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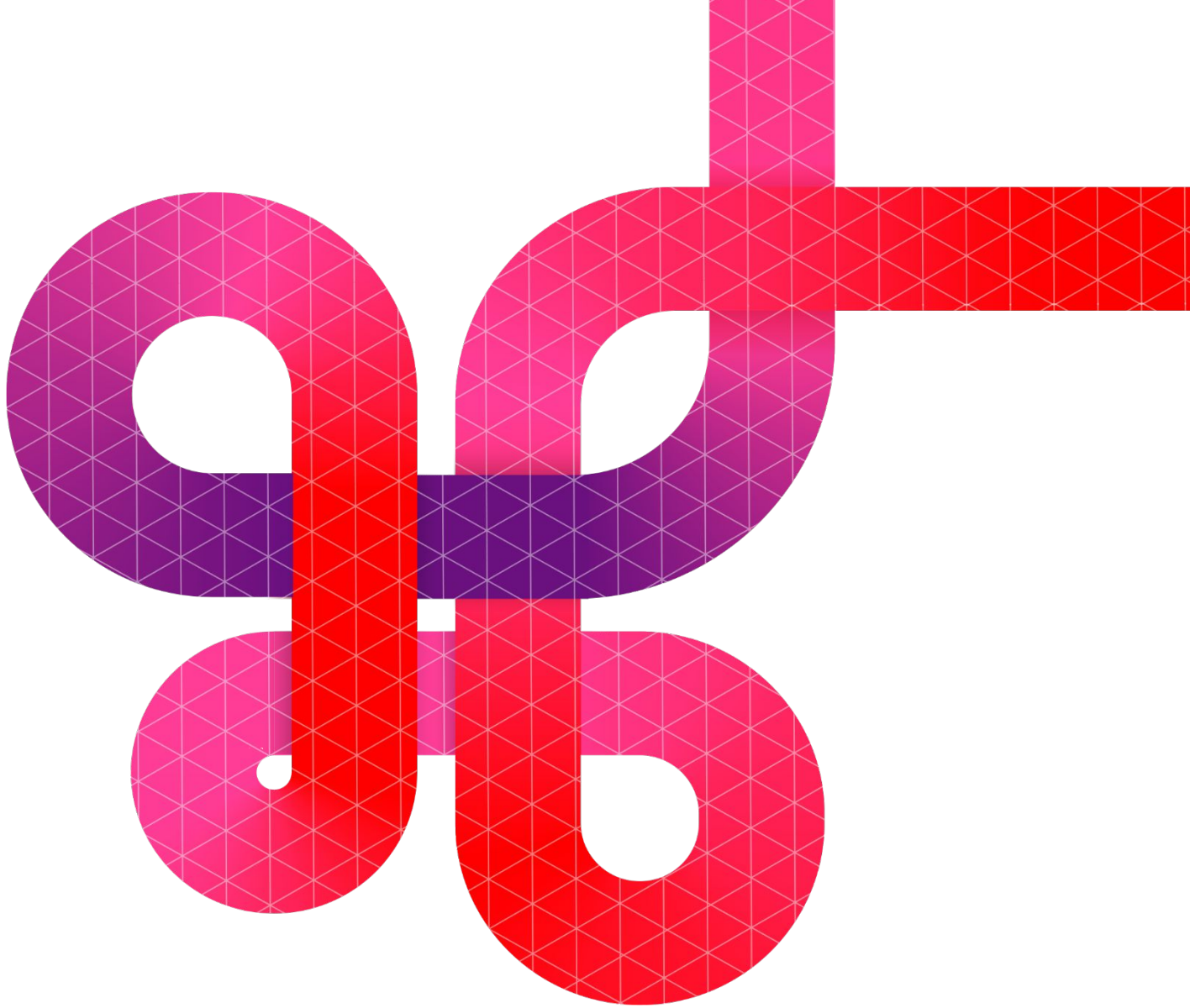
Celonis Process Mining 4.7

Release Notes



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Updating to Celonis Process Mining 4.7

Please be aware that before updating to Celonis Process Mining 4.7, it is **required to install and run version 4.6.3.x**. Otherwise, the new version compatibility verification will terminate the update procedure.

For detailed information and further required steps, please refer to the **Celonis 4.7 - Update Guide 1.11**

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Operations, stability & administration

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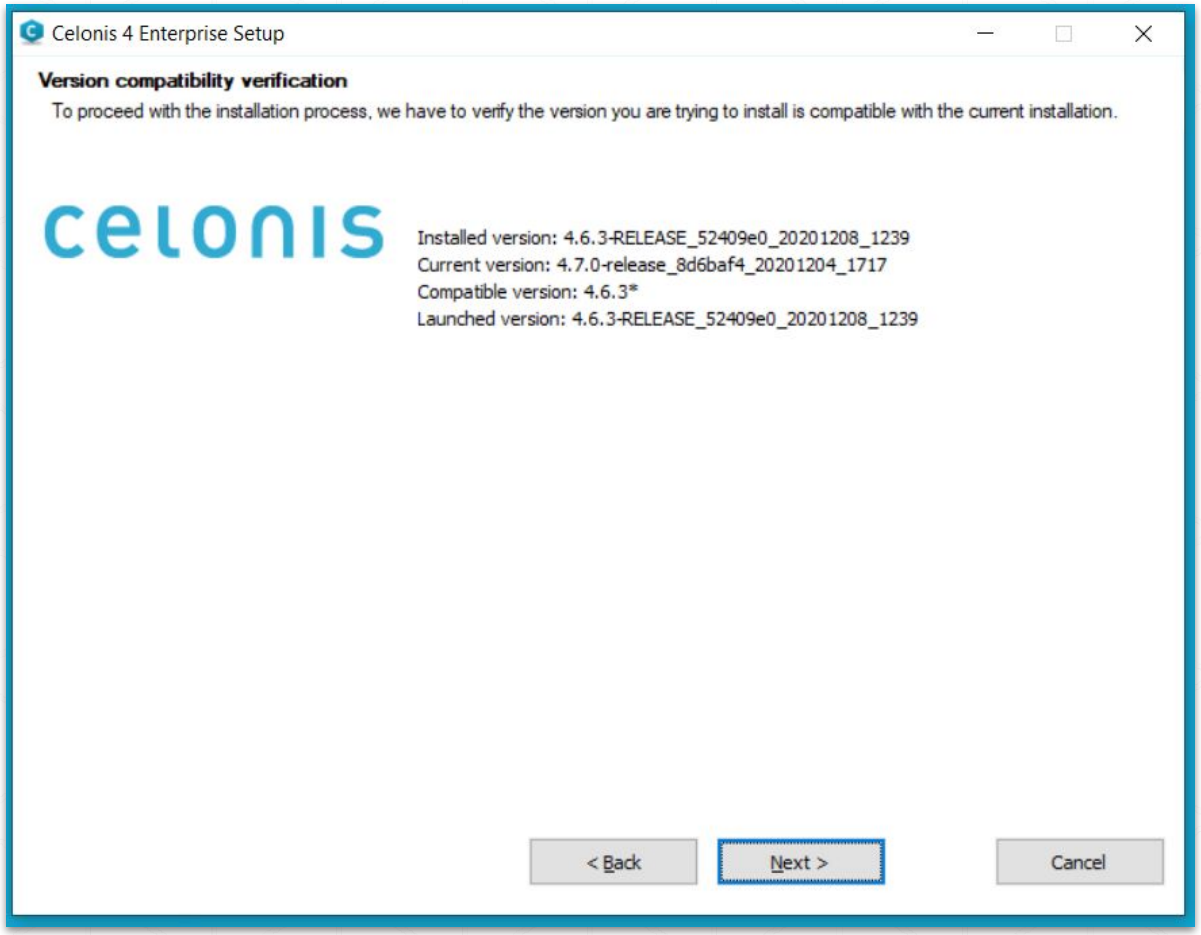
Version compatibility verification

With every major release, we introduce a variety of new features that often require database migrations and other structural changes. Therefore, a sequential upgrade path for major release versions is required to avoid issues.

With the new version CPM 4.7, we enforce a version compatibility verification during the installation process. In case the currently installed version is not compatible with the new version, the installation process will cancel.



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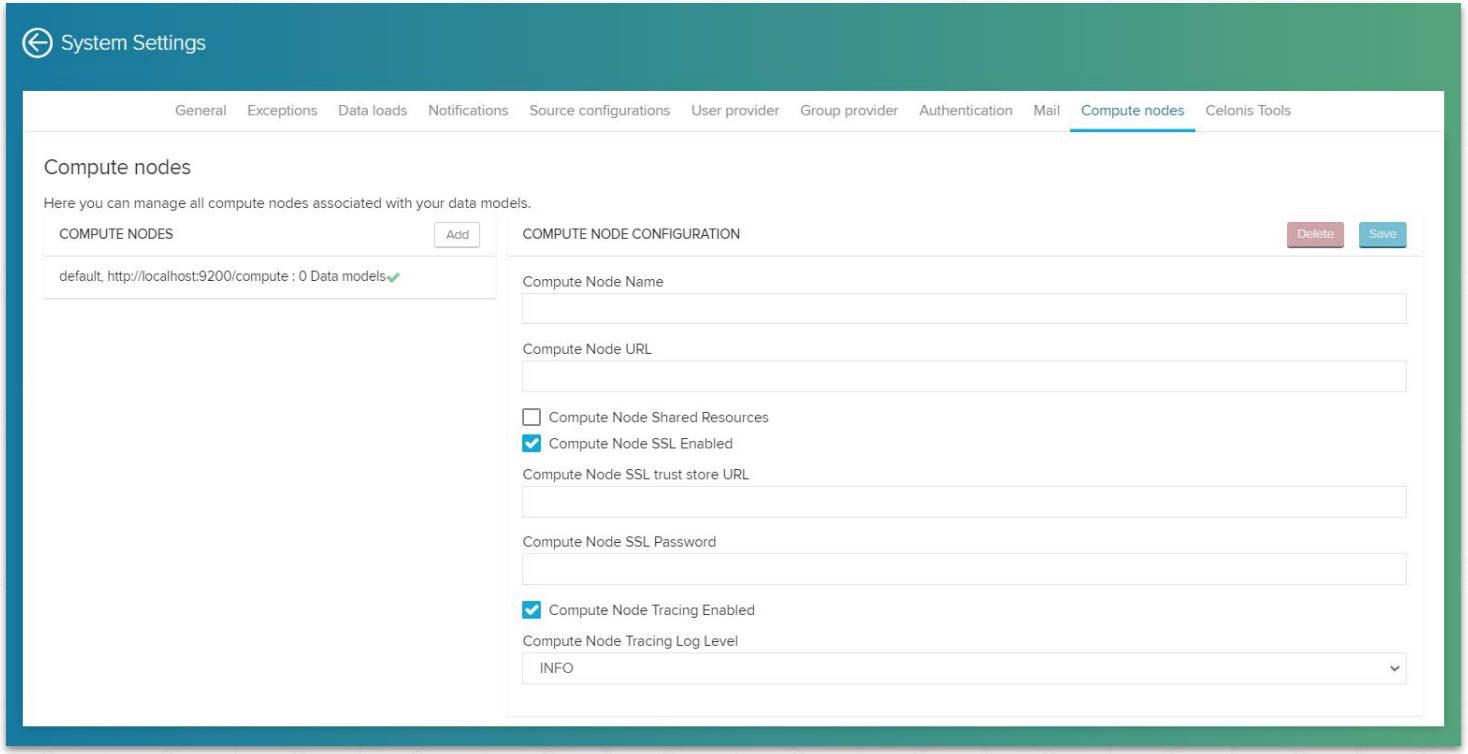
Compute Management Overview

Added frontend to manage Compute Nodes



Previously, distributed Compute Nodes were managed within the *config-custom.properties* file.

For improved usability, we created a frontend page for Compute Node configurations. Additionally, the Central Application does not have to be restarted anymore in case the configuration changes.

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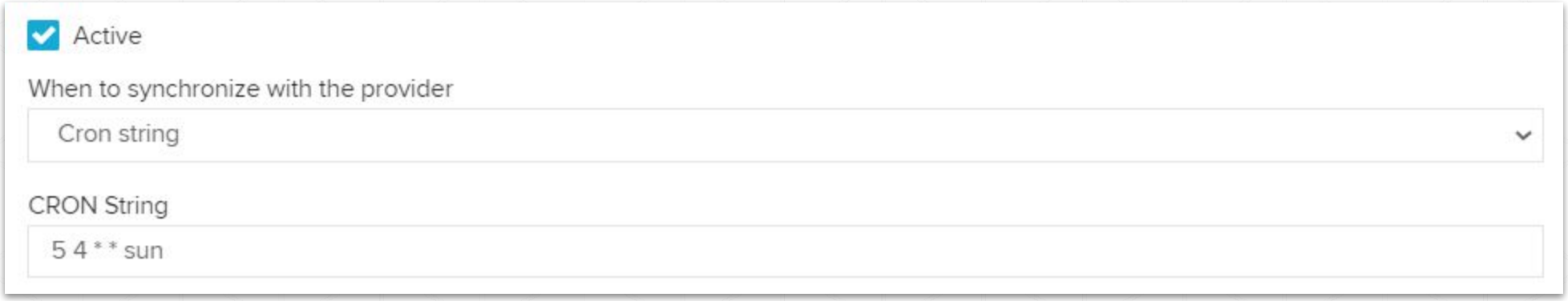
User/Group Provider scheduling

The synchronization of the User Provider and the Group Provider can now be scheduled with a CRON string. Previously it was only possible to configure a delay between synchronization attempts.



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Improved analytical capabilities

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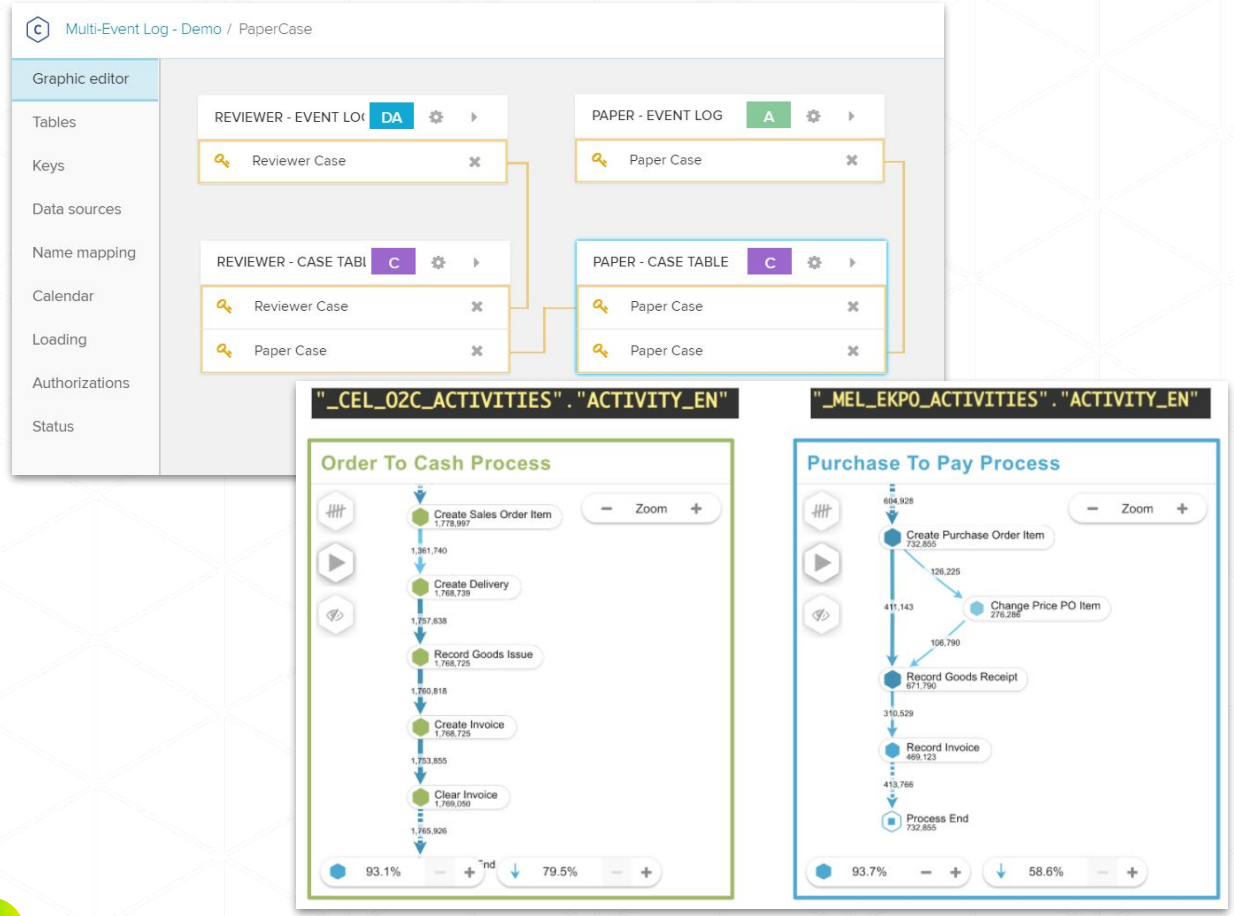
Multi-Event-Log enabled Data Models

Analyze E2E business processes



The Multi-Event Log technology provides the capability to analyze end-to-end business processes and their interdependencies within one analysis. It allows to connect directly linked processes and to bring indirectly linked processes into context.

The Multi-Event Log technology allows you to include multiple Event Logs with their respective case tables in one semantic Data Model. All Event Logs can be linked to each other as well as to master data via joins/foreign key relationships. A holistic analysis can then access all this data on top

Please find detailed information about the configuration on help.celonis.de.

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Constant Variables

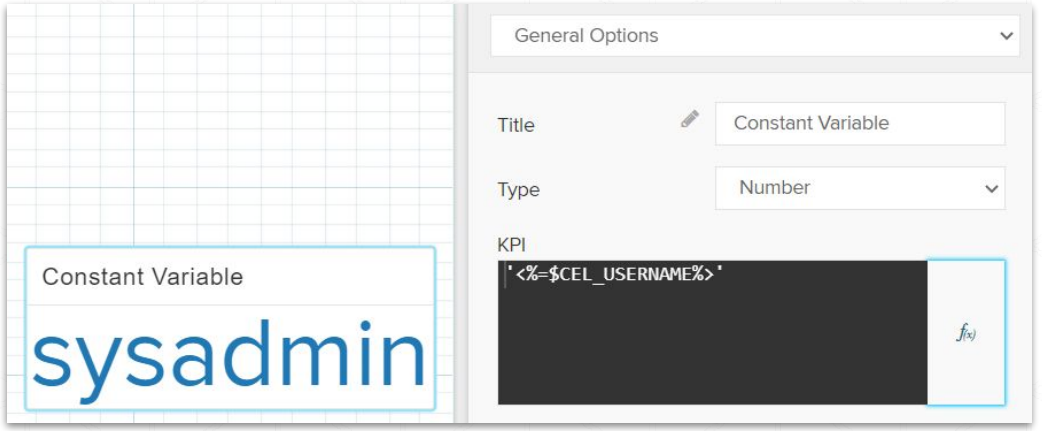
Take advantage of predefined variables

A new concept of Constant Variables was introduced in the Analysis. They are similar to regular variables but can not be defined by the user.

For the beginning the following two constants were implemented:

$CEL_ACTIVE_FILTERS - The Filters/Selections that are currently applied to the respective Analysis

$CEL_USERNAME - The name of the user currently viewing/editing the Analysis



Hint: Constants can also be forwarded to External Links, by using the new action of the Button Component.

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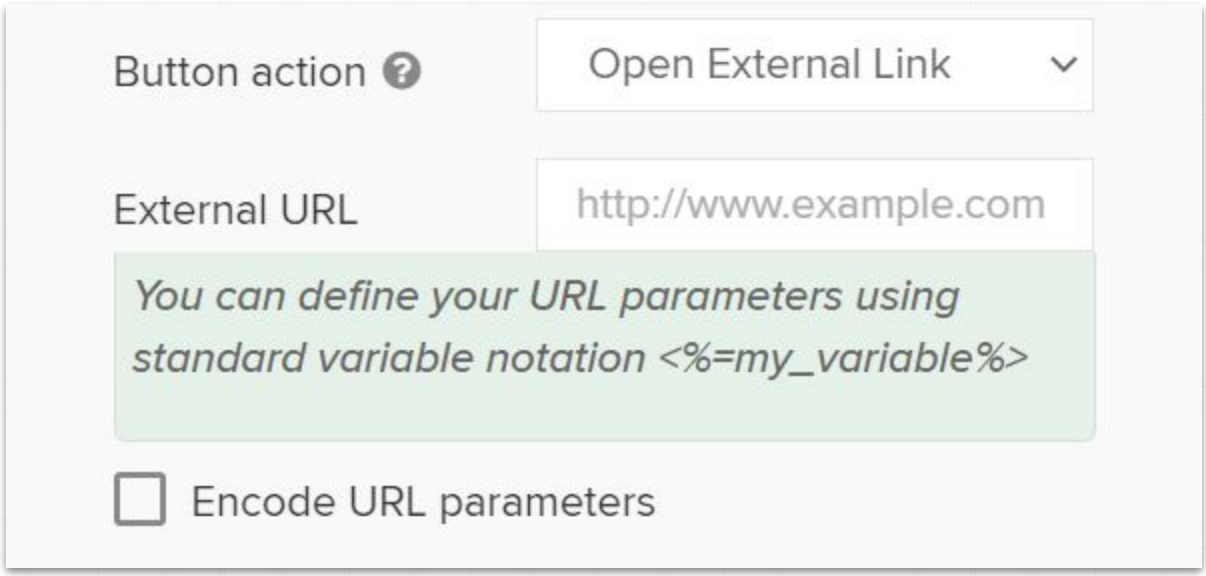
Button component – new action type

Open external links & pass filter parameters

Additionally, there is a new action for the Button Component in the Analysis: "**Open External Link**"

This action is used to open external links with the possibility to pass parameters with the variable notation. Supported parameters are Variables and Constant Variables.



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New PQL operators & functions 1/2

We added a variety of new PQL Operators to grant even more flexibility in analyzing business data:

Operator	Description
REPLACE	Replaces substrings in a column and returns the column entries with respective replacements
CLUSTER_STRINGS	Clusters strings in a column based on their similarity
LEAD & LAG	Returns the row that follows/precedes the current row by offset number of rows
PU_STRING_AGG	Returns the concatenation of strings from the given parent column
RANGE_APPEND	Creates values inside a range based on a given step size and appends them to a column
RUNNING_SUM	Returns the sum of the previous rows
TO_STRING & TO_INT	Convert INT input to STRING output and vice versa

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New PQL operators & functions 2/2

We added a variety of new PQL Operators to grant even more flexibility in analyzing business data:

Operator	Description
GREATEST & LEAST	Returns the greatest/least element that is not NULL from a set of values
TRANSIT_COLUMN	Computes transition edges between related cases from two different processes
Process index functions	Index functions functions create integer indices based on a column. The following Process Index functions are available: • INDEX_ACTIVITY_LOOP • INDEX_ACTIVITY_LOOP_REVERSE • INDEX_ACTIVITY_ORDER • INDEX_ACTIVITY_ORDER_REVERSE • INDEX_ACTIVITY_TYPE • INDEX_ACTIVITY_TYPE_REVERSE

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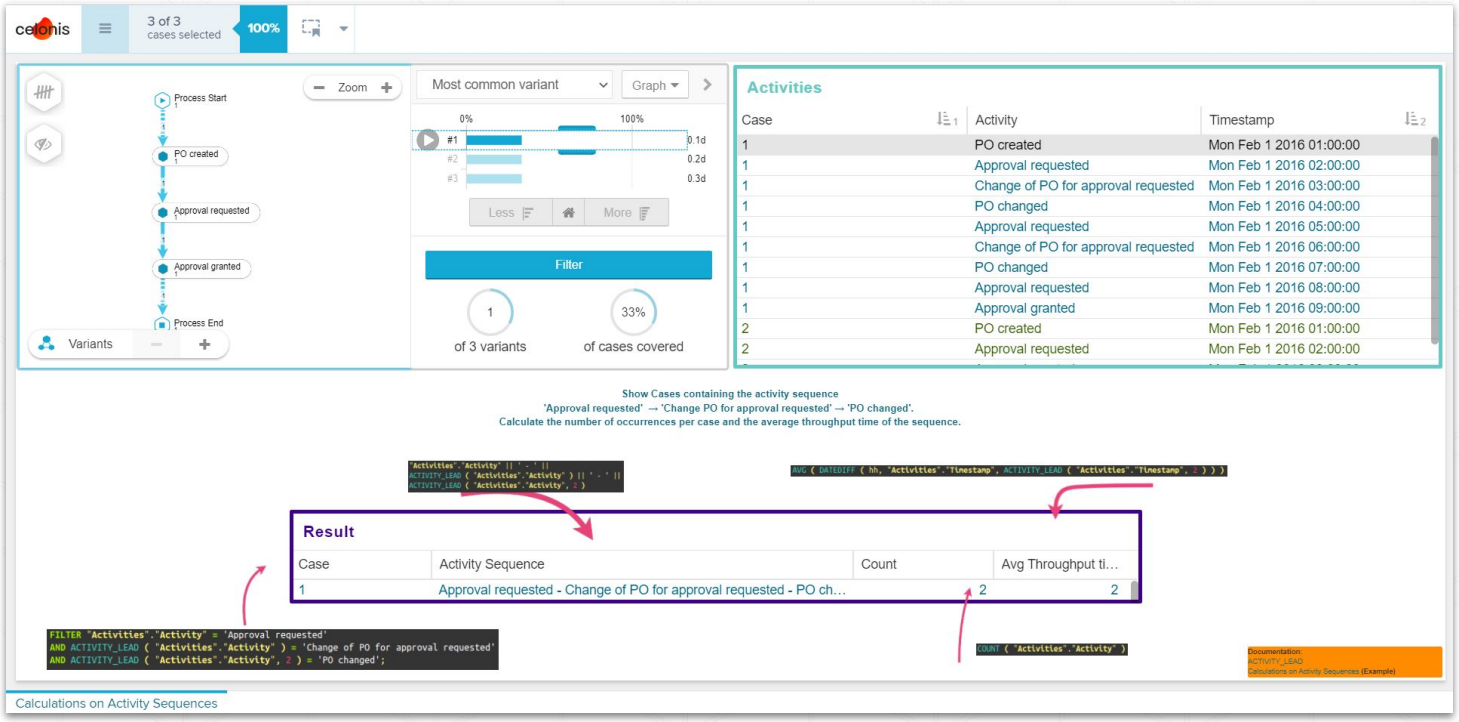
Integrated Example & Use Case Library

Discover exciting use cases & PQL examples

We extended the PQL Function Library by more Examples and Use Cases to show how through combining various operators, complex process related questions can be answered.



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PQL – calendar functions rework

- The day/time based calendars were merged into one calendar implementation, the WEEKDAY_CALENDAR. It now supports shifts of true 24 hours (previously only 23h and 59 min)
- The factory calendar expects that start date <= end date. Invalid intervals will be ignored in the calculations
- The new WORKDAY_CALENDAR (previously sometimes called SAP Factory Calendar) can handle gaps in the years of the TFACS configuration
- ADD_WORKDAYS using the workday calendars configured during data load is deprecated
- ADD_WORKDAYS (AW)/WORKDAYS_BETWEEN (WB) are given an additional (optional) argument to control the behaviour
- In the reworked implementation for AW/WB, dates outside the TFACS configuration are mapped to null
- Performance was improved for all the calendar implementations
- Intersecting arbitrary calendars is now possible with the new INTERSECT function

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Connectivity

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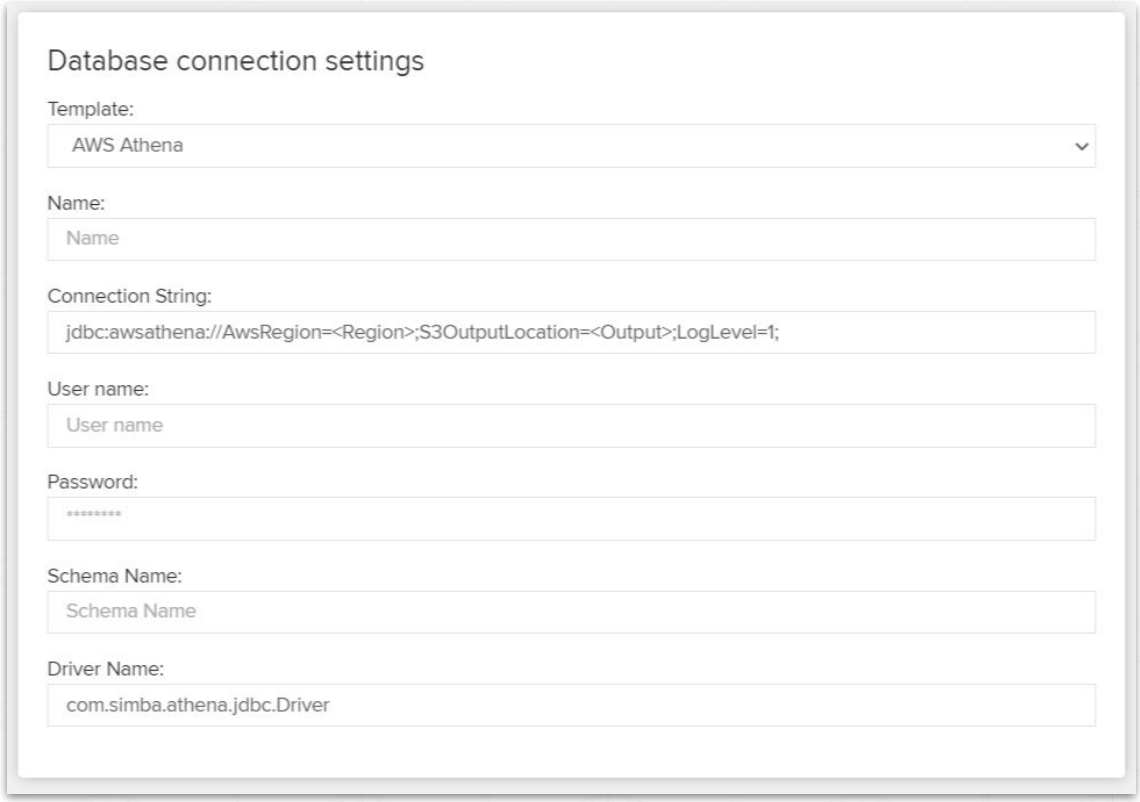
AWS Athena connection template

Custom name for group member attribute



With Celonis Process Mining 4.7, we added a Database Connection Template for Amazon AWS Athena.

Please find the full list of available database connections on help.celonis.de. More general information on how to import data into Celonis can be found there.

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Other improvements

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Other improvements

- The timestamp of the last recorded login of a given user is now visible in the respective user profile
- Users can now be locked after a certain period of inactivity (configured in the "config-custom.properties" file via instance.usersLocker.expirationDays)
- Locked users no longer count towards the license
- API Key Authentication can now be universally disabled (configured in the "config-custom.properties" file via apiKey.authentication.active)
- Error handling was improved in several areas, e.g. PDF Export, Data Model load fails
- Improved performance of the Process Explorer in certain scenarios

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Deprecated features & operators

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Deprecated features & operators

The following features & operators are deprecated with Celonis Process Mining 4.7:

1. The R Server functions from previous versions are deprecated and no longer available
2. Query Precaching is deprecated and can no longer be configured. Query caching replaces the precaching functionality and will be enabled by default from now on.

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Additional resources

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Help resources

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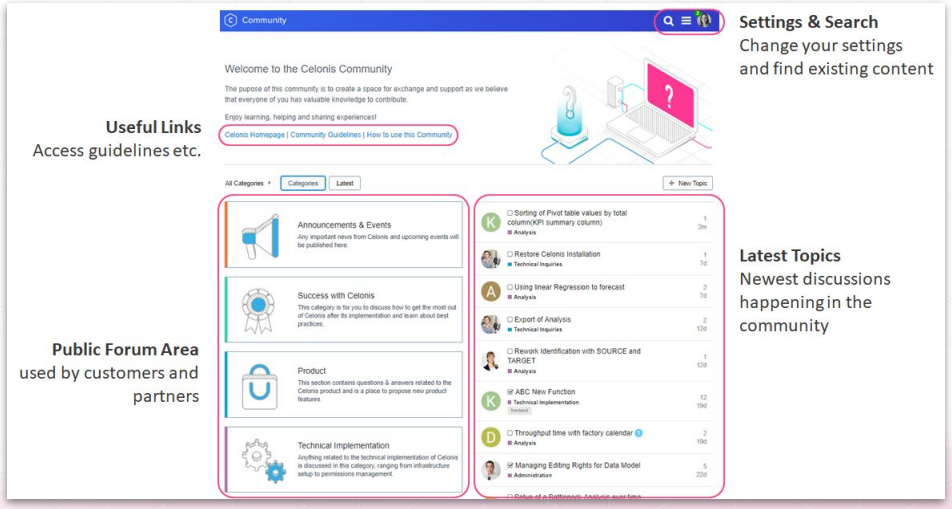
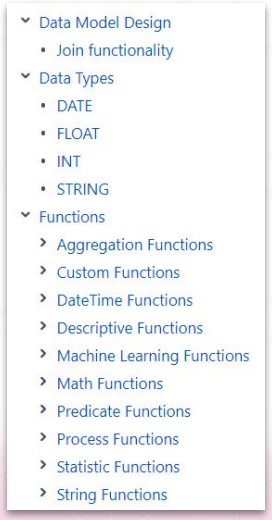
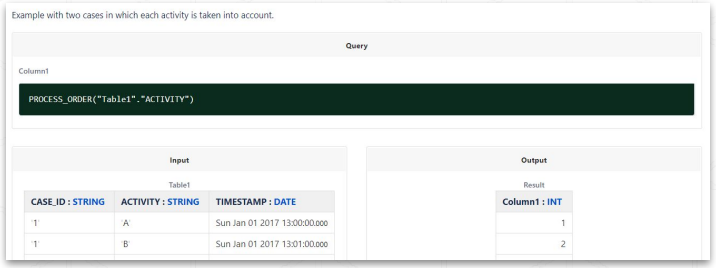
community.celonis.com

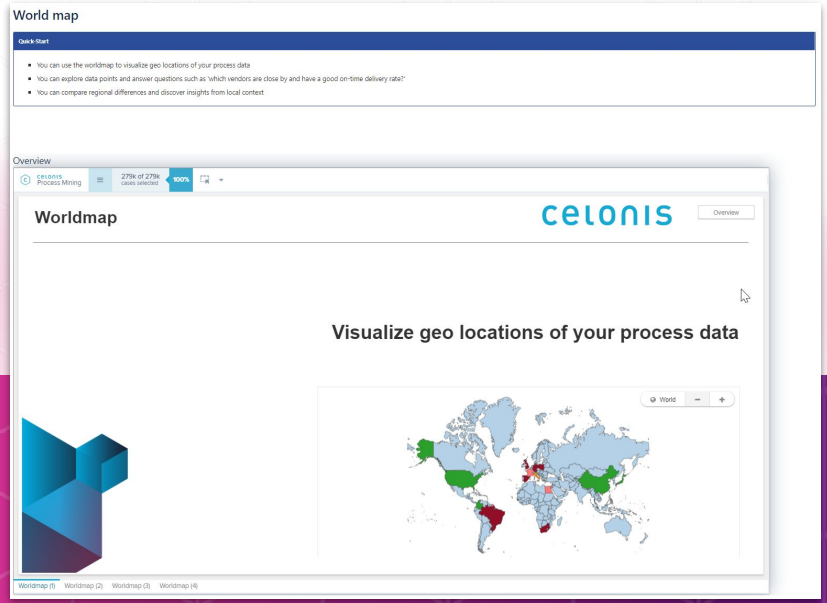


celonis Help Page

help.celonis.de







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