions.

If the reference process is a BPMN model that contains more than one pool, you can select a pool to be transferred. The transfer model must contain content from only one pool.

If a pool includes call activities or sub-processes (embedded or connected), you can select the relevant elements to be transferred. This means that you select a pool, the elements it contains, such as embedded call activities or sub-processes, and determine the hierarchical model level whose elements are to be transferred.

If the reference process is an EPC that contains more than one start event, you can select a start event. The submodel connected to that start event is transferred to ARIS Process Mining. If an end event of an EPC occurs as a start event in another EPC, you can select the connected start event. If a function that is enclosed between two events has an EPC assigned to it in which these events are a start and end event respectively, you can select the function so that the assigned model is transferred.

**Prerequisites**

- You use ARIS and ARIS Process Mining in a combined deployment.
- You were assigned at least a Designer or Analyst license in ARIS.
- You have the **Write** privilege for the group and subgroup with the selected reference model in the ARIS database.
- You have the Write and Delete privileges for the ARIS Process Mining group and its subgroups in ARIS.
- You have at least the **Edit** privilege for the data set for your conformance analysis in ARIS Process Mining.
- The object definitions of the object occurrence in the reference model must be located in a database folder that you have the **Read** privilege for.
- The object definitions in the reference model must be permitted for the selected method and the selected filter.

**Procedure**

1. Open a data set.

2. Click **Reference processes** in the navigation panel. The **Reference processes** section opens.
3. Click **Add process**. The **Select model** dialog opens.
4. Select a database.
5. Select the model that contains a reference process or a part of it.
   a. On the **Browse** tab, you can browse the folders to find the process.
   b. On the **Find** tab, you can enter the model name to find the process.
   c. Click **Select**. The **Specify details** dialog opens.
6. In the **Specify details** dialog, the target data set and the use of the reference process are specified for the conformance check or process overlay. If you transfer the selected process for the first time, a new process is automatically created in ARIS Process Mining. The corresponding option is preselected by default. If the selected process already exists in ARIS Process Mining, you can overwrite the existing process.
   a. The target data set is the data set to which the process is transferred in ARIS Process Mining.
   b. Specify a process name that is displayed in ARIS Process Mining. By default, the name specified in ARIS is preset. If you overwrite an existing process and you started the transfer from ARIS Process Mining, you cannot change the process name.
   c. You can enter an optional description in the corresponding input field.
   d. To overwrite an existing process in the specified target data set, enable the corresponding option and select a process from the drop-down menu. Click the **Open in new window** button to display the selected process.
   e. Enable **Conformance check** if you want to perform a conformance check in ARIS Process Mining. **Process overlay** is enabled by default and cannot be disabled. You can perform a process overlay with any reference process. If you selected an EPC as reference process, the **Conformance check** option is disabled.
   f. Click **Next**. The Configure process dialog opens.

      If the reference process does not match the modeling convention, an error dialog opens. Click **Show details in model** to view the created error log model. Click **Show details as list** to view the error description. You can edit the process and restart the data transfer again.
7. In the Configure process dialog, you can select the process elements to be transferred. The elements included are displayed in a hierarchical list.
   a. Select the elements of a BPMN model.

Click the icon next to a pool name to display the selectable elements included in the pool. The displayed elements can contain further subordinate elements. The first pool in the model is preselected by default. Depending on the selected pool, you can select, for example, call activities or sub-processes that are included in the pool.

Select the elements in the list. If you select an element embedded in the list, the parent elements are automatically selected, as well. For processes that are only used for process overlays, embedded elements are only displayed if they do not contain a process assignment in ARIS, but are directly embedded.

Click **Transfer**. The **Transfer process** dialog opens and the process data is transferred to ARIS Process Mining.

b. Select the functions of an EPC model. Events are not displayed.

Click the icon next to a function name to display the selectable elements that are subordinate to the function. The functions displayed can contain further subordinate functions. The function of the first level in the model is preselected by default. Selected functions are highlighted in black.

If you select a parent function, the subordinate functions are selected as well. If you select a subordinate function, the parent function is disabled.

Click **Transfer**. The **Transfer process** dialog opens and the process data is transferred to ARIS Process Mining.

8. The **Transfer process** dialog provides various options to proceed.
   a. You can open ARIS Process Mining to create an activity mapping (page 22). Click **Open activity mapping**.
   b. To view the process that has been transferred to ARIS Process Mining, click **Open transferred model**. The process is displayed in the ARIS model editor.
   c. To create an activity mapping at a later time, click **Close**.

The selected process is transferred to ARIS Process Mining and stored as a reference process in the data set.

The transferred process is available in the **Reference processes** section of the data set and labeled as **New**. A reference process that is marked with a white flag ( is available for conformance check. A process that is marked with a black flag () is already selected for conformance check. A process without a flag is not available for conformance check.

All transferred models and error log models are stored in the **ARIS Process Mining** group and its subgroups. This group is a subgroup of the **Main** group in the ARIS database. The models are stored so that they can be inspected if required.

After the process is transferred to ARIS Process Mining, you can create an activity mapping in ARIS Process Mining (page 22).

## 2.2 Transfer a reference process starting from ARIS

The following procedure describes how to transfer a reference process from ARIS to ARIS Process Mining, starting from ARIS.

You can transfer a BPMN model as reference model from ARIS to ARIS Process Mining to perform a process conformance check (page 1) or a process model overlay. The reference process is transferred to a data set in ARIS Process Mining.

For a better auditability and understanding of the logic used for the conformance check, the BPMN model is transformed into a reduced transfer process. This transfer process contains only object types and connections that are relevant for the conformance check. The transfer process is available for you to review the logic that was sent to ARIS Process Mining. The transferred process is stored separately and has no effect on the original BPMN model.

Note that the BPMN process must follow certain modeling conventions (page 28) that are supported by ARIS Process Mining. If the reference process does not conform to these conventions, an error log model is created. The invalid reference process is not transferred to ARIS Process Mining. You can open the error log model to view the error description. You can then adjust the original BPMN process accordingly.

If the BPMN model contains more than one pool, you can select a pool to be transferred. The transfer model may only contain content from one pool.

If a pool includes call activities or sub-processes (embedded or connected), you can also select the relevant elements to be transferred. This means that you select a pool, the elements it contains, such as embedded call activities or sub-processes, and determine the hierarchical model level whose elements are to be transferred.

### Prerequisites

- You were assigned at least a Designer or Analyst license in ARIS.
- You have the **Write** privilege for the group and subgroup with the selected reference model in the ARIS database.
- You have the **Write** and **Delete** privileges for the **ARIS Process Mining** group and its subgroups in ARIS.
- You have at least the **Edit** privilege for the data set for your conformance analysis in ARIS Process Mining.
- The object definitions of the object occurrence in the reference model must be located in a database folder that you have the **Read** privilege for.
- The object definitions in the reference model must be permitted for the selected method and the selected filter.

### Procedure

1. Open a **BPMN** process model in ARIS.

2. Open the **Model** tab.
3. Click the **ARIS Process Mining** icon.
4. Click **Transfer as a reference process to Process Mining** in the drop-down menu. The **Specify details** dialog opens.
5. In the **Specify details** dialog, the target data set and the use of the reference process are specified for the conformance check or process overlay. If you transfer the selected process for the first time, a new process is automatically created in ARIS Process Mining. The corresponding option is preselected by default. If the selected process already exists in ARIS Process Mining, you can overwrite the existing process.
   a. In the Target data set drop-down menu, select the data set to which the model is to be transferred in ARIS Process Mining. Only the data sets for which you have the corresponding Edit privileges are displayed.
   b. Specify a model name that is displayed in ARIS Process Mining. By default, the name specified in ARIS is preset.
   c. You can enter an optional description in the corresponding input field.
   d. To overwrite an existing process in the specified target data set, enable the relevant option and select a process from the drop-down menu. Click the **Open in new window** button to display the selected process.
   e. Enable **Conformance check** if you want to perform a conformance check in ARIS Process Mining. **Process overlay** is enabled by default and cannot be disabled. You can use the **Process overlay** app with any reference process.
   f. Click **Next**. The Configure process dialog opens.

      If the reference process does not match the modeling convention, an error dialog opens. Click **Show details in model** to view the error log model. Click **Show details as list** to view the error description. You can edit the process and restart the data transfer again.
6. In the **Configure process** dialog, you can select a pool, activities, or sub-processes to be transferred. The elements included are displayed in a hierarchical list.
   a. Click the icon next the pool name and select a pool in the drop-down menu. The first pool in the model is preselected by default. Depending on the selected pool, you can select, for example, call activities or sub-processes that are included in the pool.
   b. Click the icon next the pool name to display the selectable elements included in the pool. The displayed elements can contain further subordinate elements.

c. Select the elements in the list. If you select an element deeper in the list, the parent elements are also automatically selected. For processes that are only used for process overlay, embedded elements are only displayed if they do not contain a process assignment in ARIS, but are directly embedded.

d. Click **Transfer**. The **Transfer process** dialog opens and the process data is transferred to ARIS Process Mining.

7. The **Transfer process** dialog provides various options to proceed.

   a. You can open ARIS Process Mining to create an activity mapping (page 22). Click **Open activity mapping**.

   b. To view the process that has been transferred to ARIS Process Mining, click **Open transferred model**. The process is displayed in the ARIS model editor.

   c. To create an activity mapping at a later time, click **Close**.

The BPMN process is transferred to ARIS Process Mining and stored as reference process in the data set. The transferred process is available in the **Reference processes** section of the data set and labeled as **New**.

All transferred models and error log models are stored in the **ARIS Process Mining** group and its subgroups. This group is a subgroup of the **Main** group in the ARIS database. The models are stored so that they can be inspected if required.

After the process has been transferred to ARIS Process Mining, you can create an activity mapping in ARIS Process Mining (page 22).

## 2.3 Create activity mappings

To evaluate the process flow in ARIS Process Mining in line with the reference process, you must map the modeled tasks of the reference process to the activities of the source system.

The mapping is created based on the names of modeled tasks and the activities from the source system. Various modeled tasks of the reference process with the same names are reduced to one task and treated as one accordingly.

The source system might provide activity names that differ from the modeled task names in ARIS. If the modeled tasks and provided activities have the same names, they can be mapped automatically.

Note that if you change the currently activated event log used in your analysis model, the current activity mapping remains unchanged. However, changes are displayed in the current activity mapping, for example, deleted activities in the changed event log are displayed as a **User-created activity** in the activity mapping.

### Prerequisites

- Data was loaded from the source system into the data set.
- You have transferred the reference process to the data set.
- You have at least the **Edit** privilege for the data set for your conformance analysis.

### Procedure

1. Open the data set that contains the process for which you want to create an activity mapping.
2. Click **Reference processes** in the data set panel. The **Reference processes** section opens with the **Reference processes** page. The page lists all reference processes that are available for the data set.
3. Click the name of a reference process. The page to create a mapping opens.
4. Click **Automatic mapping** to automatically map the tasks and activities of the same name. If no identical names exist, the option is not available.
5. You can map tasks and activities manually.
   a. First select a task or an activity on one of the two sides. The selected element is placed at the top of the list, all other elements are grayed out.
   b. Select the element to be mapped according to your first selection on the other side. The mapped elements are connected and placed on the same line below the unmapped elements.
   c. To undo a mapping, move the mouse pointer over a mapped element and click the **Reset** icon.
6. You can mark a task or an activity as **ignored**. The marked element is not used for the conformance analysis. Move the mouse pointer over an element and click **Mark as ignored**. The element is crossed out.

   To undo your selection, move the mouse pointer over an element and click the **Reset** icon.
7. You can mark an activity as **unwanted**. The marked element is considered in the analysis as an "**is unwanted**" issue type (page 5). Move the mouse pointer over an element and click **Mark as unwanted**. The element is crossed out.

   To undo your selection, move the mouse pointer over an element and click the **Reset** icon.
8. You can see whether a task has already been mapped to an activity and use this mapping.
   a. Move the mouse pointer to a task.
   b. Click the **Show other mappings** button. Existing mappings are shown, if available.

   c. Select a mapping. The selected mapping is assigned to the task.

9. You can add a new activity that does not yet exist in the data set if, for example, you want to include a task in your analysis, but there is no matching activity yet.
   a. Click **+ Add activity**.
   b. Enter a name and click **Add**.

      The new activity is added to the activity list. To delete the activity, move the mouse pointer over the activity and click the **Delete** icon.

10. Click **Activate mapping** to save and activate the mapping for the data set.
11. If required, click **Recalculate** to (re) calculate the conformance. ARIS Process Mining calculates the conformance of the cases and loads it into the data set.

You have created an activity mapping and loaded it into the data set.

Go back to the **Reference process** page. The **Mapping** state of the reference process is set to **Complete**.

If you want to use the mapping in the **Compliance** app to analyze the conformance of your processes (page 3), select the reference process and click **Select for conformance check**.

## 2.4 Edit an activity mapping

You can edit an activity mapping. For example, change the mapping of a task and an activity, or add a new activity to the mapping.

Note that if you change the currently activated event log used in your analysis model, the current activity mapping remains unchanged. However, changes are displayed in the current activity mapping, for example, deleted activities in the changed event log are displayed as a **User-created activity** in the activity mapping.

### Prerequisites

You created an activity mapping. (page 22)

### Procedure

1. Open the data set that contains the reference process with the mapping you want to edit.
2. Click **Reference processes** in the data set panel. The **Reference processes** section opens with the **Reference processes** page. The page lists all reference processes that are available for the data set.
3. Click a name of a reference process. The page with the mapping opens.
4. To undo a mapping, move the mouse pointer over a mapped element and click the **Reset** icon.

5. To remove the **Ignored** label from a task, move the mouse pointer over the task and click the **Reset** set icon.
6. To remove the **Ignored** or **Unwanted** label from an activity, move the mouse pointer over the activity and click the **Reset** set icon.
7. Click **Automatic mapping** to automatically map the tasks and activities of the same name. If no identical names exist, the option is not available.
8. You can map tasks and activities manually.
   a. First select a task or an activity on one of the two sides. The selected element is placed at the top of the list, all other elements are grayed out.
   b. Select the element to be mapped according to your first selection on the other side. The mapped elements are connected and placed on the same line below the unmapped elements.
9. You can mark a task or an activity as **ignored**. The marked element is not used for the conformance analysis. Move the mouse pointer over an element and click **Mark as ignored**. The element is crossed out.
10. You can mark an activity as **unwanted**. The marked element is considered in the analysis as an "**is unwanted**" issue type (page 5). Move the mouse pointer over an element and click **Mark as unwanted**. The element is crossed out.
11. You can see whether a task has already been mapped to an activity and use this mapping.
    a. Move the mouse pointer over a task.
    b. Click the **Show other mappings** button. Existing mappings are shown, if available.
    c. Select a mapping. The selected mapping is assigned to the task.
12. You can add a new activity that does not yet exists in the data set, for example, if you want to include a task in your analysis, but there is no matching activity yet.
    a. Click **+ Add activity**.
    b. Enter a name and click **Add**.

       The new activity is added to the activity list. To delete the activity, move the mouse pointer over the activity and click the **Delete** icon.
13. Click **Update mapping** to save and activate the mapping for the data set.
14. If required, click **Recalculate** to (re) calculate the conformance. ARIS Process Mining calculates the respective conformance of the cases and load it into the data set.

You changed an activity mapping and loaded it into the data set.

Go back to the **Reference process** page. The **Mapping** state of the reference process is set to **Modified**.

If you want to use the mapping in the **Compliance** app to analyze the conformance of your processes (page 3), select the reference process and click **Select for conformance check**.

## 2.5 Display process details

You can display process details, such as the transferred reference processes, and the corresponding subordinate processes. You can open a process to view or edit the transferred reference process, for example.

**Procedure**

1. Open the data set that contains the reference process.
2. Click **Reference processes** in the data set panel. The **Reference processes** section opens with the **Reference processes** page. The page lists all reference processes that are available for the data set.
3. Select a reference process.
4. Click the **Details** icon. A panel with detailed information about the selected process is displayed, for example showing the mapping status, the number of process tasks included, a description (if exists), and a list of models contained in the reference process.
5. Click a model name in the list.

The selected model opens in the ARIS model editor.

## 2.6 Replace a reference process

You can replace a transferred reference process, for example, if the process in ARIS changed or if you want to use a different sub-process.

**Prerequisites**

You added at least one reference process to a data set. (page 16)

**Procedure**

1. Open the data set that contains the reference process.
2. Click **Reference processes** in the data set panel. The **Reference processes** section opens with the **Reference processes** page. The page lists all reference processes that are available for the data set.
3. Select a reference process.
4. Click **Replace**. The **Specify details** dialog of the transfer process opens.
5. If you want to select another model, click **Back** and select a model.

6. Perform the process transfer as described in the chapter **Transfer a reference process**. (page 16)

You replaced a reference process.

Note that the state of the mapping changes to **Modified** and that you must update the activity mapping for the replaced process.

## 2.7 Enable a reference process for the conformance check

If you want to use an already transferred reference process that is not available for the conformance check, you must first enable the **Conformance check** option.

### Prerequisites

You transferred a least one reference process from ARIS. (page 16)

### Procedure

1. Open the data set that contains the reference process.
2. Click **Reference processes** in the data set panel. The **Reference processes** section opens with the **Reference processes** page. The page lists all reference processes that are available for the data set.
3. Select the process.
4. Click **Replace**. The **Specify details** dialog of the transfer process opens.
5. Enable the **Conformance check** option.
6. Click **Next**. The **Configure process** dialog opens.
7. Click **Transfer**. The **Transfer process** dialog opens.
8. Click **Close**. The **Reference processes** page is displayed again.
9. If required, click **Recalculate**.

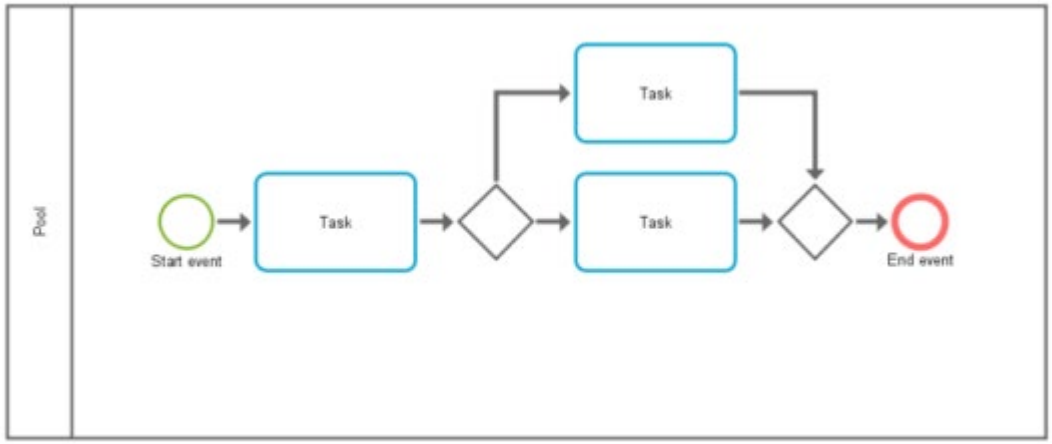
The selected reference process is available for conformance check and marked with a white flag ().

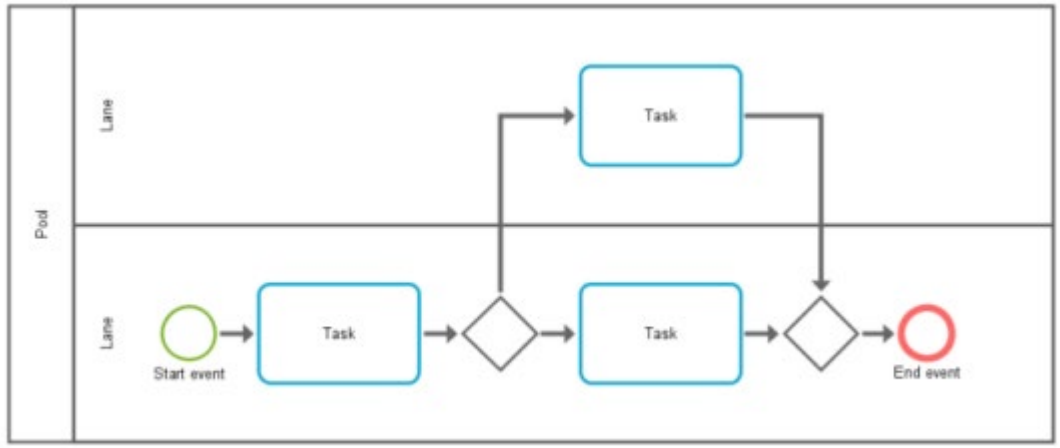
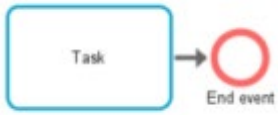
Note that the state of the mapping changes to **Modified** and that you must update the activity mapping for the replaced process.

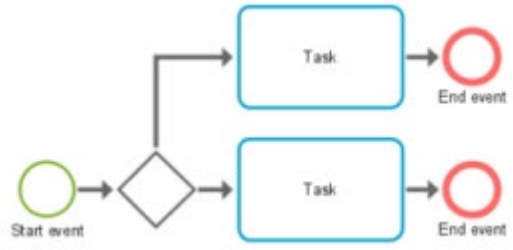
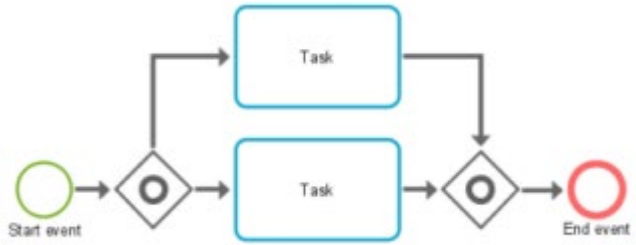
## 2.8 Modeling convention

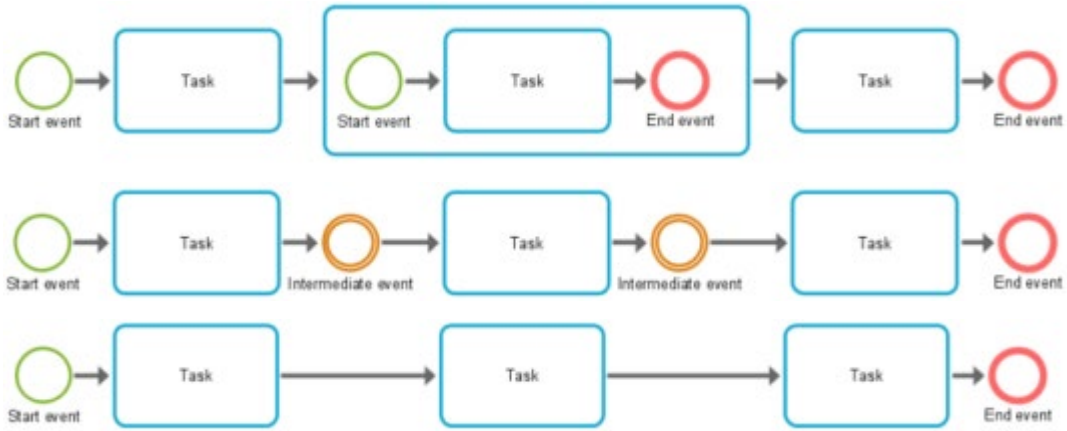
The reference model created in ARIS must conform to the following modeling conventions. These conventions are illustrated with BPMN examples, but they apply to EPC reference models analogously.

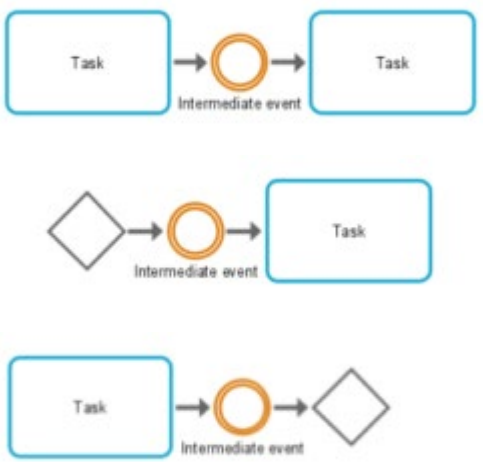
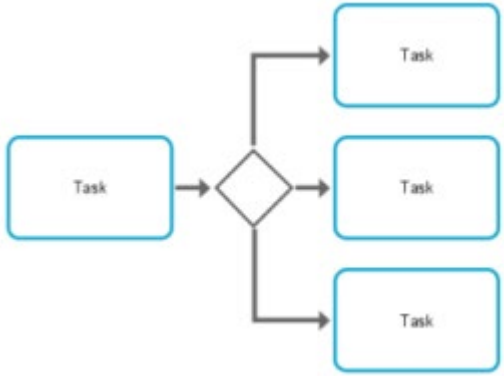
| Context | Convention | Reason / example |
|---|---|---|
| Model types | The following BPMN models are currently supported:<br>▪ Enterprise BPMN collaboration diagram<br>▪ Enterprise BPMN process diagram<br>▪ BPMN process diagram (BPMN 2.0)<br>▪ BPMN collaboration diagram (BPMN 2.0)<br>▪ All EPC model types except material flow are supported. | |

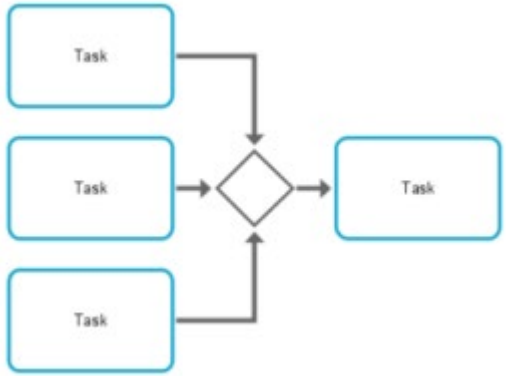
| Context | Convention | Reason / example |
|---|---|---|
| Object types | Object types are reduced to:<br>▪ Start event<br>▪ Intermediate event<br>▪ End event<br>▪ Activities / Tasks<br>▪ Inclusive gateway<br>▪ Exclusive gateway<br>▪ Parallel gateway | |
| Connection types | Connection types are reduced to sequence flow connections. | |
| Pools | Only items from exact one pool are considered. |  |

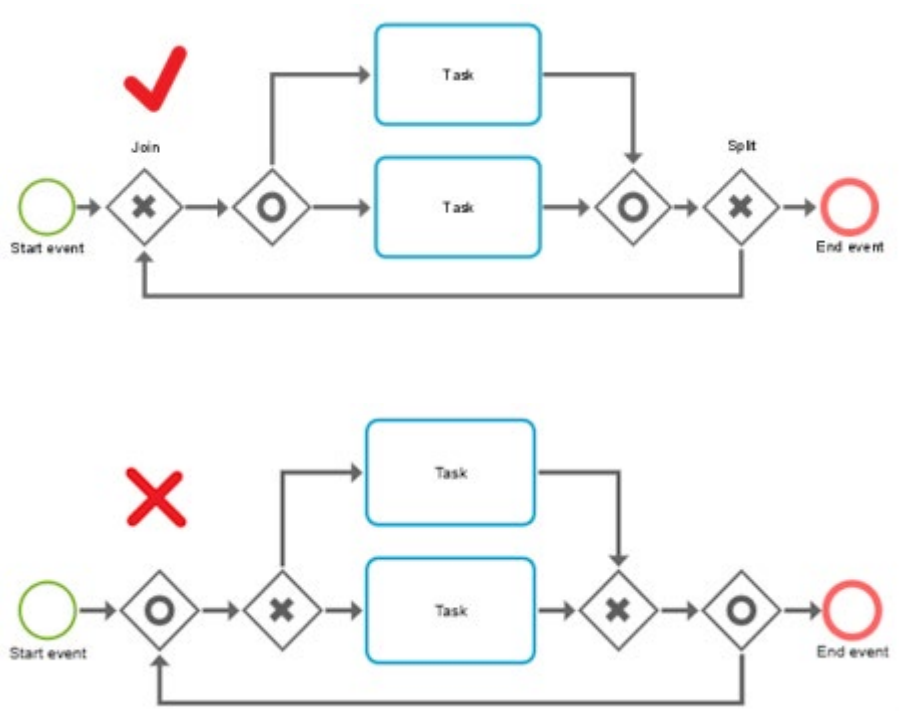
| Context | Convention | Reason / example |
|---|---|---|
| Lanes | All lanes will be integrated. |  |
| Start event | Only start events with any start event symbol are allowed.<br>Only one start event is allowed.<br>Start event have exactly one outgoing connection.<br>Note that the structure of multiple nested start events is simplified and partially consolidated for the transfer model. |  <br>  <br>  |

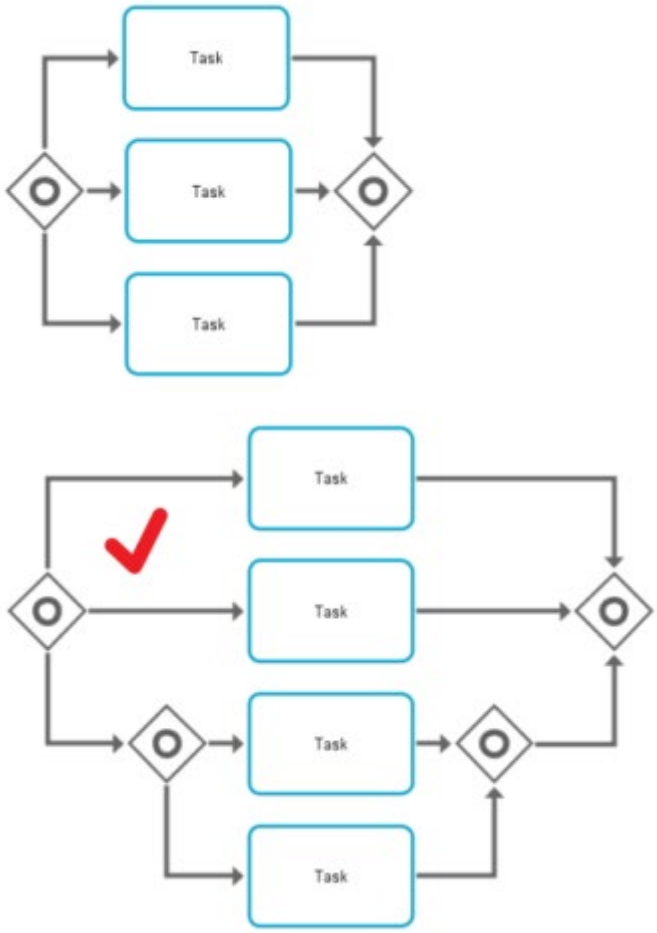
| Context | Convention | Reason / example |
|---|---|---|
| Tasks | A task has exact one incoming and one outgoing connection.<br>Only tasks that are somehow reached from the start event are considered (no isolated tasks). |  |
| End event | Only end events with end event symbol are allowed.<br>More than one end event is allowed.<br>End event have exactly one incoming connection.<br>Note that for inclusive gateways, the rules of 'closed brackets' must be followed (see below). |  |

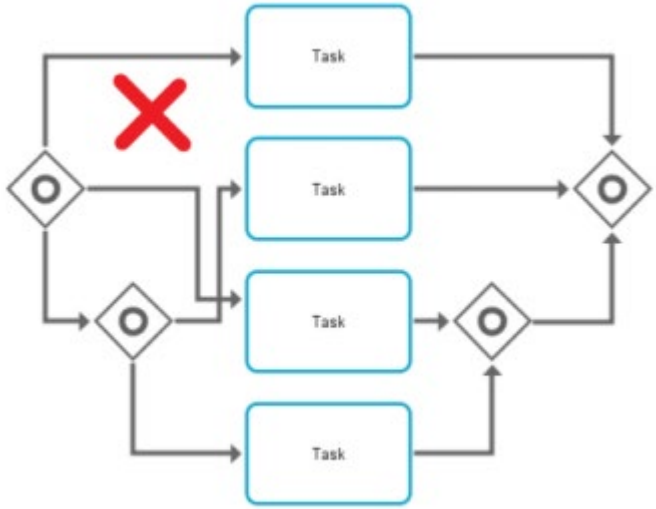
| Context | Convention | Reason / example |
|---|---|---|
| Start and end events at embedded (sub)processes | Only start events with start event symbol are allowed<br>Only one start event is allowed.<br>Only one end event is allowed.<br>Only end events with end event symbol are allowed.<br>Result in intermediate event.<br>Note that embedded subprocesses are included in the reference process but assigned subprocesses are not, as they are not on the same model. If you collapse an embedded subprocess, it is converted into an assigned subprocess, although it may be shown like an embedded subprocess after expanding it afterwards. |  |

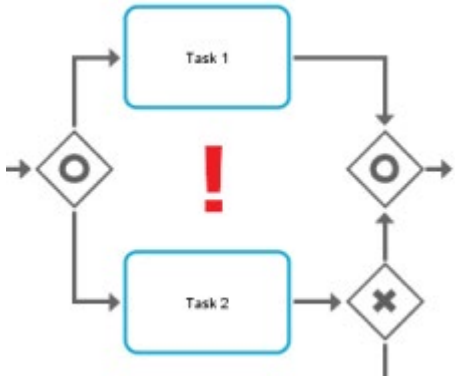
| Context | Convention | Reason / example |
|---|---|---|
| Intermediate events | Intermediate events are allowed but will be eliminated in the transfer model. |  |
| Split gateways | Split gateways have exactly one incoming and more than one outgoing connection. |  |

| Context | Convention | Reason / example |
| --- | --- | --- |
| Join gateways | Join gateways have more than one incoming and exactly one outgoing connection. |  |

| Context | Convention | Reason / example |
|---|---|---|
| Cycles and loops | Self-loops are not allowed.<br><br>Cycles are allowed, according the following rules:<br><br>Since the sequence of split and join gateways is usually reversed (the first in the model is the join gateway and the second is the split gateway), exclusive gateways are recommended. In particular, models with such loops using inclusive gateways are not transferred to ARIS Process Mining, and models with loops using parallel gateways will have no conformant processes.<br>Any gateway that is opened within the cycle must be closed within the cycle. |  |

| Context | Convention | Reason / example |
|---|---|---|
| OR-gateways:<br>▪ closed bracket<br>▪ nested gateway brackets | An inclusive join gateway (OR gateway) and the next preceding split gateway create a "closed bracket".<br><br>Each 'closed brackets' split and join gateway must have direct and completed branches between both with not overlapping or crossing connections.<br><br>Each join gateway must close all branches opened with the next predecessor split gateway.<br><br>All opened branches must be closed in a 'closed bracket' style.<br><br>'Closed bracket' style split-join sets can be nested. |  |

| Context | Convention | Reason / example |
| --- | --- | --- |
| | |  |

| Context | Convention | Reason / example |
| --- | --- | --- |
| OR-gateways: brackets with second way out | An inclusive join gateway (OR gateway) and the next preceding split gateway ('closed brackets') must not have a 'second way out' so that the process may leave the 'closed bracket'.<br><br>This modeling can result in conforming cases not being identified as such, but being presented as non-conformant. |  |

# 3 Compliance

## 3.1 Manage conformance checks

The process conformance check (page 1) compares the structure of cases to one or multiple reference processes and calculates relevant measures and dimensions. Depending of the ARIS Process Mining version that you use, you can select only one reference process (page 39) or select multiple reference processes (page 40) to perform a conformance check.

### 3.1.1 Conformance check for one reference process

Select a reference process to perform a conformance check.

**Prerequisites**

You added at least one reference process to a data set that is available for a conformance check. (page 16)

The process must have an activated activity mapping. (page 22)

**Procedure**

1. Open the data set that contains the reference process.
2. Click **Reference processes** in the data set panel. The **Reference processes** section opens with the **Reference processes** page. The page lists all reference processes that are available for the data set.
3. Select a reference process that is marked with a white flag (). This means that the process is available for the conformance check. A process that is marked with a black flag () is already selected for the conformance check. A process without a flag is not available for the conformance check.
4. Click **Select for conformance check**.
5. If you want to use a process that is not available for the conformance check, you must first enable the **Conformance check** option.
   a. Select the process.
   b. Click **Replace**. The **Specify details** dialog of the transfer process opens.
   c. Enable the **Conformance check** option.
   d. Click **Next**. The **Configure process** dialog opens.
   e. Click **Transfer**. The **Transfer process** dialog opens.
   f. Click **Close**. The **Reference processes** page is displayed again.
   g. Select the process and click **Select for conformance check**.

6. If required, click **Recalculate**.

You selected a reference process to perform a conformance check.

### 3.1.2 Conformance check for multiple reference processes

You can select multiple reference processes to perform a conformance check (page 40) and also to define filters (page 41) to determine which reference process is used for which cases. This improves the accuracy of your analyses.

LICENSE RESTRICTIONS

- The multiple selection of reference processes for the conformance check is only available for ARIS Process Mining **Advanced** and **Enterprise**. ARIS Process Mining **Advanced** and **Enterprise** also allow the export and import of projects that use multiple reference processes.
- ARIS Process Mining **Basic** allows only the single selection of a reference process for the conformance check. That is, you cannot add more than one reference process to the conformance configuration. This restriction also applies to importing reference processes from a solution.

#### 3.1.2.1 Select multiple processes for a conformance check

You can select one or more reference processes to perform a conformance check.

**Prerequisites**

You use ARIS Process Mining **Advanced** or **Enterprise**.

You added at least one reference process to a data set. (page 16)

The reference processes must be available for the conformance check. (page 16)

The reference processes must have an activated activity mapping. (page 22)

**Procedure**

1. Open the data set that contains the reference processes.
2. Click **Compliance** in the data set panel. The **Compliance** section opens with the **Conformance** page.
3. Click **Add**. The dialog to select reference processes opens. The dialog only provides processes that are available for the conformance check and their mapping is set to **Complete** or **Modified**.

4. Select one or more reference processes and click **Add**. The selected reference processes are listed on the **Conformance** page.

   The state of the added processes is **Not active**. This means that the processes will not yet be used for the conformance check.
5. Select one or more reference processes on the **Conformance** page.
6. Click **Activate**.
7. If required, click **Recalculate**. You must trigger a recalculation if you activate a reference process or change the settings of activated reference processes.
8. The order of the reference processes in the list determines the calculation priority. To move a reference process in the list, select a process and click **Move up** or **Move down**. You can also move a line in the list with the mouse pointer by dragging and dropping it.

   For more details, see the Define filters for the reference processes (page 41) chapter.

You selected reference processes for the conformance check. The processes are labeled with the **Active** state.

To deactivate processes for the performance check, select the processes and click **Deactivate**. If you select multiple reference processes with different states, only the **Activate** option is available.

You can display more process details. Select a reference process in the list and click the **Details** icon. A panel with detailed information about the selected process is displayed.

### 3.1.2.2 Define filters for the reference processes

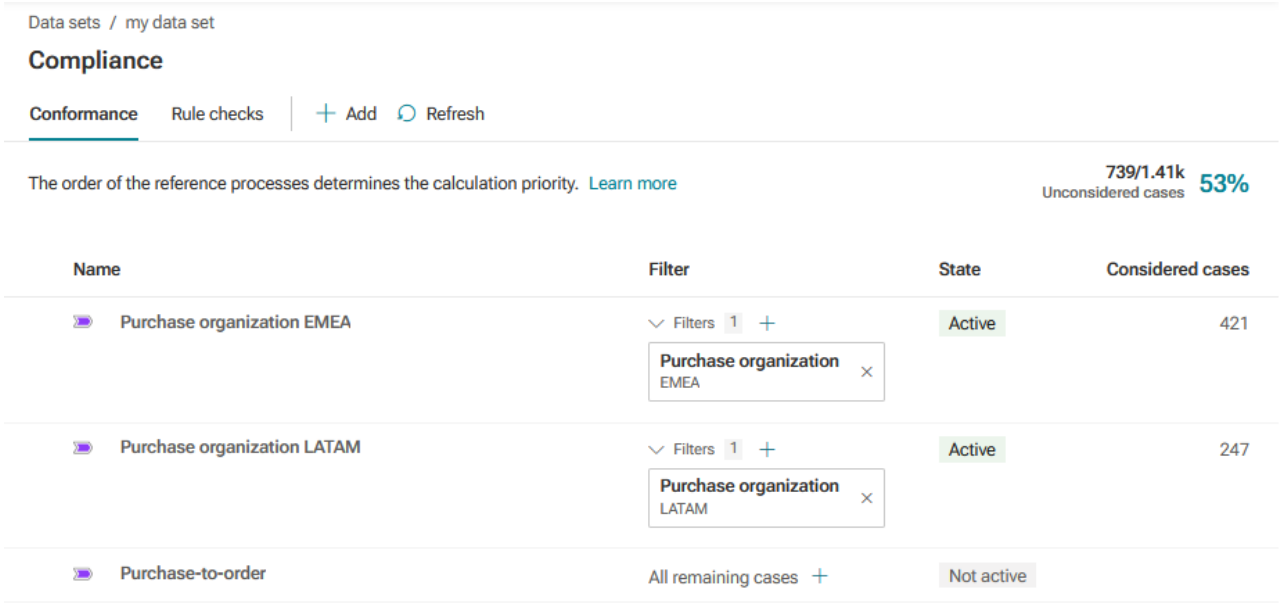
You can define one or more filters for a reference process to determine which reference process is used for which cases. By default, the filter of a reference process is set to **All remaining cases**. That means all cases are checked for conformance with this reference process. However, you can define more fine-grained filters for each reference process.

Note that the order of the reference processes determines the calculation priority. This means that the reference processes and their filters are processed from top to bottom in the list. The cases filtered for the first reference process are not considered for the following reference processes in the list. This applies accordingly to the filtered cases of the second reference process, and so on. If the filter of the first reference process is set to **All remaining cases**, all cases are checked against the first reference process. All following reference processes are not considered in the conformance check. The number of considered cases is displayed for each activated reference process. The total number of unconsidered cases is displayed above the list.

You can set the calculation priority (page 40) by changing the order of the reference processes in the list.

### Example

The example shows two activated reference processes, one process with a filter that only considers cases from the EMEA organization and a second process with a filter for cases from the LATAM organization. The third reference process with the default filter (**All remaining cases**) is not used as it is not activated. The number of cases considered for each reference process and the total number of cases that are not checked for conformance are also displayed.




### Prerequisites

You added one or more reference processes to the conformance configuration. (page 40)

### Procedure

1. Open the **Conformance** page in the **Compliance** section. (page 40)
2. Click the **+ Add filter** button for a reference process. The **Add field filter** dialog opens.
3. Create a field filter.
   a. Select a field in the **Fields** panel.

      The fields **Case compliance**, **Case conformance**, **Reference process**, and **Fitness value** are calculated by the conformance check and cannot be used to create a filter.

   b. Define a filter condition. Depending on the selected field, different options are available.

   c. Click **Add**.

   The filter is added to the reference process. The number of filters added to the reference process is displayed.

4. To display the filters defined for a reference process, click the icon.
5. To edit a filter, click the relevant filter. The corresponding dialog opens.
6. If required, click **Recalculate**. You must trigger a recalculation if you activated a reference process or change the settings of activated reference processes.

You created a filter for a reference process.

To remove all filters of a reference process, move the mouse pointer over a reference process, click ... **More options**, and then click **Reset filters**.

Note the following when creating a field filter.

If you select one of the fields mentioned above to create a filter and the reference process is set to 'Active', an error message is displayed when you close the filter dialog. If the reference process is set to 'Not active', the error message is not displayed and the criterion is added as a filter. In this case, the error message is only displayed when the process is subsequently activated.

## 3.2 Manage compliance rules

### 3.2.1 Create a compliance rule

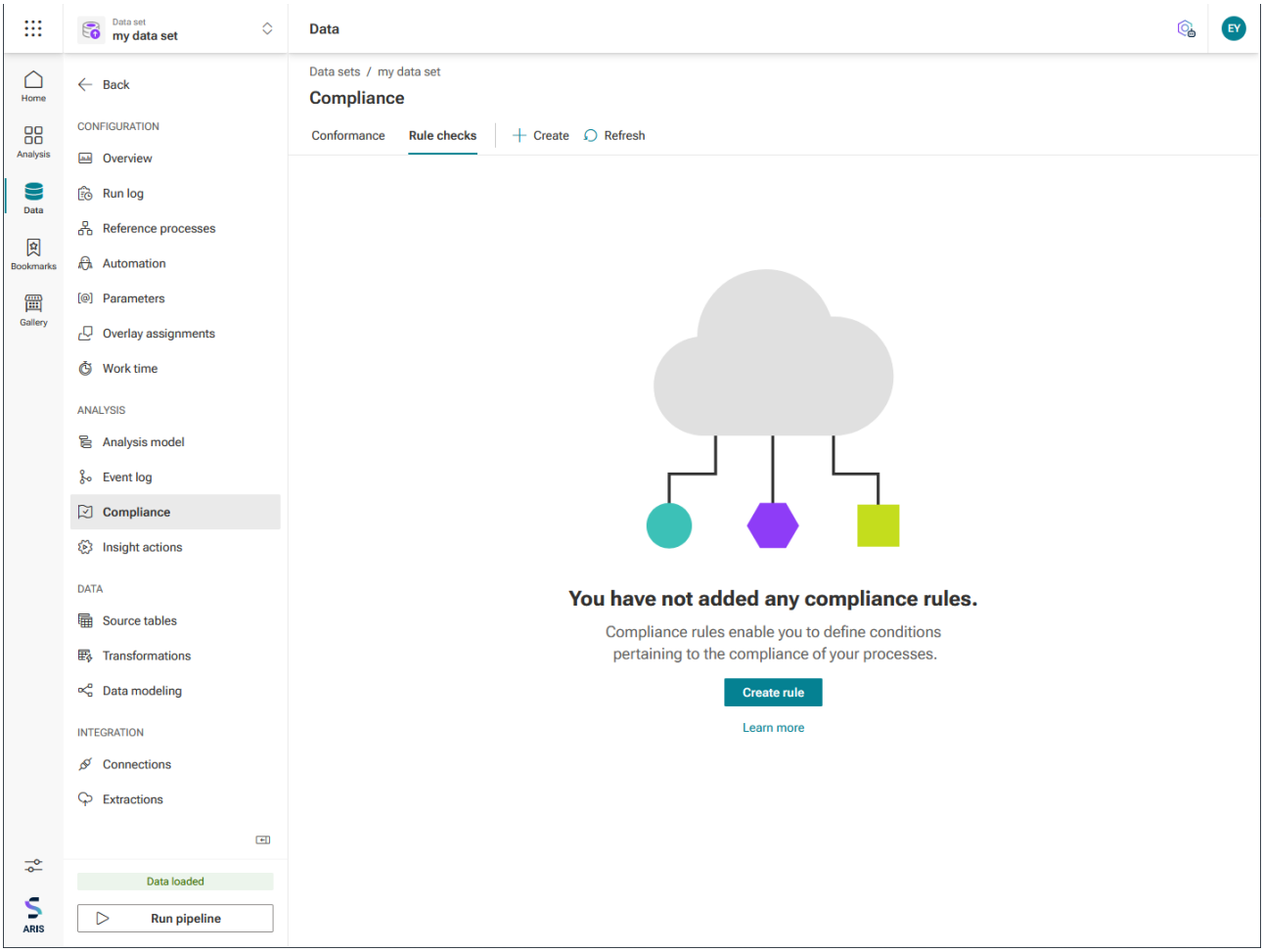
You can create one or more compliance rules that you can use for a compliance rule check.

**Procedure**

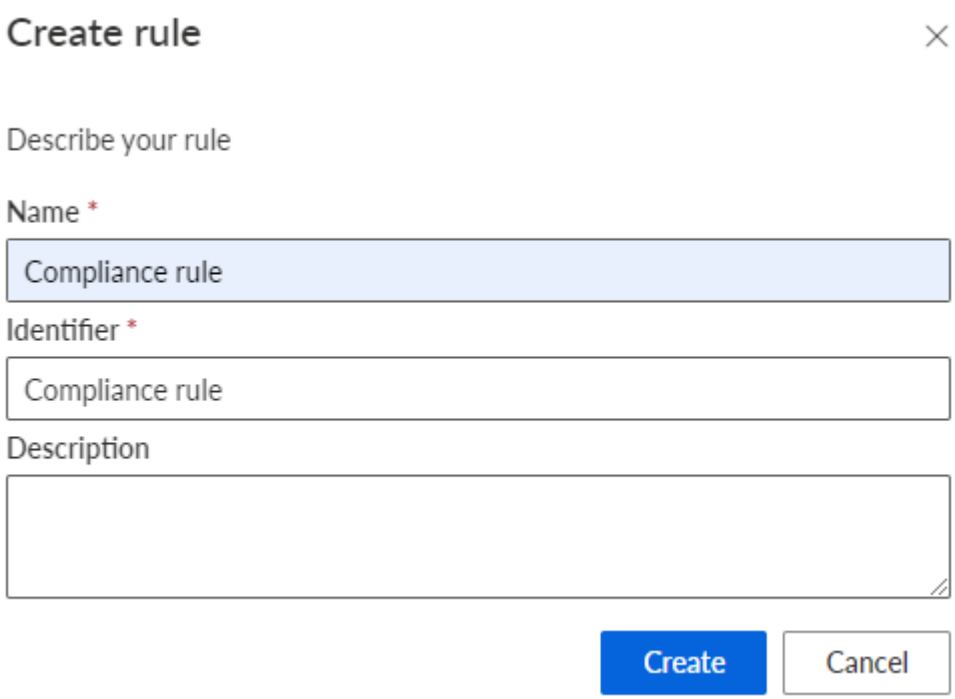
1. Open the data set that contains the processes for which you want to perform a compliance rule check.
2. Click **Compliance** on the data set panel. The **Compliance** section opens with the **Conformance** page.
3. Click **Rule checks**. The page to manage compliance rules opens.

   **Example**

The page looks like this if no rule has been created yet.




4. Click **Create rule**. The corresponding dialog opens.



5. Specify a rule name. The name will be displayed in the **Compliance** app if the rule is violated. This name is language-independent and cannot be translated.
6. Specify an identifier. The identifier must be unique for each compliance rule.
7. You can enter an optional description.
8. Click **Create**.

You created a compliance rule. The page of the created compliance rule opens.

You can now define a condition for the created rule (page 45).

### 3.2.2 Create a condition for a compliance rule

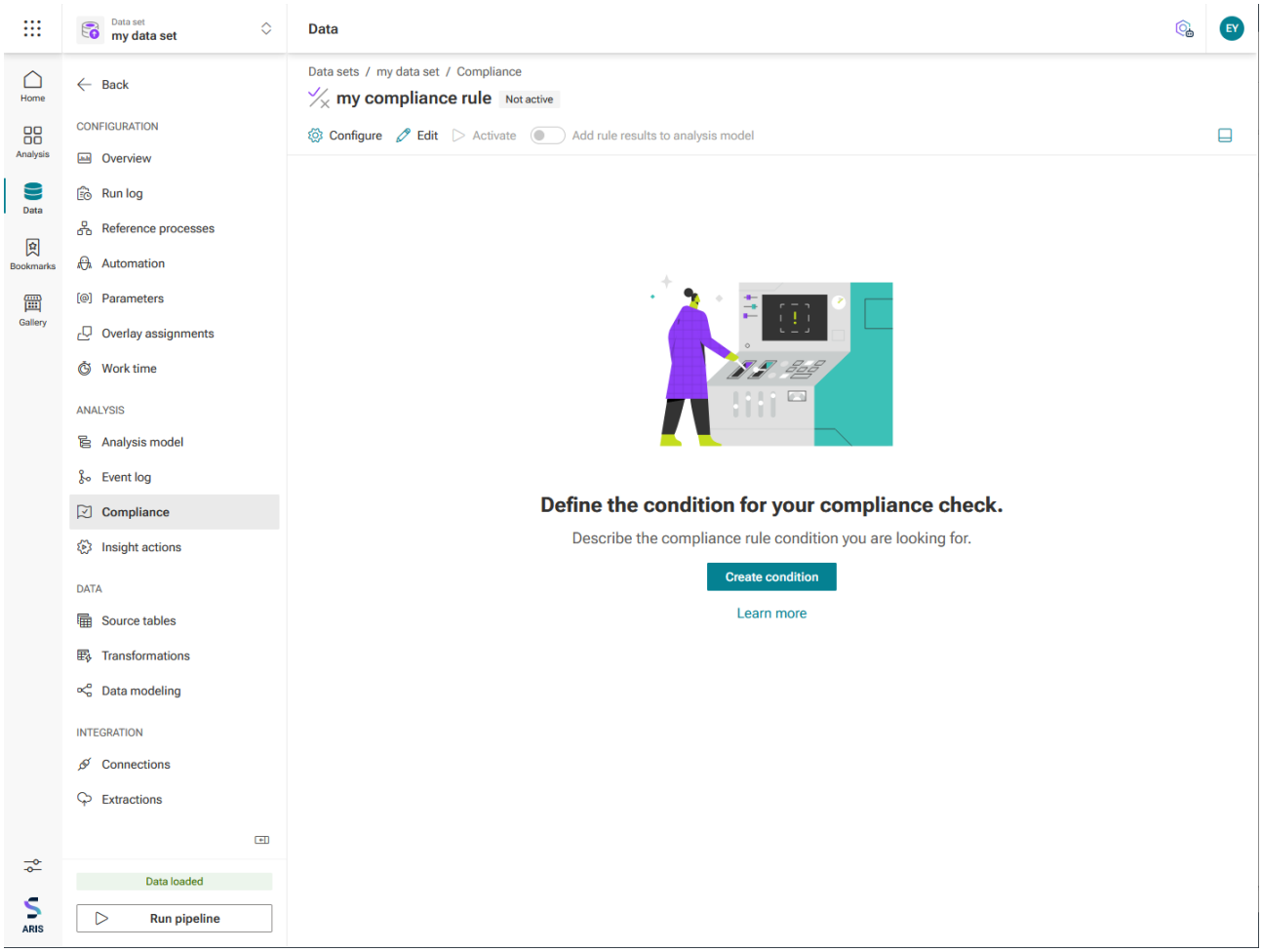
Create a condition for the rule that must be met for the cases to be compliant.

**Procedure**

1. Open the data set that contains the compliance rule.
2. Click **Compliance** on the data set panel. The **Compliance** section opens with the **Conformance** page.
3. Click **Rule checks**. The **Rule checks** page opens.
4. Click a compliance rule. The page of the compliance rule opens.

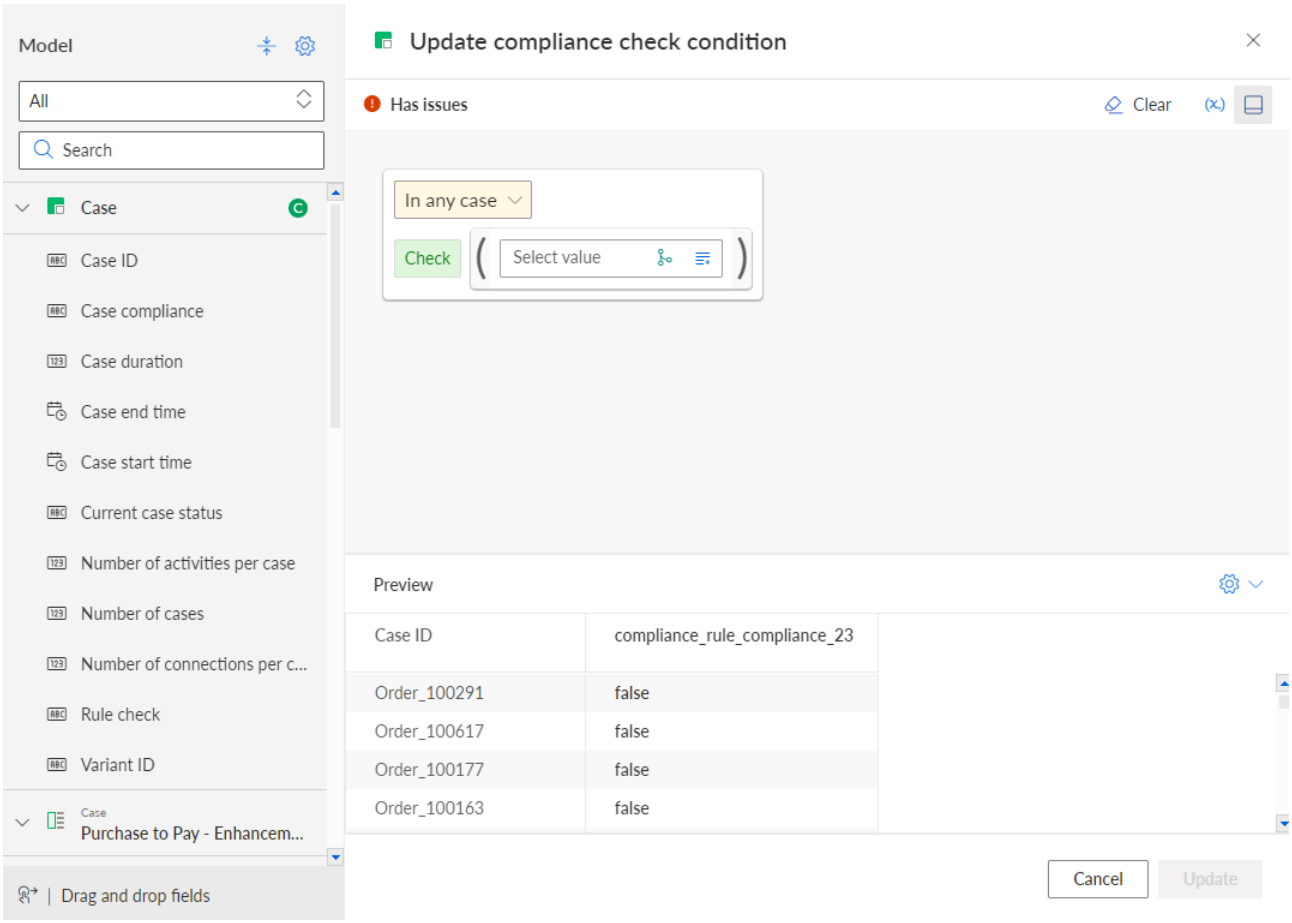
   **Example**

Page of a created compliance rule. No rule condition has been created yet.



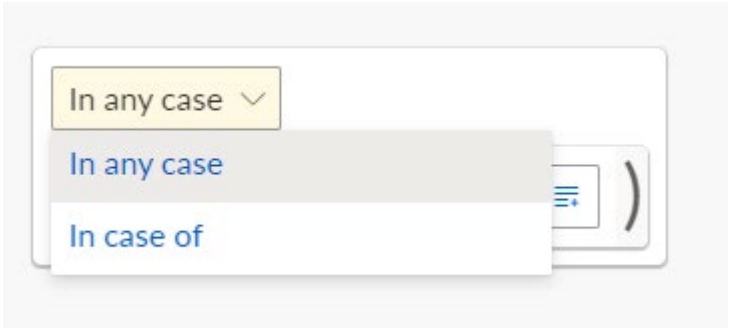

5. Click **Create condition**. The page for creating a rule condition opens including a preset condition.

### Example




6. You can now define a rule condition using the visual editor. For details on using the editor, see the chapter Use the visual editor.

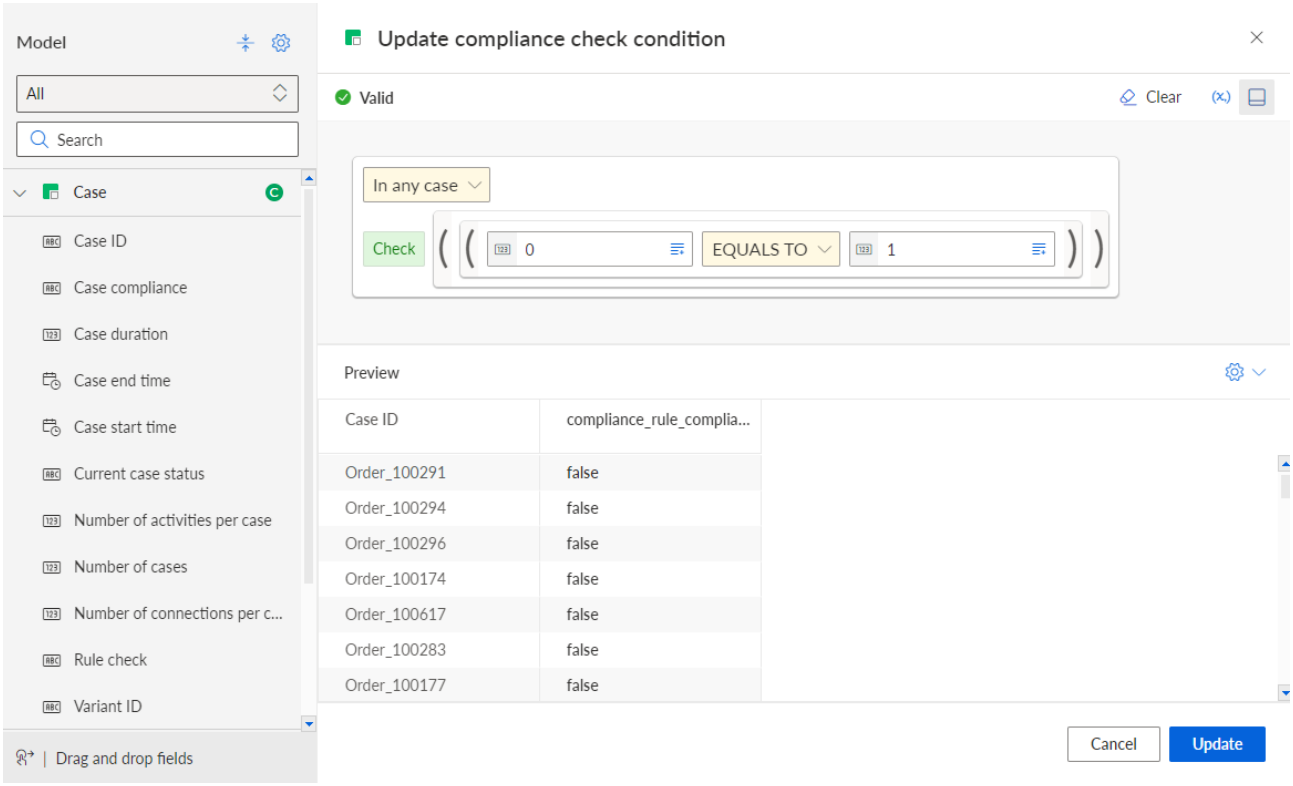
   Each condition consists of two Boolean expressions: the scope and the requirement. The scope restricts which cases are covered by the rule, namely all cases for which it evaluates to true. If you want the rule to apply without restriction, you do not need to specify an explicit scope, but can select **In any case**.




   The requirement is the part that is evaluated to determine if a case in scope complies with the rule. If a case is out of scope, the case cannot violate the rule and passes the test without having to meet the requirement. In other words, the whole rule is evaluated as false only if the scope is evaluated as true and the requirement is evaluated as false. In all other cases, the rule is evaluated as true.

### Example

As an example, we define a very simple rule that applies to all cases and always fails. If your rule is syntactically well-formed, you can preview the evaluation results.



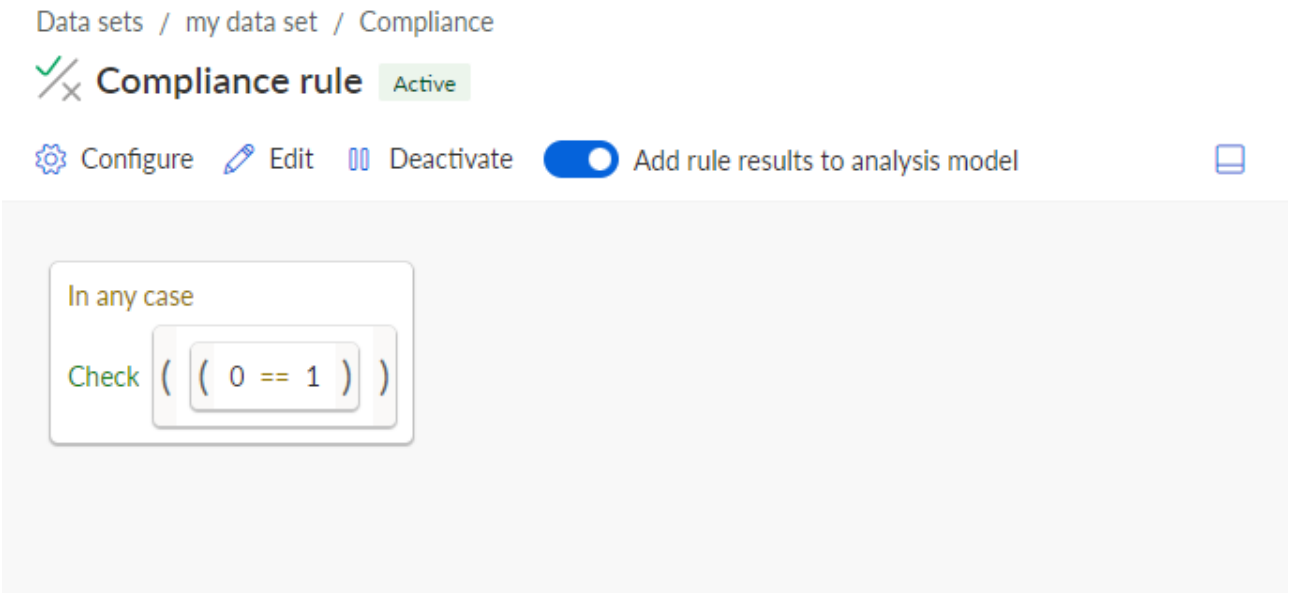

7. Click **Update**.

You have created a rule condition. The condition is displayed on the rule page.

You must explicitly activate the rule to apply it (page 49).

### Example

Activated compliance rule including a rule condition.



### 3.2.3 Activate a compliance rule

You must explicitly activate the compliance rule for it to be applied (page 49). Only activated rules are available in your analyses.

The activated compliance rule is available in the list of compliance rule issues in the **Compliance** app. You can push an issue with a specific rule as a filter from the **Compliance** app (page 3).

You can also use the compliance rule as a symptom in root cause mining.

**Procedure**

1. Open the data set that contains the compliance rule.
2. Click **Compliance** on the data set panel. The **Compliance** section opens with the **Conformance** page.
3. Click **Rule checks**. The **Rule checks** page opens.
4. Click a compliance rule. The page of the compliance rule opens.
5. Click **Activate**.

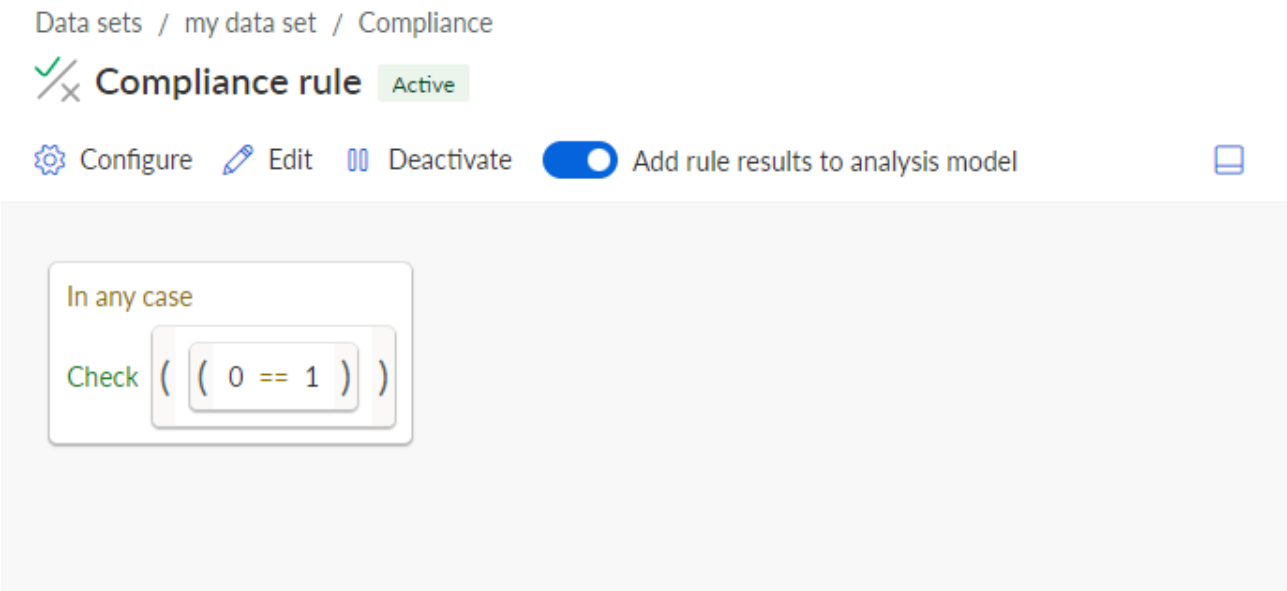
The compliance rule is activated for your analyses.

To disable the rule, click **Deactivate**.

You can make the activated rule available in the analysis model as an additional field. (page 50)

**Example**

Activated compliance rule including a rule condition.



### 3.2.4 Use a compliance rule in the analysis model

You can provide a compliance rule in the analysis model as an additional field that you can use as any other field in the analysis, for example to define a calculated field, create an insight trigger, or use it as an analysis criterion in an analysis outside the **Compliance** app.

**Prerequisite**

You have created a compliance rule. (page 43)

**Procedure**

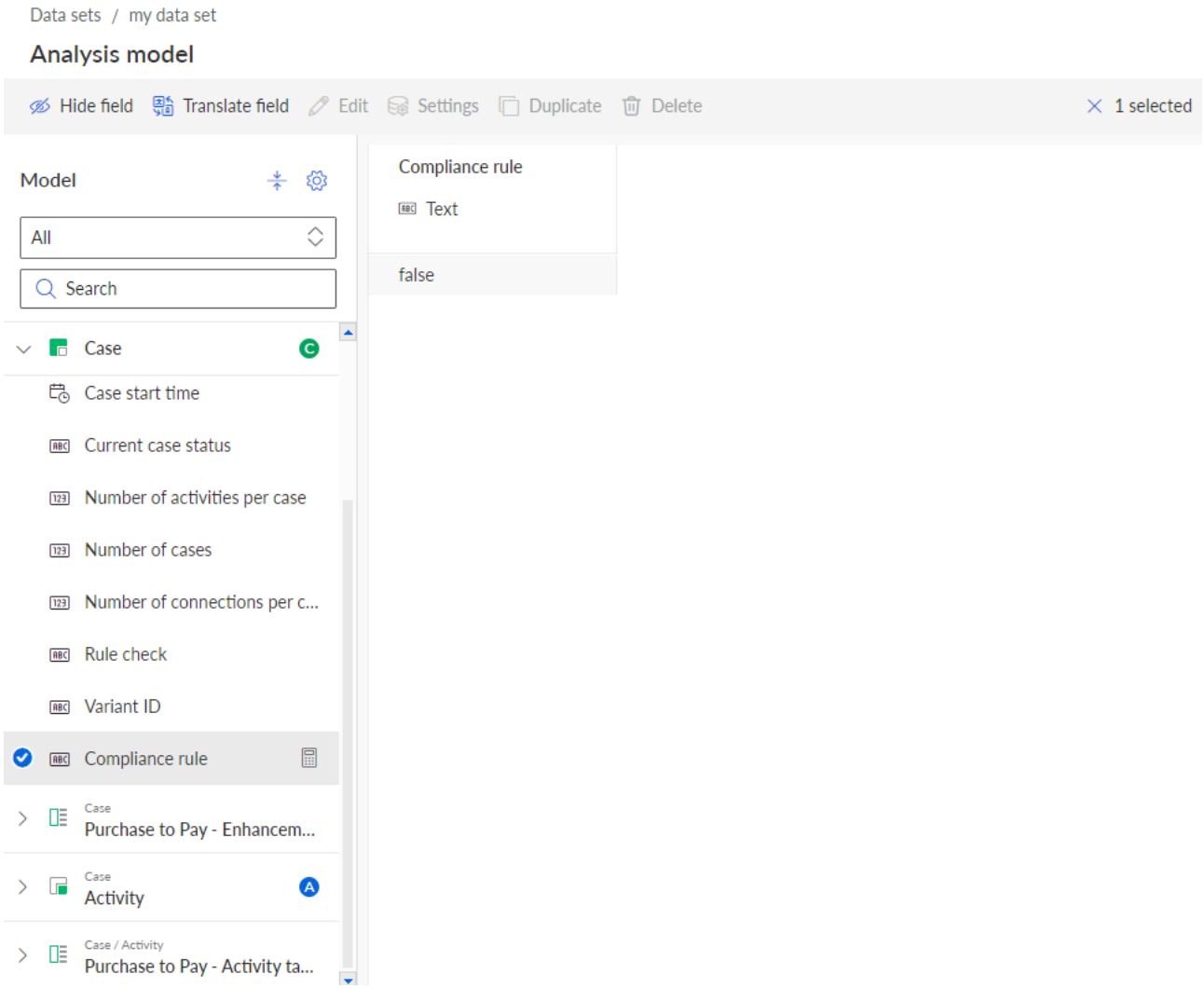
1. Open the data set for which you have created the compliance rule.
2. Click **Compliance** on the data set panel. The **Compliance** section opens with the **Conformance** page.
3. Click **Rule checks**. The page to manage compliance rules opens.
4. Click a compliance rule. The corresponding page opens.
5. Click **Activate** to enable the rule if not already done.
6. Enable the **Add rule results to analysis model** option.

You have enabled the use of the compliance rule in the analysis model. The compliance rule is now available as calculated field () in the analysis model.

You can translate the name of the calculated field (the field name that is used in analyses). But this name is independent of the rule name that appears in the rule configuration and the **Compliance** app.

### Example

The compliance rule is listed as a calculated field () under the **Case** object in the analysis model.




## 3.2.5 Delete a compliance rule

You can delete existing compliance rules. Note that a deleted compliance rule is removed from the **Rule checks** page and the **Compliance** app. But the rule data remains in the data set, as well as all calculated attributes for cases, all compliance checks, and filters. You must recalculate the compliance rule configuration (page 52) to remove the rule completely.

After you deleted a rule, you can create a new rule with the same name. However, you cannot create a new rule with the same ID as the deleted rule until you recalculate the compliance rule configuration (page 52).

**Warning**

Deleted compliance rules cannot be restored.

If you delete or disable an active rule on which other calculations depend, or remove the field from the analysis model, a warning dialog appears listing the dependent attributes. You can delete the rule, but the dependent calculations will no longer work.

**Procedure**

1. Open the data set that contains the compliance rule you want to delete.
2. Click **Compliance** on the data set panel. The **Compliance** section opens with the **Conformance** page.
3. Click **Rule checks**. The page to manage compliant rules opens.
4. Select the compliance rule.
5. Click **Delete**.
6. Click **Delete** again.

You deleted a compliance rule.

You must recalculate the data set (page 52).

## 3.2.6 Recalculate the data set

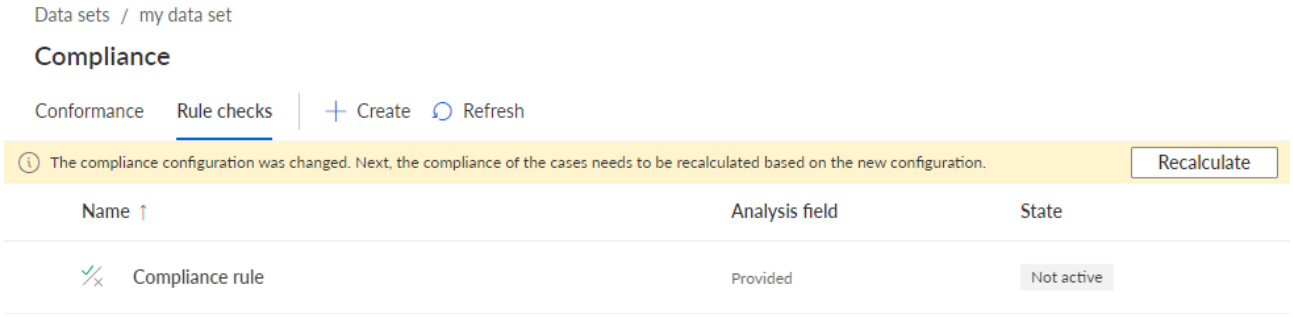
You must recalculate the data set when you make certain changes. For example, activating or deactivating a rule, creating or deleting a case column for an active rule, or changing the logic of an active rule require a recalculation. If a recalculation is required, you will be informed with an appropriate note.

**Procedure**

1. Open the data set that contains the compliance rule you want to recalculate.
2. Click **Compliance** on the data set panel. The **Compliance** section opens with the **Conformance** page.
3. Click **Rule checks**. The page to manage compliant rules opens.
4. Click **Recalculate**.

The data set is recalculated.

## Example


Data sets / my data set
Compliance
Conformance
Rule checks
Create
Refresh
The compliance configuration was changed. Next, the compliance of the cases needs to be recalculated based on the new configuration.
Recalculate
Name
Analysis field
State
Compliance rule
Provided
Not active

# 4 Integrate ARIS and ARIS Process Mining for conformance analysis

The integration of ARIS and ARIS Process Mining allows you to perform a conformance analysis (page 1).

The procedures for configuring the integration depend on the ARIS edition that you are using.

#### ARIS BASIC AND ADVANCED EDITION

If you are using ARIS **Basic** or **Advanced**, follow the configuration steps described in chapter Integration of ARIS Basic and Advanced (page 54).

#### ARIS ENTERPRISE EDITION

If you are using ARIS **Enterprise**, follow the configuration steps described in chapter Integration of ARIS Enterprise (page 63).

**Note**

If you use ARIS and ARIS Process Mining in a combined deployment, you do not need to integrate ARIS and ARIS Process Mining separately.

## 4.1 Integration of ARIS Basic and Advanced

### 4.1.1 Prerequisites

#### PREREQUISITES FOR ARIS PROCESS MINING

You have the **User admin** function privilege.

You have the **Data admin** function privilege.

#### PREREQUISITES FOR ARIS BASIC AND ARIS ADVANCED

You have the **Project room management** privilege.

**NOTE**

To be able to use the variants transfer from ARIS Process Mining to ARIS, a user account with the same name and the email address as user name must be available in ARIS Process Mining and ARIS.

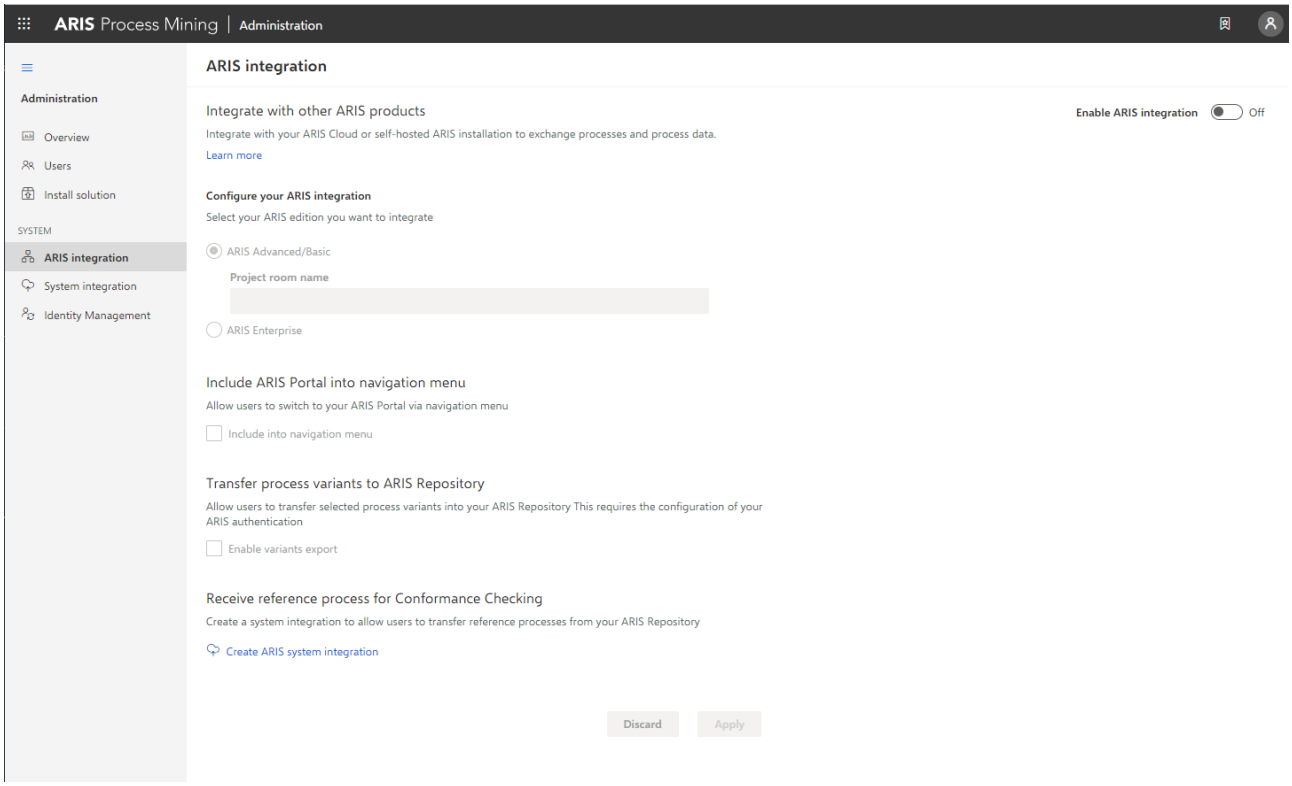
## 4.1.2 Configure the integration

To configure the integration of ARIS Process Mining and ARIS, open both applications in parallel in separate web browser tabs. For some settings, you need to copy data from one application to the other.

### OPEN THE ARIS INTEGRATION PAGE IN ARIS PROCESS MINING

1. Open ARIS Process Mining.
2. Click the ⁝⁝⁝ **Navigation menu** icon > **Administration** in the program header.
3. Click **ARIS integration** in the **Administration** panel.

The **ARIS integration** page opens.




### CONNECT ARIS PROCESS MINING TO ARIS AND ENABLE THE LINK TO ARIS

Specify the ARIS project room that you want to connect to and enable the link to ARIS that allows you to jump from ARIS Process Mining to ARIS.

1. Enable the **Enable ARIS integration** option.
2. Under **Configure your ARIS integration**, enable **ARIS Advanced/Basic**.

   Enter the project room name you want to connect to, for example, my_ARIS_ProjectRoom.
3. Enable the **Include ARIS in the navigation menu** option.

4. Click **Apply**.

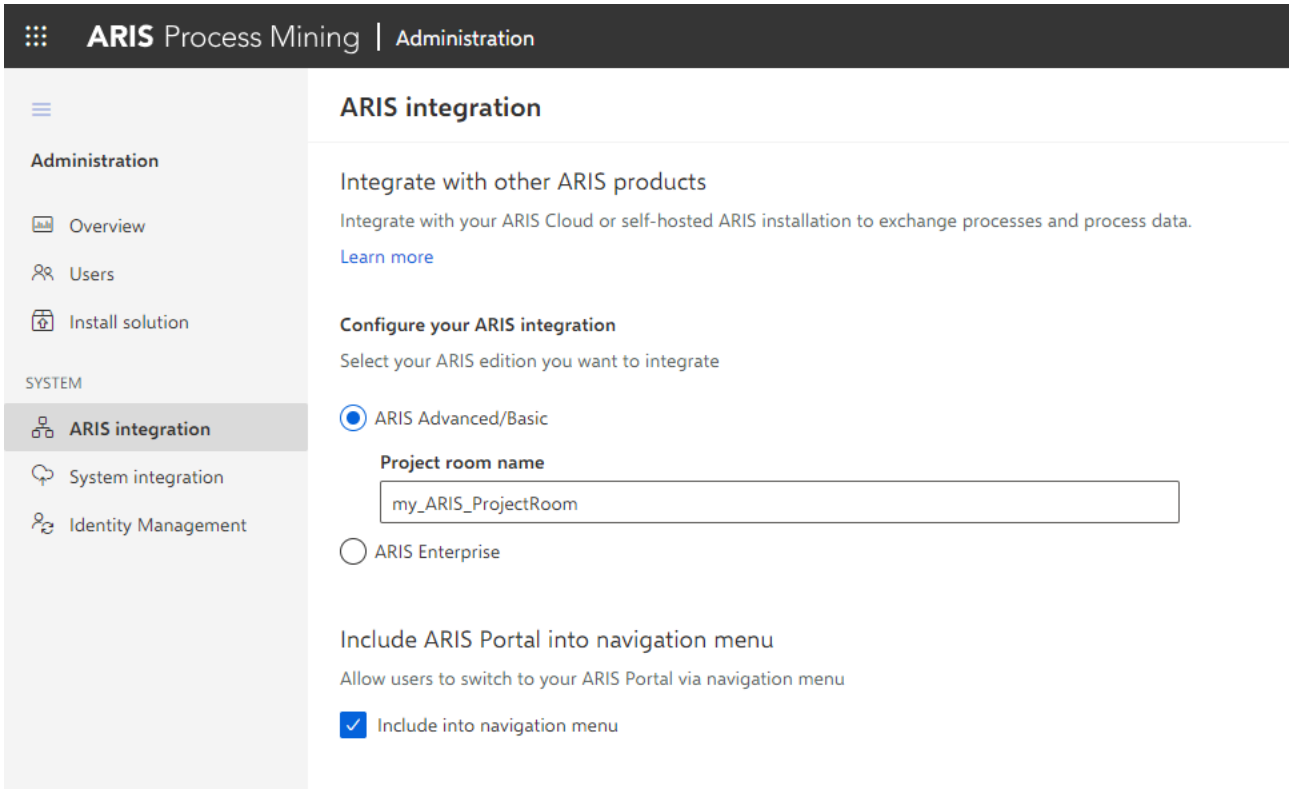
The link to ARIS is enabled.

Keep the **ARIS integration** page open.

To display the **ARIS** link in the **Navigation menu** (⁝⁝⁝), you must reload the ARIS Process Mining tab. It may take a few minutes before the link is available in the menu.

### Example

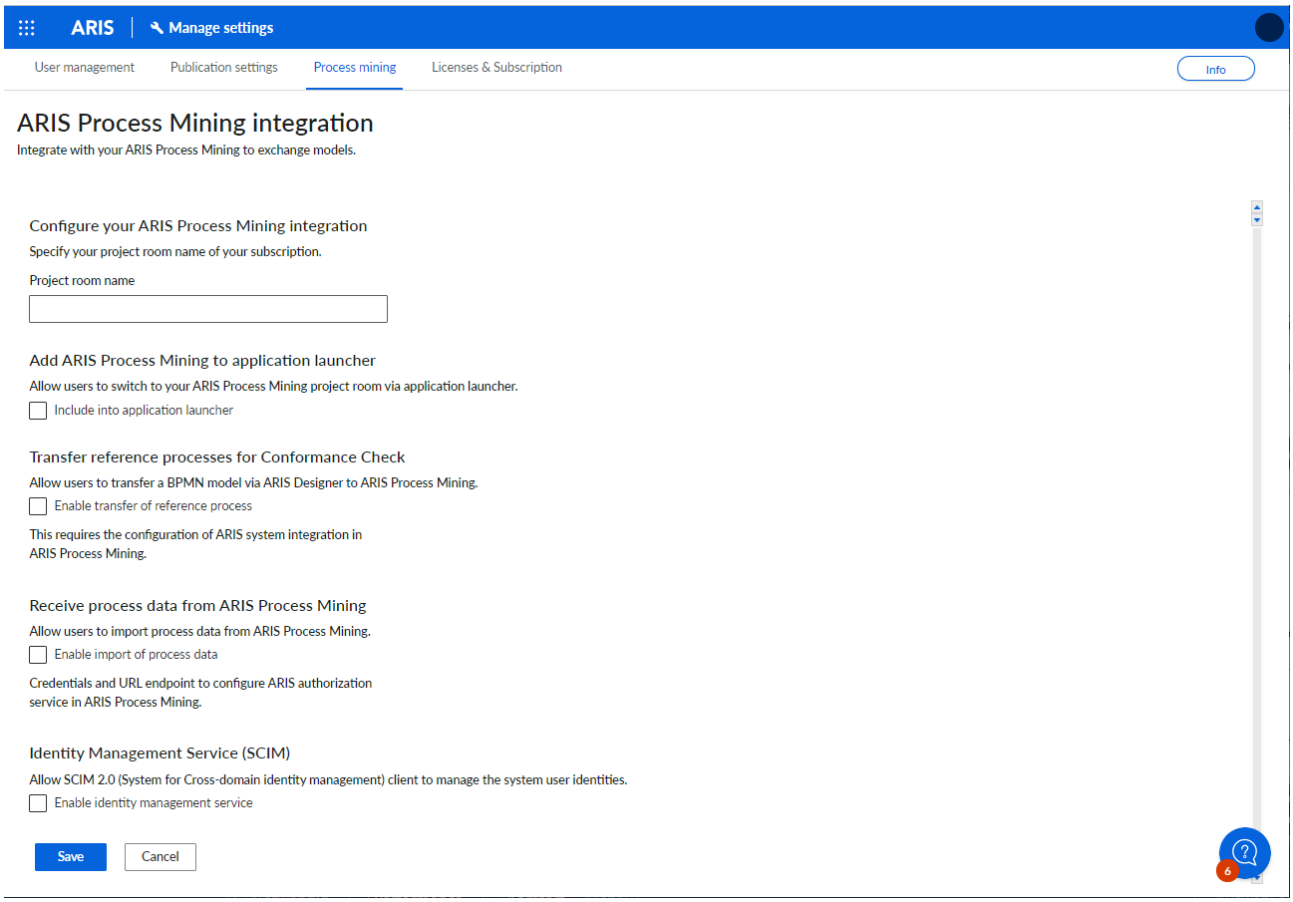
Connect ARIS Advanced or Basic and enable the **ARIS Portal** link.




## OPEN THE ARIS PROCESS MINING INTEGRATION PAGE IN ARIS

1. Open ARIS in a separate tab of your web browser.
2. Click ⁝⁝⁝ **Application launcher >** **Administration**.
3. Click **Process Mining**.

The **ARIS Process Mining integration** page opens.




## CONNECT ARIS TO ARIS PROCESS MINING AND ENABLE THE LINK TO ARIS PROCESS MINING

Specify the ARIS Process Mining project room that you want to connect to and enable the link to ARIS Process Mining that allows you to jump from ARIS to ARIS Process Mining.

1. Under **Configure your ARIS Process Mining integration**, enter the name of the ARIS Process Mining project room you want to connect to, for example, my_ProcessMining_ProjectRoom.
2. Under **Add ARIS Process Mining to application launcher**, enable the **Add to application launcher** option.

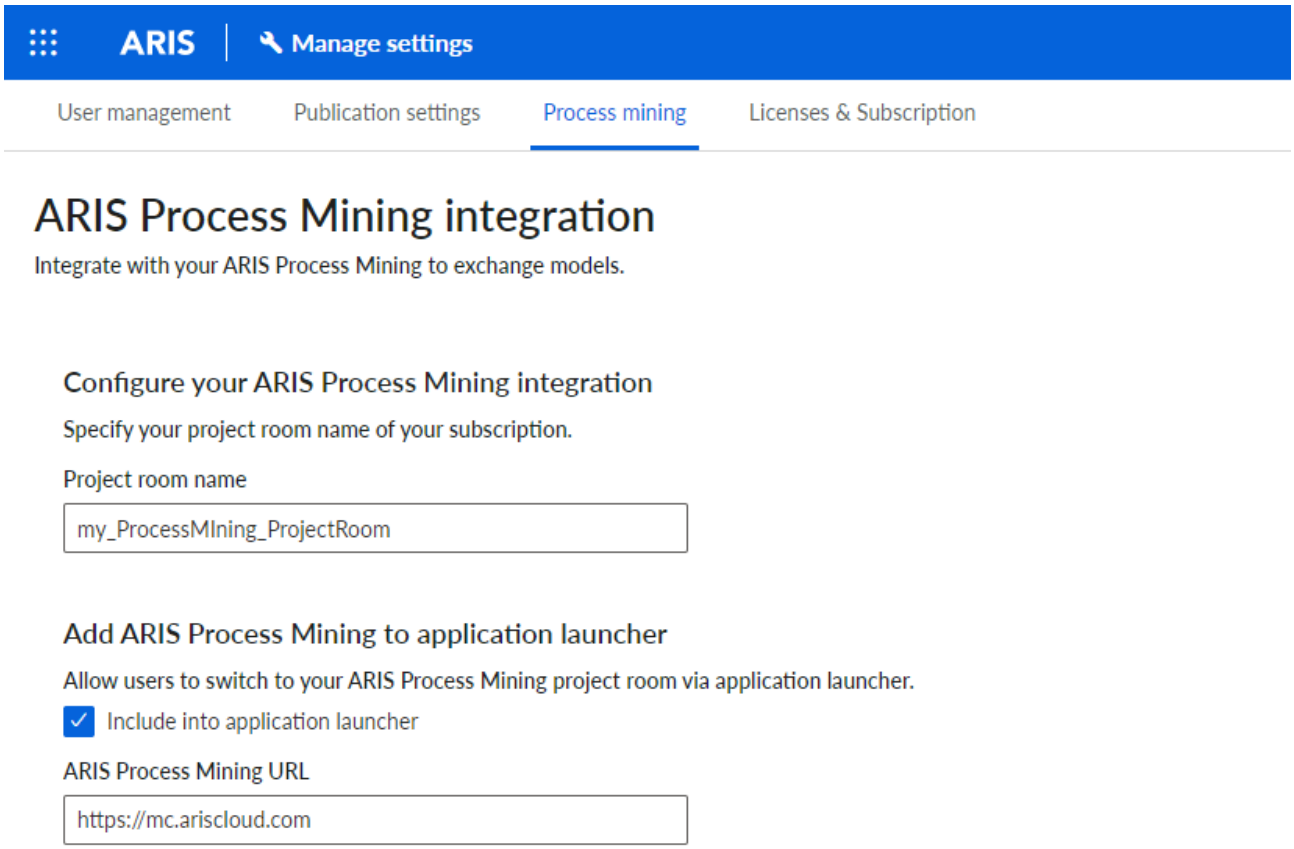
   Enter the **ARIS Process Mining URL**, for example, https://mc.ariscloud.com.
3. Click **Save**.

The link to ARIS Process Mining is enabled.

To display the link in the **Application launcher** menu, you need to reload the ARIS tab. It may take a few minutes before the link is available in the menu.

**Example**

Connect ARIS Process Mining and enable the ARIS Process Mining link in ARIS.




## ENABLE AND CONFIGURE THE VARIANT TRANSFER

You must first enable the import of process data in ARIS before you can configure the variant transfer in ARIS Process Mining.

1. Under **Receive process data from ARIS Process Mining,** enable the **Enable import of process data** option.
2. Enter the **Callback URL** for your ARIS Process Mining project room.

   https://<host name>/umc/rest/oauth/callback?tenant=<tenant ID>&provider=umc

   Replace **<host name>** with the host name of the ARIS Process Mining installation. Default host name is **processmining.ariscloud.com**. Replace <tenant ID> with the name of the ARIS Process Mining project room for which you want to enable data transfer, for example, my_ProcessMining_ProjectRoom.

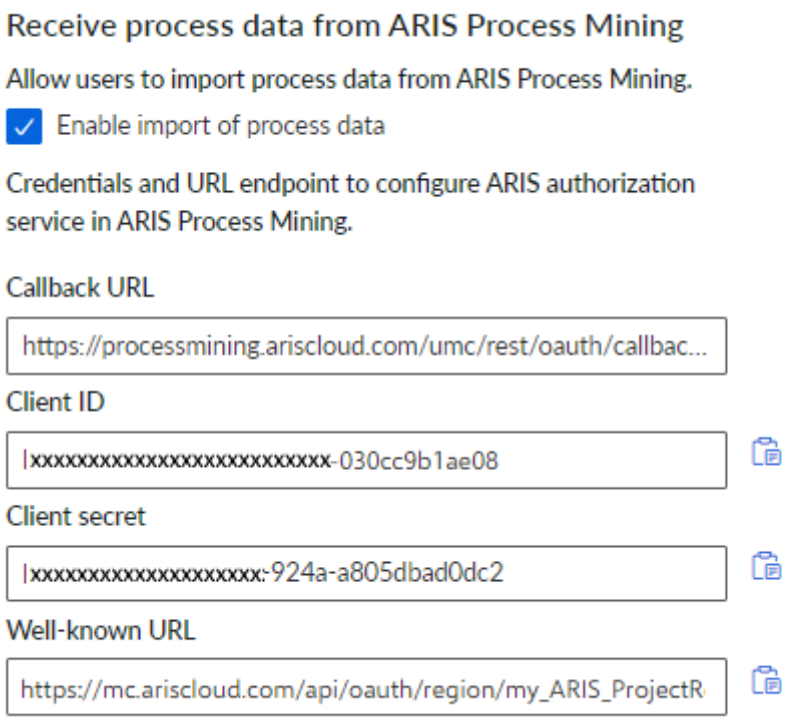
   **Example**

   https://**processmining.ariscloud.com**/umc/rest/oauth/callback?tenant=**my_Process Mining_ProjectRoom**&provider=umc

3. Click **Save**.

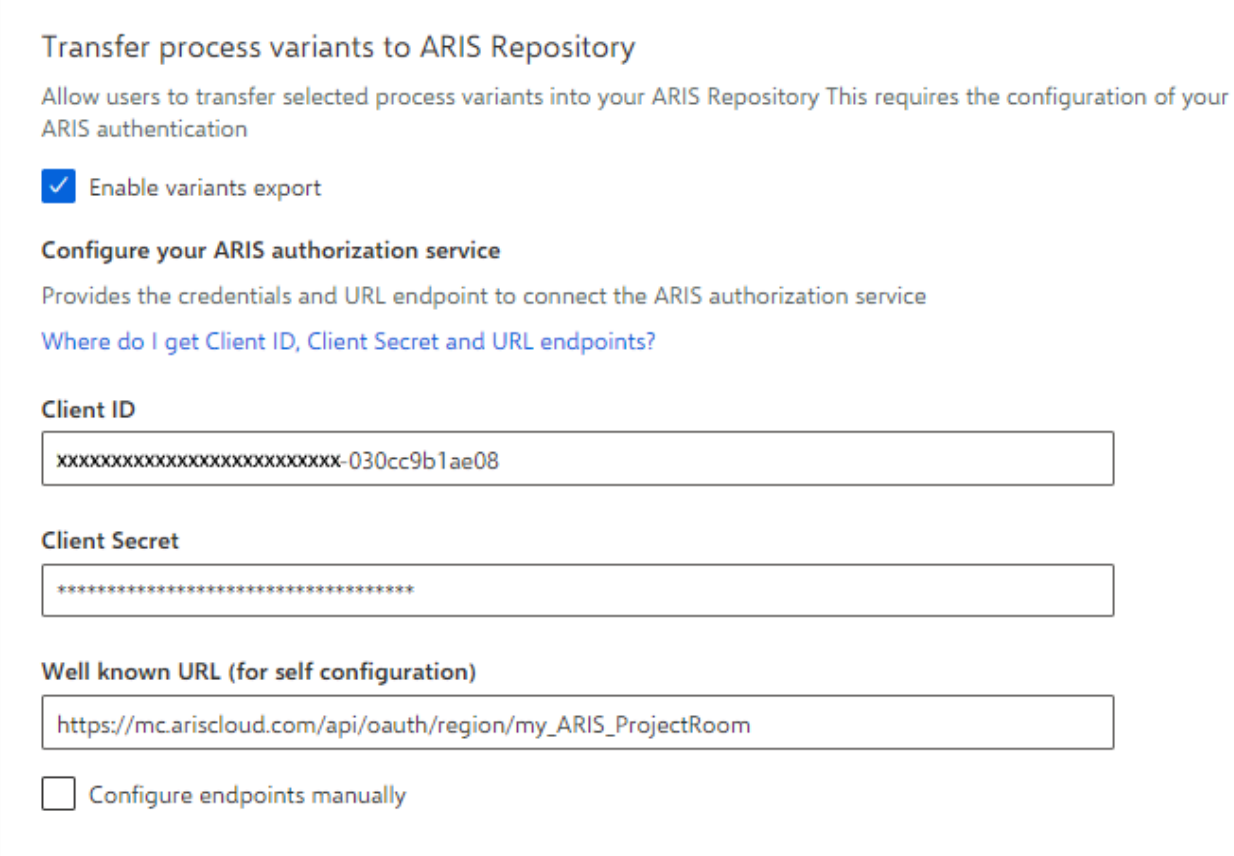
   A client ID, client secret, and well-known URL are provided. You need the access data in the next step to configure the process transfer in ARIS Process Mining. Copy the data to the clipboard and paste it into the corresponding fields on the **ARIS integration** page, as described in step 6 below.

   **Example**




4. Open the ARIS Process Mining tab with the **ARIS integration** page.
5. Under **Transfer process variants to ARIS Repository**, enable the **Enable export of variants** option.
6. Copy the client ID, client secret, and well-known URL provided on the **ARIS Process Mining integration** page and insert them in the corresponding input fields.

**Example**




7. Click **Apply**.

The variants transfer is enabled and configured.

## ENABLE AND CONFIGURE PROCESS TRANSFER FOR CONFORMANCE ANALYSIS

You must first create an ARIS system integration in ARIS Process Mining before you can configure the process transfer in ARIS.

**Prerequisite**

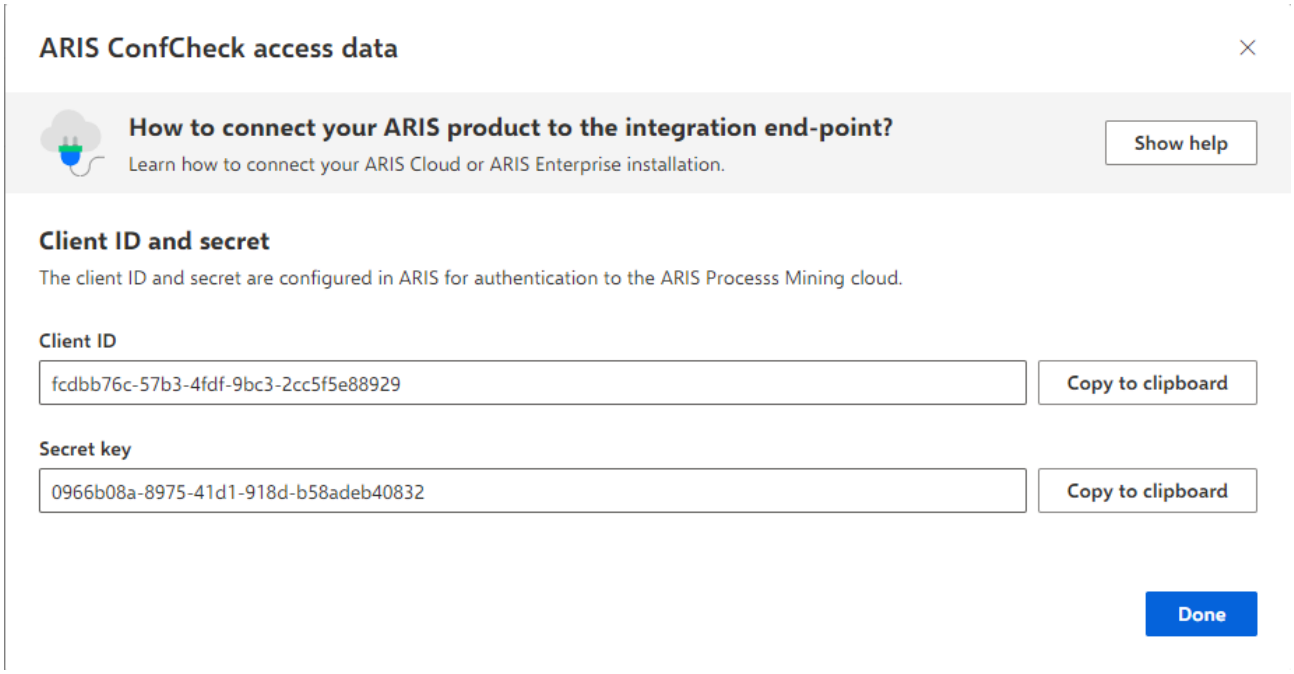
The link to ARIS Process Mining must be enabled, as shown above.

1. Click **Create ARIS system integration** at the bottom of the **ARIS integration** page. The corresponding dialog opens.
2. Enter a name, for example, ARIS ConfCheck, and an optional description.
3. Ensure that **Client credentials** is selected as **Grant type (OAuth)**.
4. Click **Add**. The **ARIS Connect access data** dialog opens.

   The dialog provides the client ID and secret. Keep the dialog open. You need the access data in the next step to configure the process transfer in ARIS. Copy the data to the clipboard and paste it into the corresponding fields on the **ARIS Process Mining integration** page, as described in step 8 below.

**Example**

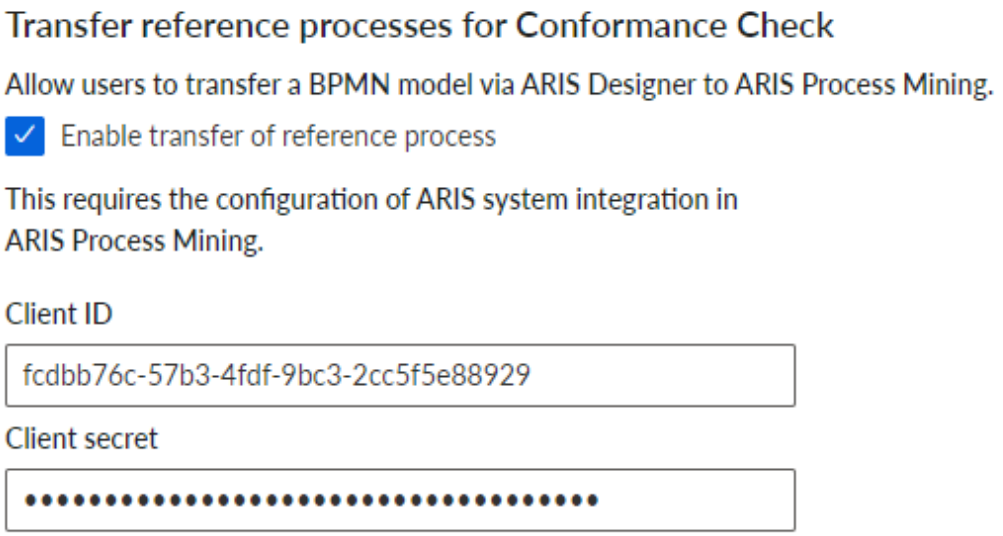
Access data of the ARIS system integration.




When you click **Done**, the dialog closes and the ARIS system integration is created and listed in the **System integration** component with the name you specified. You can ignore the status of the system integration displayed in the list.

5. Open the ARIS tab with the **ARIS Process Mining integration** page.
6. Ensure that the link to ARIS Process Mining is enabled, as shown above.
7. Under **Transfer reference process for Conformance Check**, enable the **Enable transfer of reference process** option.

8. Copy the client ID and secret provided from the **ARIS system integration** you created in ARIS Process Mining, as described in step 4. Insert the data in the corresponding input fields.

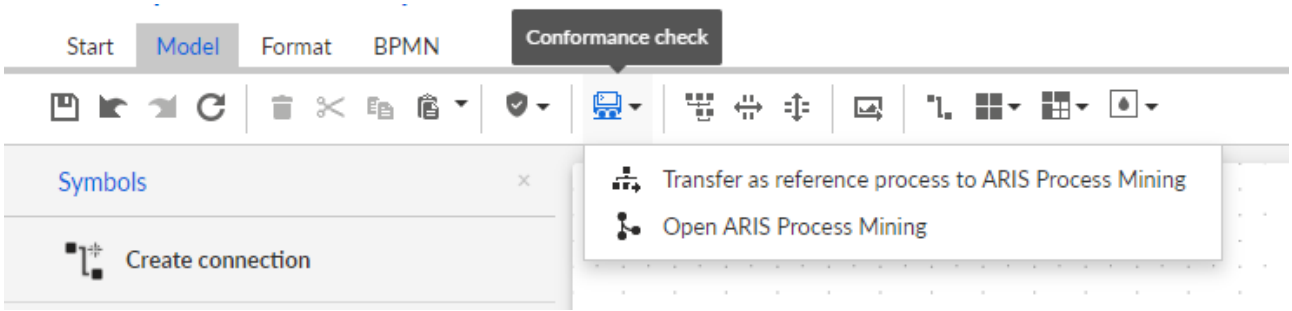



Click **Save**.

The process transfer for conformance analysis is enabled and configured.

You can now transfer BPMN models from ARIS to ARIS Process Mining. This feature enables you to perform a conformance check using ARIS Process Mining.

The **Transfer as reference process to ARIS Process Mining** button is available in the ARIS Model designer. Open a BPMN model, open the **Model** tab, click the **Conformance check** button -> **Transfer as reference process to ARIS Process Mining**.



## 4.2 Integration of ARIS Enterprise

### 4.2.1 Prerequisites

#### PREREQUISITES FOR ARIS PROCESS MINING

You have the **User admin** function privilege.

You have the **Data admin** function privilege.

#### PREREQUISITES FOR ARIS

You have the **User administrator** function privilege.

You have the **Technical configuration administrator** function privilege.

**NOTE**

To be able to use the variants transfer from ARIS Process Mining to ARIS, a user account with the same name and the email address as user name must be available in ARIS Process Mining and ARIS.

### 4.2.2 Configure the integration

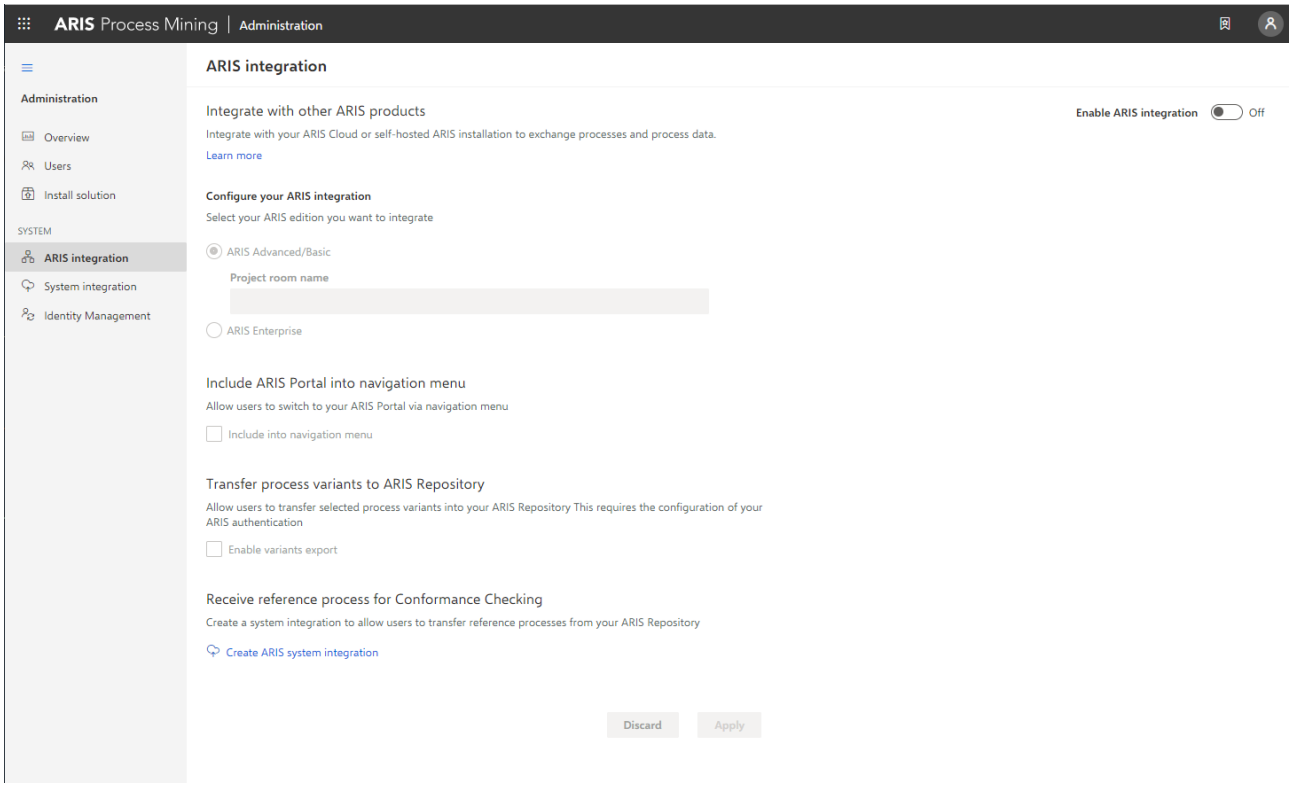
To configure the integration of ARIS Process Mining and ARIS, open both applications in parallel in separate web browser tabs. For some settings, you must copy data from one application to the other.

**Procedure**

#### OPEN THE ARIS INTEGRATION PAGE IN ARIS PROCESS MINING

1. Open ARIS Process Mining.
2. Click the ⁝⁝⁝ **Navigation menu** icon > **Administration** in the program header.
3. Click **ARIS integration** in the **Administration** panel.

The **ARIS integration** page opens.




## CONNECT ARIS PROCESS MINING TO ARIS AND ENABLE THE LINK TO ARIS

Specify the ARIS project room that you want to connect to and enable the link to ARIS that allows you to jump from ARIS Process Mining to ARIS.

1. Enable the **Enable ARIS integration** option.
2. Under **Configure your ARIS integration**, enable **ARIS Enterprise**.

   Specify the URL of your ARIS Enterprise edition including the project room to which you want to connect. You can copy the URL from the browser address bar. Specify the URL in the following form.

   https://<host name>/#<ARIS project room name>

   **Example**

   https://mycompany.ariscloud.com/#my_ARIS_ProjectRoom
3. Enable the **Include ARIS in the navigation menu** option.
4. Click **Apply**.

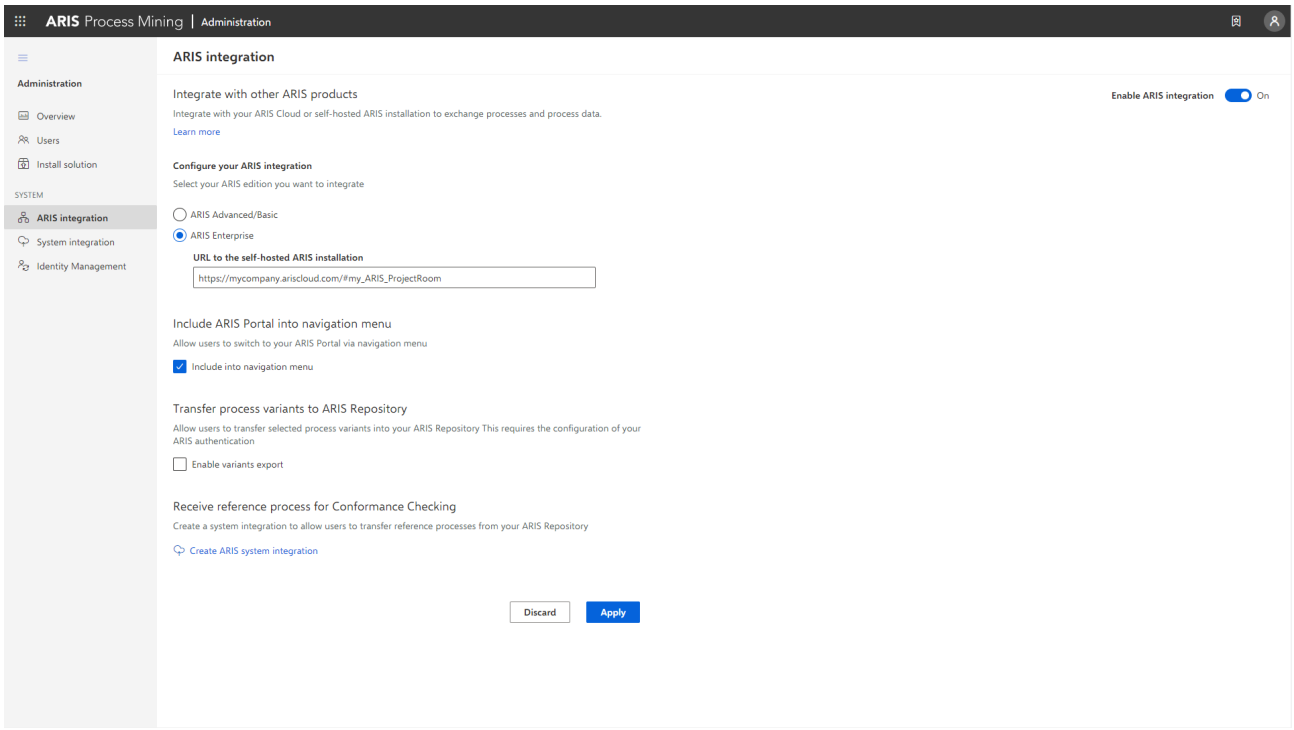
The link to ARIS is enabled.

Keep the **ARIS integration** page open.

To display the **ARIS** link in the **Navigation menu** (⁝⁝⁝), you must reload the ARIS Process Mining tab. It may take a few minutes before the link is available in the menu.

### Example

Connect ARIS Enterprise and enable the **ARIS** link.




## OPEN ARIS ADMINISTRATION

1. Open ARIS in a separate tab of your web browser.
2. Click **Application launcher > Administration**.
3. Click **Configuration > Published content > Publish databases**.

ARIS Administration opens.

## CONNECT ARIS TO ARIS PROCESS MINING AND ENABLE THE LINK TO ARIS PROCESS MINING

Specify the ARIS Process Mining project room that you want to connect to and enable the link to ARIS Process Mining that allows you to jump from ARIS to ARIS Process Mining.

1. Click **Configuration** > **User management**.
2. Click the arrow next to **Application switcher**.
3. Click **General**.
4. Click **Edit**.
5. Enable the **Enable connection to ARIS Process Mining** option.
6. Enter the **ARIS Process Mining URL**, for example, https://mc.ariscloud.com.

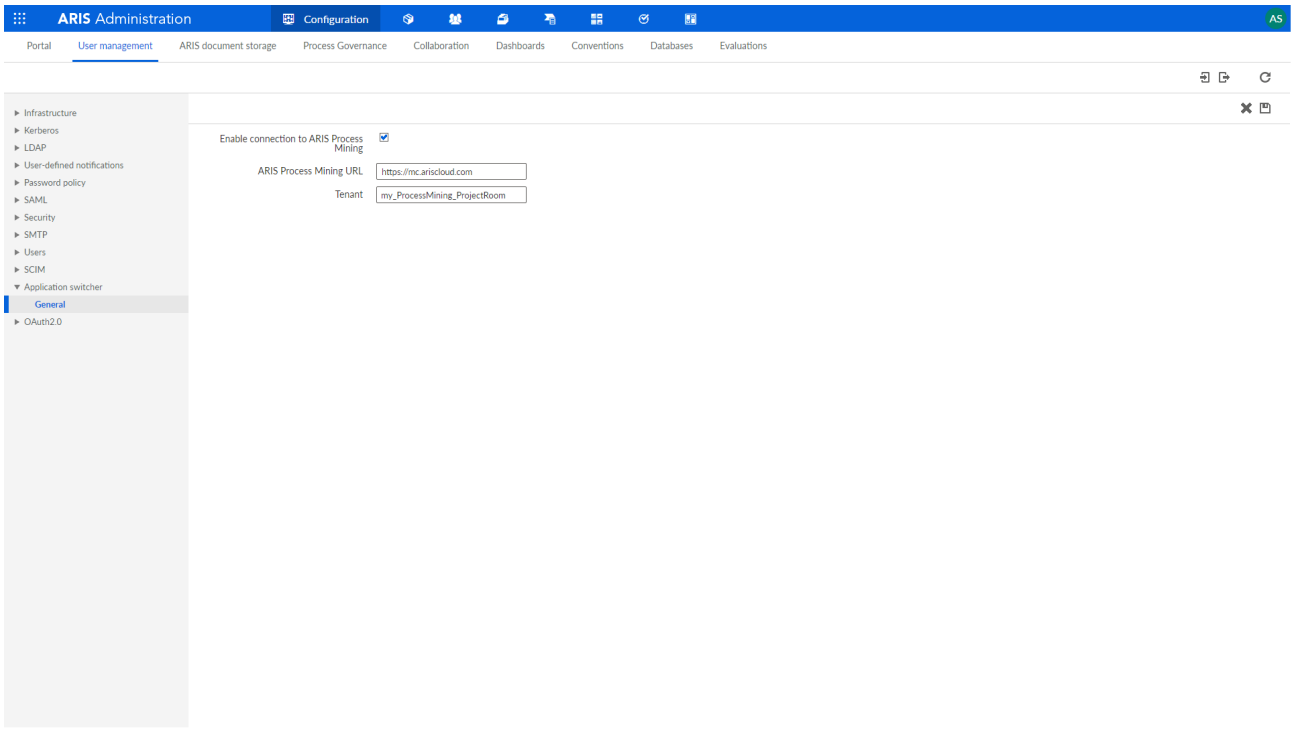
7. In the **Tenant** input box, enter the name of the ARIS Process Mining project room you want to connect to, for example, my_ProcessMining_ProjectRoom.
8. Click **Save**.

The link to ARIS Process Mining is enabled.

To display the link in the **Application launcher** (⁝⁝⁝), you must reload the ARIS tab. It may take a few minutes before the link is available in the menu.

### Example

Connect ARIS Process Mining and enable the ARIS Process Mining link in ARIS.




## ENABLE AND CONFIGURE THE VARIANT TRANSFER

You must first create a connection in ARIS before you can configure the variant transfer in ARIS Process Mining.

1. Click **Applications**.
2. Click **Add application**.
3. Enter a name, for example, Connection to ARIS Process Mining.
4. Enter an optional description.
5. Select **Authorization code** in the **Grant type** drop-down menu.
6. Enter **UserProfile** in the **Scopes** input field.
7. Enter the **Redirect URL** for your ARIS Process Mining project room.

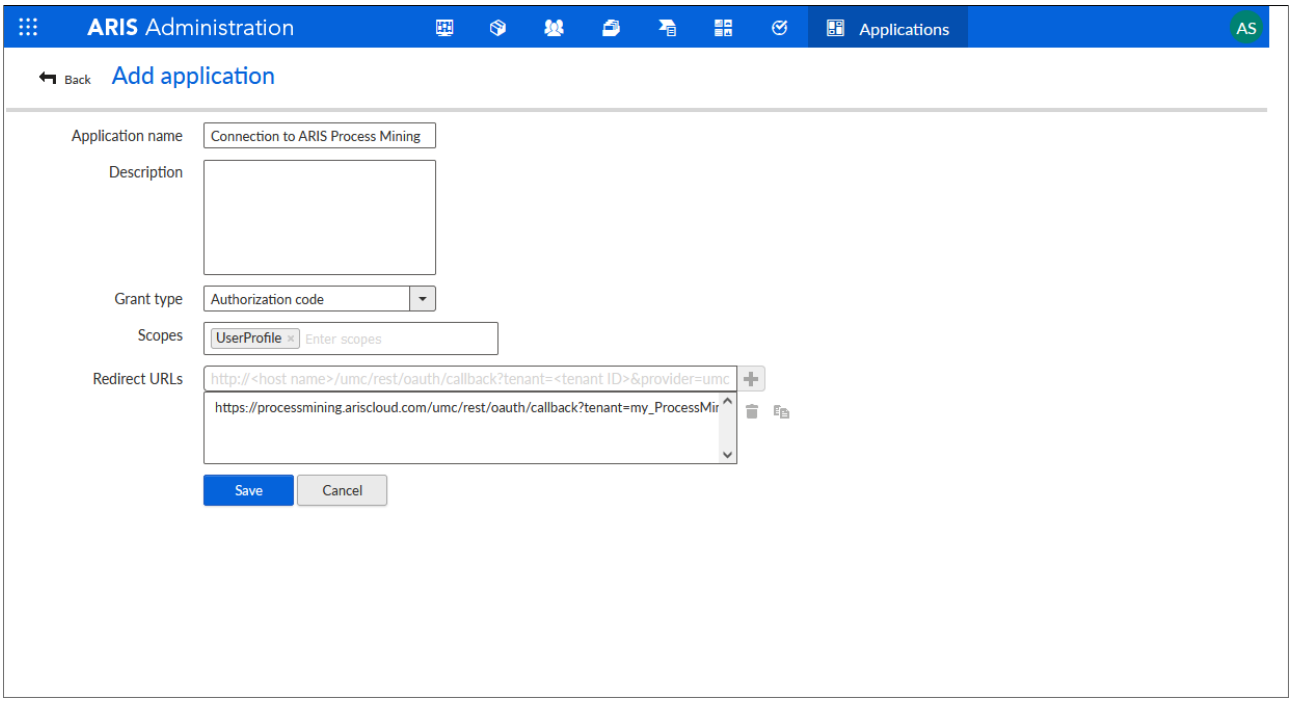
https://<host name>/umc/rest/oauth/callback?tenant=<tenant ID>&provider=umc

Replace **<host name>** with the host name of the ARIS Process Mining URL. The default host name is **processmining.ariscloud.com**. Replace **<tenant ID>** with the name of the ARIS Process Mining project room to which you want to connect.

**Example**

https://**processmining.ariscloud.com**/umc/rest/oauth/callback?tenant=**my_Process Mining_ProjectRoom**&provider=umc

8. Click **+ Add**.



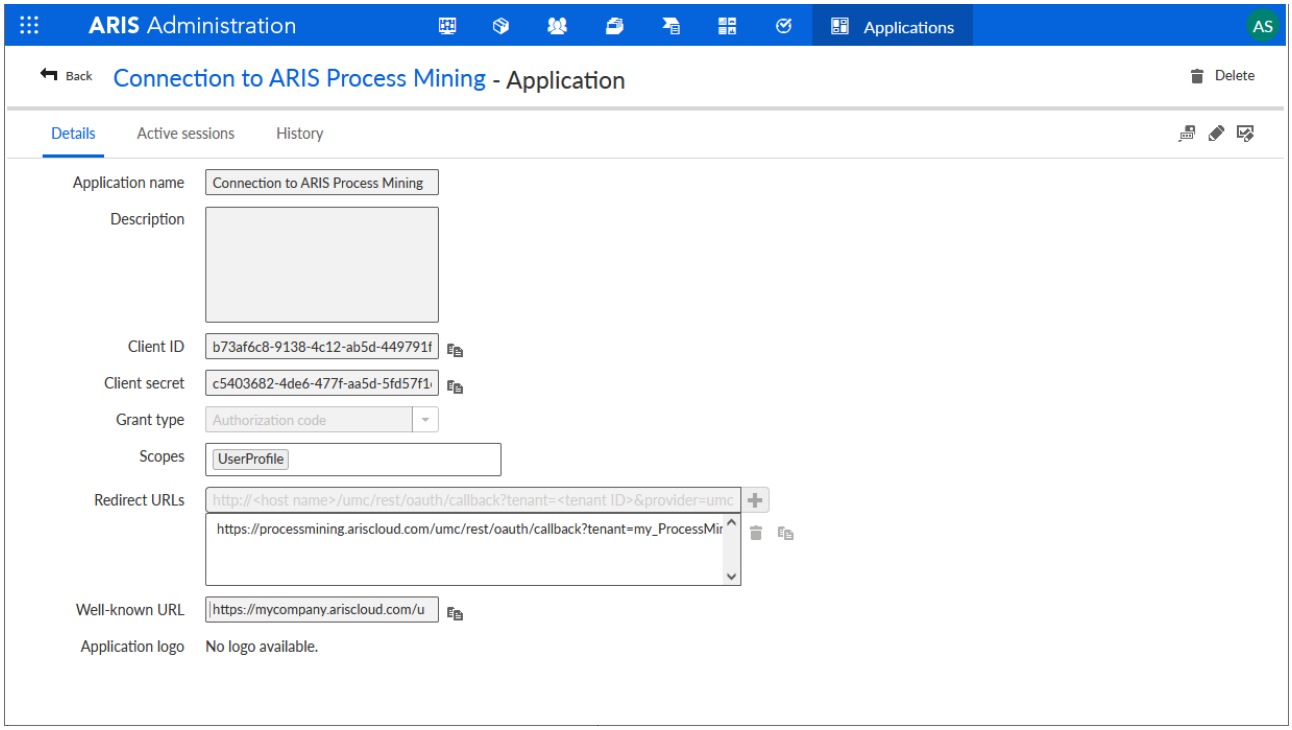

9. Click **Save**.

You have created a connection to ARIS Process Mining.

The created application provides a client ID, client secret, and well-known URL. You need the access data to configure the variant transfer in ARIS Process Mining. Copy the data to the clipboard and insert it into the corresponding fields in ARIS Process Mining.

### Example

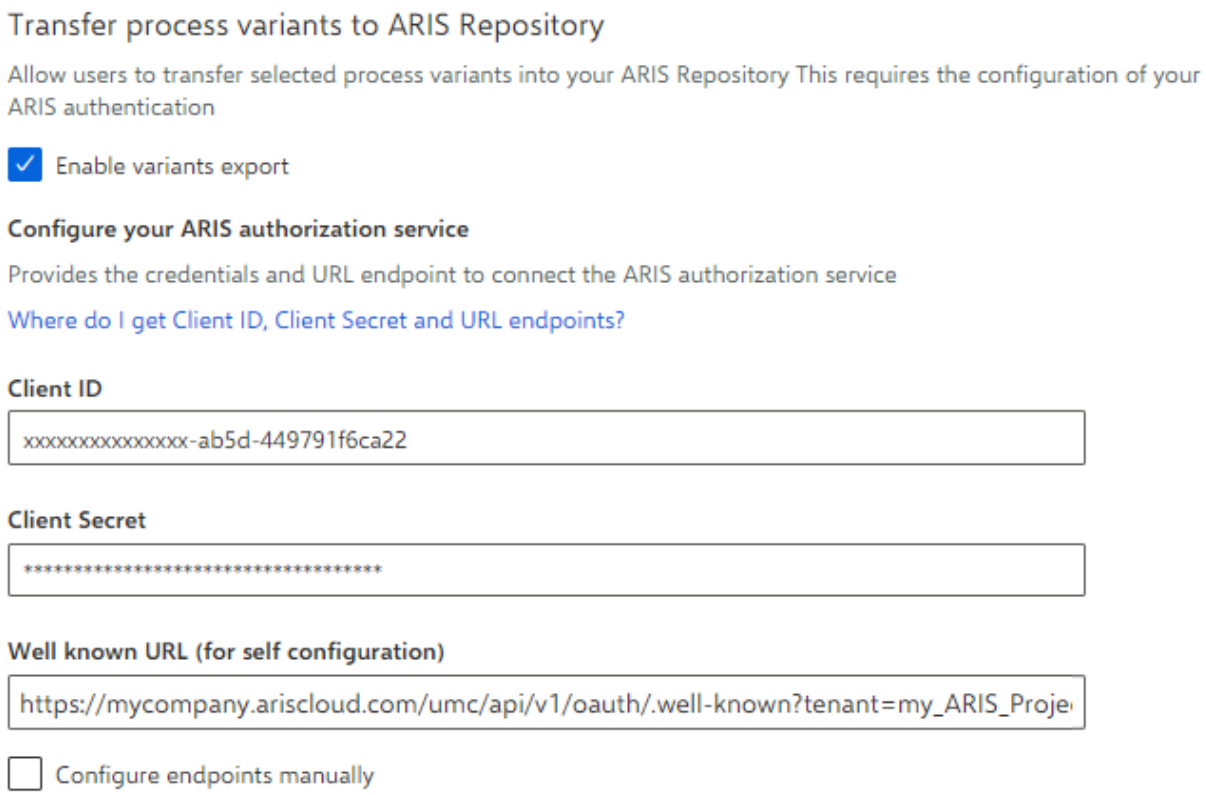
Access data provided by the application.




## CONFIGURE VARIANT TRANSFER IN ARIS PROCESS MINING

1. Open the ARIS Process Mining tab with the **ARIS integration** page.
2. Under **Transfer process variants to ARIS Repository**, enable the **Enable export of variants** option.
3. Copy the client ID, client secret, and well-known URL provided by the **application** created in ARIS and insert them in the corresponding input fields.

**Example**




4. Click **Apply**.

The variant transfer is enabled and configured.

## ENABLE AND CONFIGURE REFERENCE PROCESS TRANSFER FOR CONFORMANCE ANALYSIS

You must first create an ARIS system integration in ARIS Process Mining before you can configure the required connection in ARIS.

**Prerequisite**

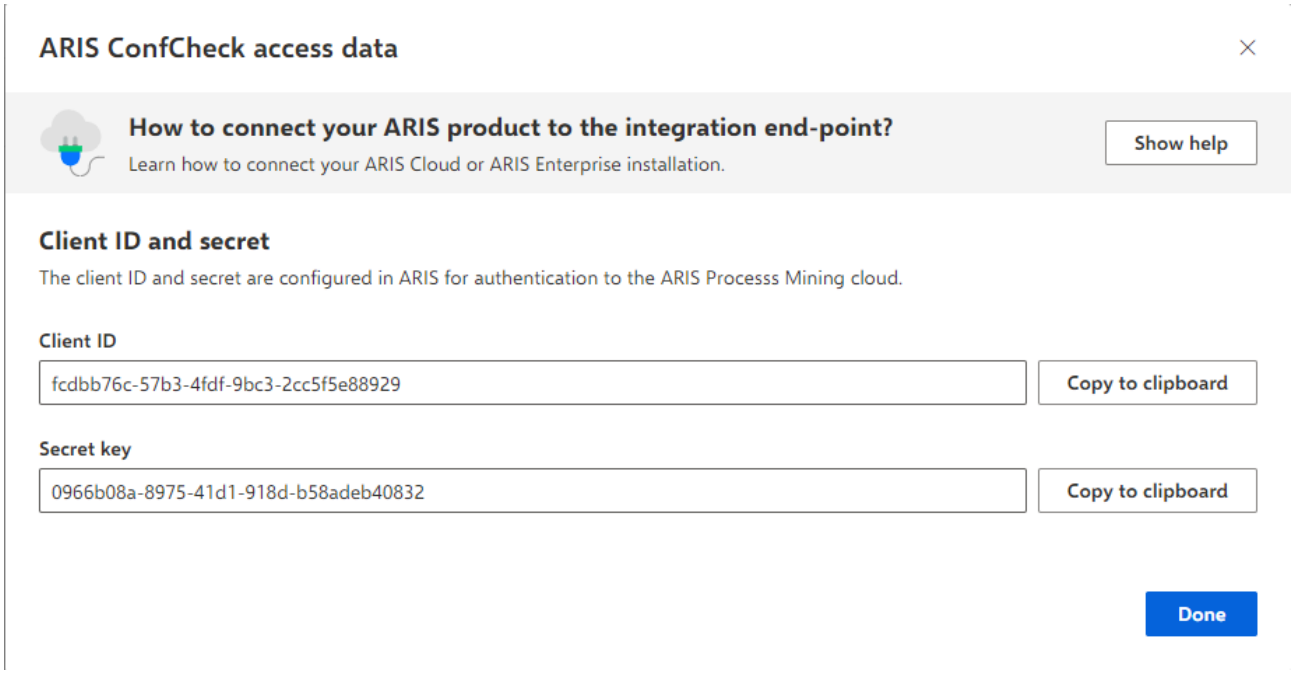
The link to ARIS Process Mining must be enabled, as shown above.

1. Click **Create ARIS system integration** at the bottom of the **ARIS integration** page. The corresponding dialog opens.
2. Enter a name, for example, ARIS ConfCheck, and an optional description.
3. Ensure that **Client credentials** is selected as **Grant type (OAuth)**.
4. Click **Add**. The **ARIS Connect access data** dialog opens.

The dialog provides the client ID and secret. You need the access data in the next step to configure the process transfer in ARIS. Copy the data to the clipboard and insert it into the corresponding fields on the **ARIS Process Mining integration** page, as shown in step 8 below.

**Example**

Access data of the ARIS system integration.




When you click **Done**, the dialog closes and the ARIS system integration is created and listed in the **System integration** component with the name you specified. You can ignore the status of the system integration displayed in the list.

5. Open the ARIS tab with the ARIS Administration.
6. Click **Applications**.
7. Click the **ARIS Process Mining** button. The **Details** page of the **miningserver** application opens.
8. Click the **Edit** button.
9. Specify the application settings.
   a. You can enter an optional description, for example, Process conformance check.
   b. Enter the client-credentials key in the corresponding input field.

      Copy the client ID and secret from the ARIS system integration, as shown in step 4. Connect the client ID and secret to the client-credentials key as follows:

      <client ID>/<secret key>

      **Example**

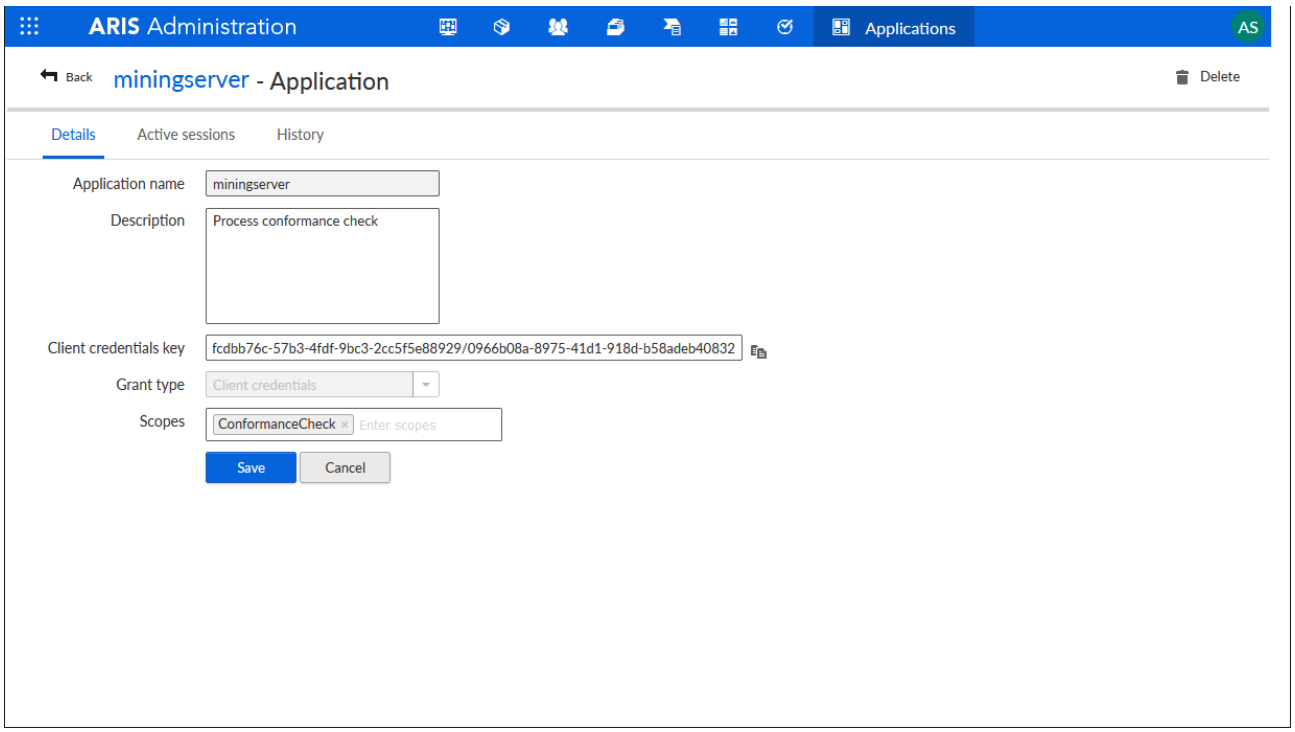
ef1bf998-9658-4433-94d6-1fe8209ab36b/81cbce47-1e67-43c3-a26c-764d85a47126

c. Specify the API scope in the **Scopes** input field. If you register ARIS Process Mining to perform a conformance check, add the **ConformanceCheck** API scope.

d. Click **Save**.

### Example

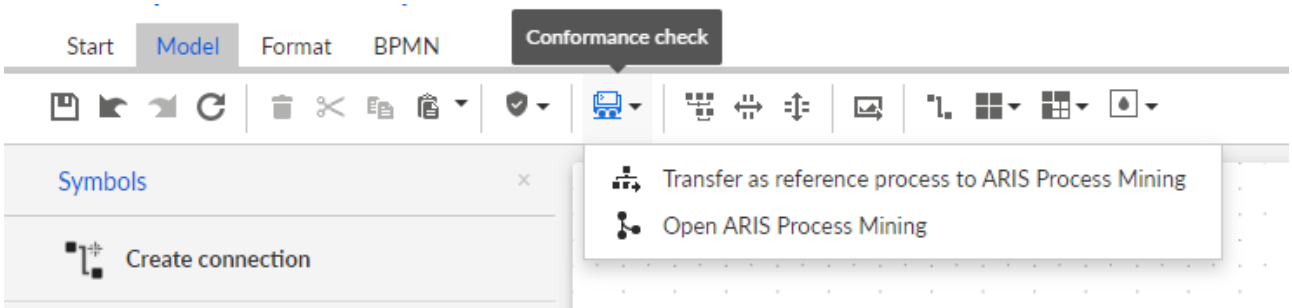
Configure the **miningserver** application.




The reference process transfer for conformance analysis is enabled and configured.

You can now transfer BPMN models from ARIS to ARIS Process Mining. This feature enables you to perform a conformance check using ARIS Process Mining.

The **Transfer as reference process to ARIS Process Mining** button is available in the ARIS Model designer. Open a BPMN model, open the **Model** tab, click the **Conformance check** button -> **Transfer as reference process to ARIS Process Mining**.



# 5 Support and legal information

This section provides you with some general information regarding product support and legal aspects.

## 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 using the consulting services provided by Software GmbH, 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 GmbH sales organization. Please note that this type of manufacturer-specific or customer-specific customization is not covered by the standard Software GmbH software maintenance agreement and can be performed only on special request and agreement.

## 5.2 Support

### PRODUCT SUPPORT

We provide support for ARIS products to all customers with a valid support contract.

Contact our Global Support services at ARIS Community to raise and update support incidents (https://ariscommunity.com/support/contact) and post ideas and feature requests (https://aris.ideas.aha.io/).

## COMMUNITY

Register with ARIS Community to download products, updates and fixes, find expert information, and interact with other users.

## DOCUMENTATION

For information on how to use and activate products and for other technical support questions, visit the ARIS Documentation website (https://docs.aris.com/).

If you want to give feedback on any documentation topic, write to documentation@aris.com.