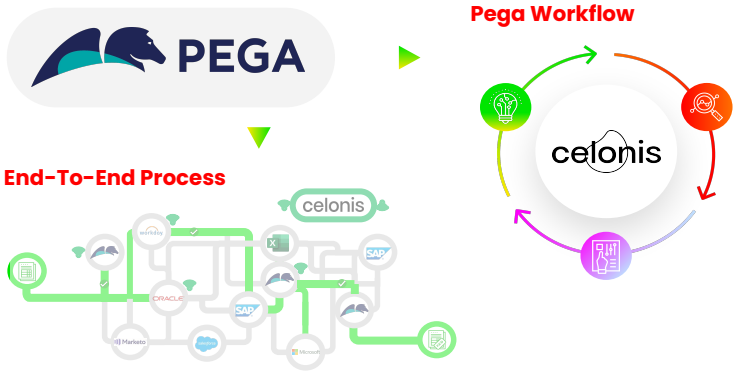
Celonis Process Connector

Market-leading Process Mining for your Pega applications

When your processes run better, your business runs better. The more fluid your operations are, the better the experience for your employees and customers. But over time, process friction creeps in due to business complexity. While Pega gives you the ability to build and execute on great processes, Celonis' AI-powered Process Mining technology provides the tools and underlying data to tackle complexity by intelligently enhancing Pega workflows.

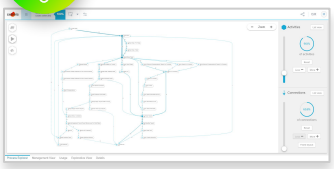
> "Celonis... the **market leader** in process mining
> - Market Guide For Process Mining 2019
> Gartner"

How Celonis works



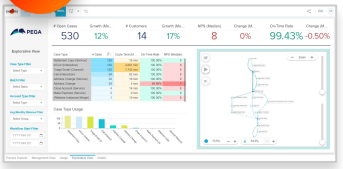
Connecting the power of Pega and Celonis will empower you to "supercharge" your Pega applications by leveraging Celonis intelligence. Beyond that, you will be able to put the execution of Pega workflows in the full context of end-to-end processes that can span multiple systems to turn them into extraordinary experiences.

Know



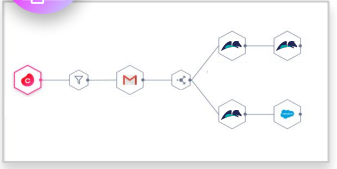
Know how your processes really run to understand how they work across Pega apps (and potentially different systems).

Sense



Sense friction points and leverage Process Mining AI to detect their root causes, as well as their impact on business outcomes.

Act



Act based on target-driven intelligence provided by Celonis to improve your Pega workflows every time you execute them.

Customer Success Worldwide

2000+
Customer deployments

15K+
Users

Industry-leading customers

Analyst endorsements

Sample Use Case

Customer Service: Overview

	Know	Sense	Act
Reduce Costs	Cases are not assigned to the right team, forcing re-assignment or leveraging more expensive teams.	Automatically detect cases that are assigned inefficiently.	Assign cases to the lowest cost team that can resolve the issue.
Increase Productivity	Specific process steps cause bottlenecks or are subject to unnecessary rework.	Analyze root causes for long runners and unnecessary rework activities, as well as automation rates.	Proactively optimize long-running activities and remove rework through automation.
Reduce SLA Violation	Multi-hops and inefficient case routing are causing a delay in resolution.	Use a machine learning model to predict resolution times.	Automatically escalate where necessary to optimize SLA compliance.

Customer Service: Success Stories

Uber

Employees
22,000+

Revenue
$14B+

Industry
Software

Uber delivers stellar customer experience across every region

"We look at where we create moments that excite the customer, and how we can then replicate those across different processes and locations."

Martin Rowlson
Head of Process Excellence
Uber

CompuCom

The Leading IT Outsourcing Specialist

Employees
11,000+

Revenue
$1.5B+

Industry
Professional Services

CompuCon visualizes service processes for actionable insights

"Celonis' biggest value is showing people how their processes really run, versus how they think they are being handled."

Joe Simon
VP of Reporting, Analytics & Data Science
CompuCon

$20M saved through efficiency initiatives

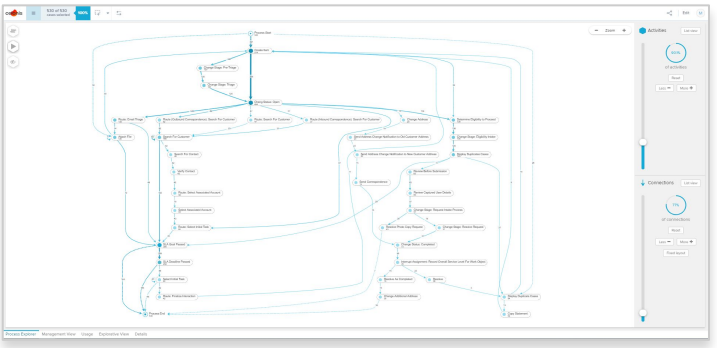
20% increase in process efficiency

PEGA x celonis Additional use cases coming soon!

Sample Pega Process Mining

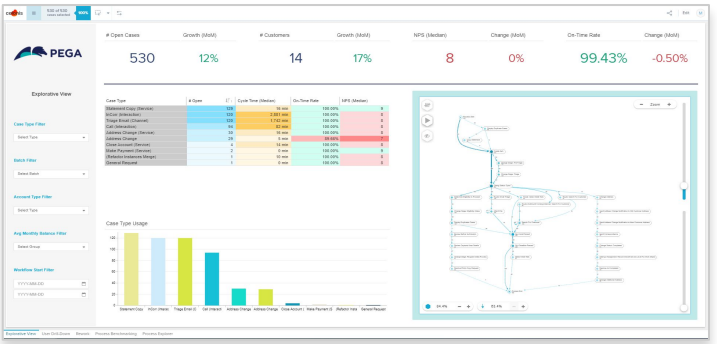
Know Your Process

The Process Explorer provides an initial overview of your end-to-end process as it is actually being executed. Building on that process transparency, Celonis empowers you to understand your as-is processes, all variants, how they work and why they occur.



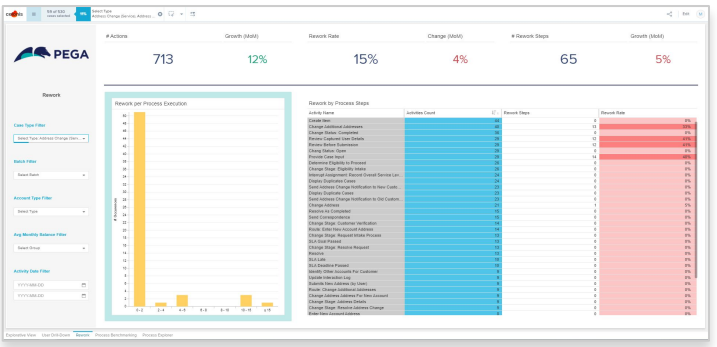
Sense Friction

Using Celonis, you can assess the reliability and efficiency of Pega workflow execution at a glance. That initial overview already points to specific improvement potentials. Celonis provides the ability to drill down and execute on those insights to boost workflow efficiency.



Purge Friction From Workflows

For example, a measure to optimize on-time rate can start with understanding rework and why it occurs to then trigger intelligent counteraction. Here, for instance, you could automate captured details validation based on historical process data using Celonis' AI.



PEGA × celonis

The continuous integration of Pega and Celonis will empower users to enrich Pega workflows with Celonis intelligence. Thereby, using Celonis for Pega will allow for "supercharging" Pega workflows to boost efficiency. Use cases for that are limitless and industry-agnostic, ranging from providing Pega agents with context-aware insights based on AI to intelligently triggering escalations.

Initial Setup and Configuration

Requirements

Pega setup with BIX enabled (or alternative option to provide Pega data in a database that can be accessed via JDBC), **Celonis** IBC team with access to Pega Process Connector

Version Change Log

Component Version	Description
1.0	**Initial release**

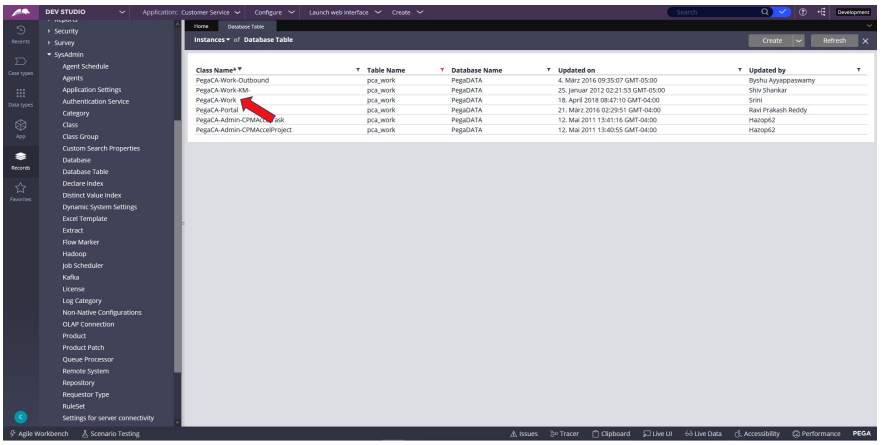
Defining Process-Relevant Database Tables and Classes in Your Pega System

At its core, the Celonis Process Connector for Pega is built on two Pega Database Tables:

- **pc_work**, which is the default table for cases
- **pc_history_work**, which stores work item history

Depending on your Pega use case, tables that include further contextual business data can be relevant in addition. For example, you might want to include account and contact data for a customer service use case as it will provide context, such as account priority or NPS.

1. Navigate to the Database Table view via your Pega app's Dev Studio: select *Records* >> select *SysAdmin* >> select *Database Table*
2. To identify the Class of your case table, filter on Table Name "pc_work". Note that the Table Name could differ slightly depending on your application (e.g., "pca_work" for customer service). In the results, identify the Class with suffix "-Work" and a prefix corresponding to your Pega application. (Example customer service: PegaCA-Work)



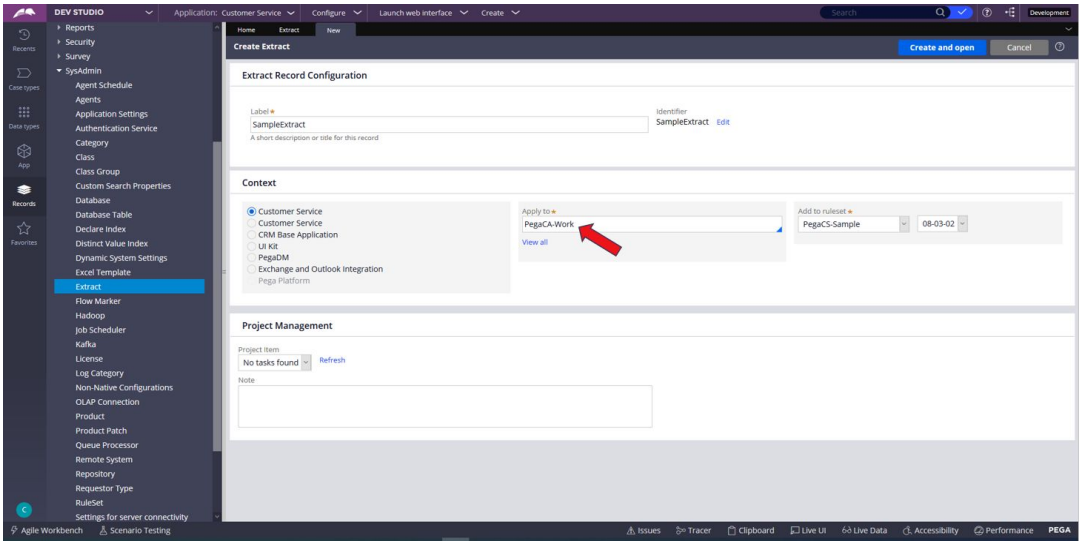
3. To identify the Class of your work item history table, filter on Table Name "pc_history_work". Then, search for a Class with prefix "History-", suffix "-Work" and a string in-between that corresponds to your specific Pega application. (Example customer service: History-PegaCA-Work)
4. Identify which additional business data from you Pega app you want to take into account. Often, that is data you can see in your Pega Dev Studio's *Data types* section, such as account or contact data for customer service apps. To identify the Class for data displayed in *Data types*, e.g., filter on "Interface" Class Name in the Database Table view and identify which Class Name matches the information you want to retrieve (Example Customer Service, account data: PegaApp-Interface-Account).
5. Repeat step 4 for additional data as required.

Initial Setup and Configuration (cont.)

Providing Pega Data To Celonis

After having defined which specific Pega Database Tables and Classes contain process-relevant data, the next step is to provide that data where it can be accessed by and extracted into the Celonis Intelligent Business Cloud. That can be achieved using Pega's BIX tool which allows for extracting Pega data into a directory/database which can then be accessed by Celonis. A BIX extraction, also referred to as an Extract Rule, extracts and exports Pega Class data in XML, CSV, or database schema format

1. **Please consult your Pega instance admin for this step.** Depending on your current setup and whether/where you already store Pega data, define in which directory/database you want to provide Pega data to Celonis. That data source has to be
    i. accessible via JDBC (recommended)
    ii. OR accessible via existing Celonis Cloud Extractor, such as Amazon S3
    iii. (OR accessible by a script where you implement the Celonis Data Push API to push data from the directory to your Celonis Data Pool as documented)
2. To create an Extract Rule, make sure BIX is enabled in your application by adding the Pega-BIX ruleset to your Pega app.
3. For each relevant Class identified in the previous *Defining process-relevant Database Tables and Classes in your Pega system* section, configure an Extract Rule in Pega. You can create a new Extract Rule in your app's Dev Studio: select *Records* >> select *SysAdmin* >> select *Extract* >> select *Create*. In the first screen that appears upon selecting *Create*, enter the Class that you want to extract data for in the *Apply to* field.



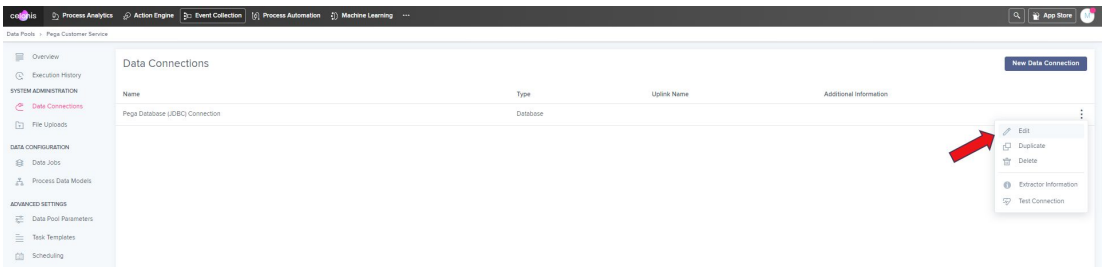
4. **Please consult your Pega instance admin for this step.** Depending on your choice in step 1, define the data output format in the *Definition* tab. You can then specify where to output the data (see option requirements in step 1) in the *File Specification* tab. If you want to provide data as csv files, you might consider using SFTP or file mover from Pega to store BIX output data in the location that you defined in step 1.
(Advanced note: you can use the Job Scheduler rule to automate BIX extractions.)

Initial Setup and Configuration (cont.)

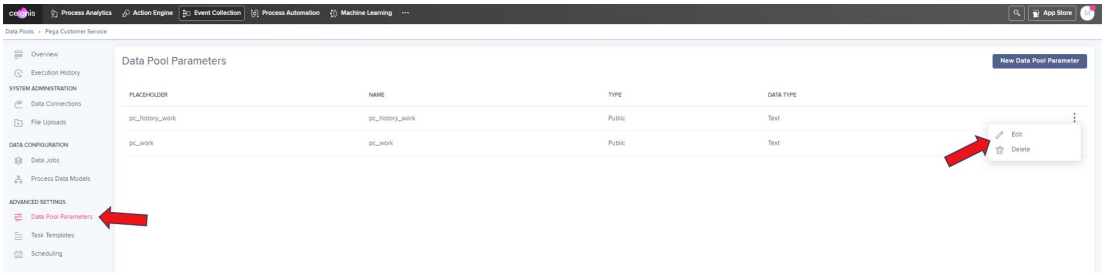
Extracting Pega Data Into Celonis

Now that you provided Pega data in a directory/database which can be accessed by Celonis, you can extract that data into the Celonis Intelligent Business Cloud.

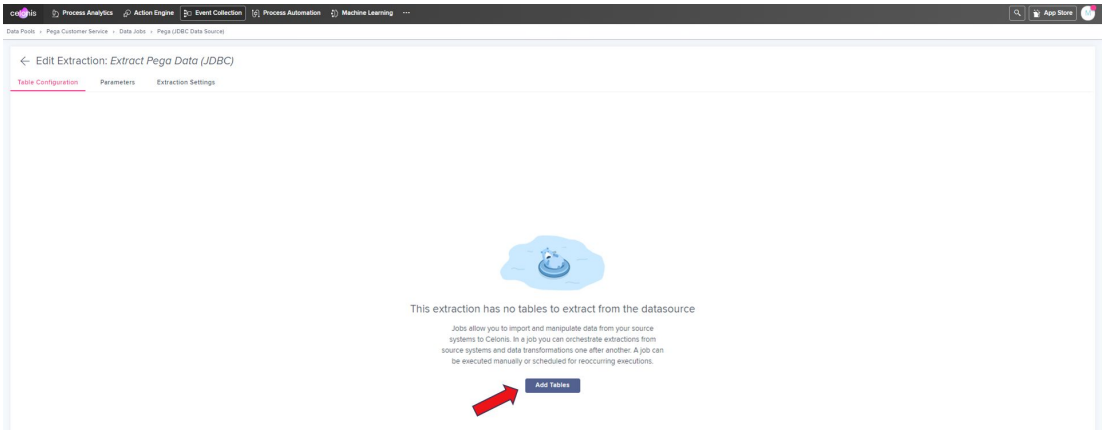
1. Download the Pega Process Connector from the Celonis App Store: open *App Store* from your Celonis IBC team >> select *Process Connectors* (top left) >> enter "Pega" in the search field >> select the Pega Process Connector >> select *Install Process Connector* >> follow the steps in the pop-up window. Note: If you cannot see the Process Connector in the App Store directly, request access via Celonis ServiceDesk.
2. After downloading the Process Connector, open the corresponding Data Pool and configure a Data Connection to the Pega data source where you provide the Pega data as configured in the previous section. (If you decide to push data directly to your Data Pool using the Celonis Data Push API as documented, you can skip this step.)



3. If the pc_work and pc_history_work table have a different name in the data source where your provide your Pega data, enter the name they have in the data source as input value for the pc_work and pc_history_work Data Pool Parameters



4. After establishing a connection to your Pega data source in step 2, add the tables from that source to an extraction in the Celonis Data Job. (If you decide to push data directly to your Data Pool using the Celonis Data Push API, you can skip that step.)

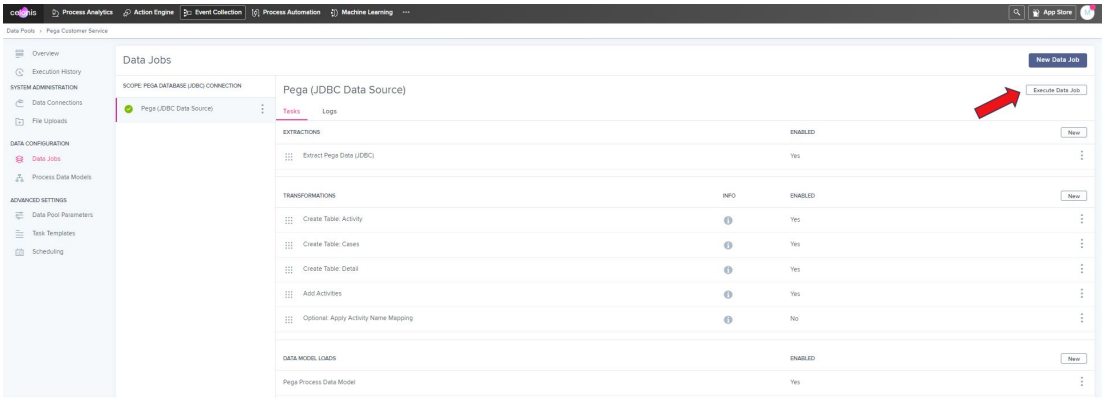


Initial Setup and Configuration (cont.)

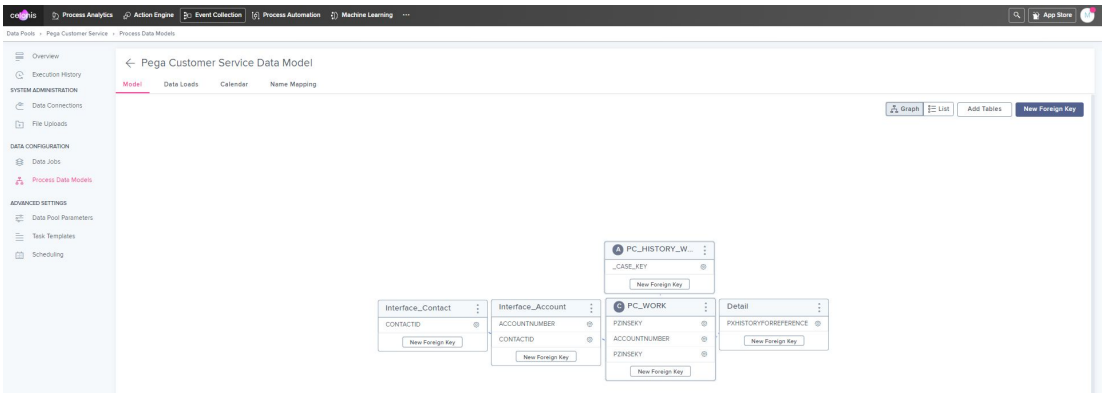
Setting up the Data Model in Celonis

Once you extracted the Pega data into Celonis, you can run out-of-the-box transformations and flexibly configure your Data Model.

1. Run the Data Job. It comes with Celonis transformation scripts to generate an activity and a case table based on extracted pc_work and pc_history_work data. (If you decide to push data directly to your Data Pool using the Celonis Data Push API, disable the extraction task in the Data Job.)



2. After you executed the Data Job, add any further table that contains contextual business data for your use case to the existing Data Model. Below is an example for customer service where tables with contextual account and contact data are added.



Configuring the Use Case in Celonis

Celonis provides you full flexibility to build on the initial setup depending on your individual use case, leveraging the entire range of Celonis capabilities from expanding your Data Model and creating analyses or Skills to leveraging Machine Learning Workbench.

Known Issues

- A direct cloud-to-cloud connection between Pega Cloud and the Celonis IBC is currently being worked on. It will provide users an additional option to extract data directly from Pega Cloud into the Celonis IBC.
- While the two most relevant tables pc_work and pc_history_work are standard Pega tables, further use case-specific data might be stored in individually named Classes/Data Tables due to the high degree of customizability Pega offers to its users. Therefore, initial configuration in Celonis might be required to integrate those tables.

Organization and Contact

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