

# PRODUCT DESCRIPTION:

# **Execution Management System**

The Celonis Execution Management System (EMS) is a technology built to achieve execution capacity breakthroughs. The EMS consists of real-time data connectivity, the Core Mining Engine, the Automation Engine, the Celonis Studio and the EMS Store that all run on the EMS platform.

# 1. Real-Time Data & Platform

FEATURE	DESCRIPTION
DATA LAKE	The Data Lake is the storage to hold the consolidated source system data as well
	as the data transformation technology to run the data transformations that will
	create the Event Logs.
EVENT COLLECTION	The Event Collection connects to a multitude of source systems to capture events i
	the form of digital footprints. Furthermore, it allows the User to transform the
	extracted data to construct a data model. The data pipeline can be orchestrated
	and automated through an user interface.
PROCESS CONNECTOR	The Process Connector is the combination of extracting, connecting and
	transforming data for one source system.
	System Extractor
	The System Extractor is the software component that extracts data from the
	source system and sends it out to EMS.
	Data Job
	A Data Job is the collection of data integration tasks which extracts and transforms
	the source system data and makes them available in the EMS.
	Data Model
	The Data Model is the logical description on how events and other data are related
	to each other. This can include one or multiple Event Logs.
TASK MINING	Task Mining enables end-to-end process insights by combining Business Data
	with Desktop Data on how your team executes its mutual tasks. Task Mining
	leverages Machine Learning and optical character recognition to prepare the
	data for analyses prior to loading it into the Core Mining Engine.



Please note: Task Mining is available by default and can optionally be activated by You. The data privacy legislation of the country in which the User of Task Mining is resident or otherwise subject to the respective legislation may be different. Therefore, prospective Users are advised to consult their data privacy experts before activating Task Mining.

# 2. Core Mining Engine

The Core Mining Engine is an in-memory engine that leverages process mining to measure execution capacity and identifies execution gaps. It works with business logic or machine learning to sense gaps that have the biggest impact on execution capacity and trigger actions in the Automation Engine.

FEATURE	DESCRIPTION
CELONIS PQL	Celonis PQL (Process Query Language) is Celonis' proprietary process-oriented
	query language to derive insights from process data.
MACHINE LEARNING	Machine Learning (1) provides other Celonis Products such as Process Analytics,
	Action Flows, or open application framework applications with advanced analytics
	data including predictions, simulation scenarios, or analysis of unstructured data,
	(2) is a platform for data scientists to build advanced analytics use-cases in an
	open ecosystem, (3) contains a python package to help the User solve the most
	common process related machine learning tasks. For heavy machine learning
	workloads, a dedicated instance is available as an add-on product.
MULTI-EVENT LOG	The Multi-Event Log capability combines processes into a single view to provide
	cross-process analysis, context and KPI calculations. Multi-Event Log enabled data
	models can have multiple case tables and thus multiple event logs in the same
	data model linked together by foreign key relationships, removing the need for
	complex SQL-joins when defining activities. Users can identify inefficiencies using
	cross-process KPIs and visualize end-to-end processes within a single analysis.
SIGNAL LINK	The Signal Link defines an out signal to link the data to each other written in the
	transformation script.



# 3. Celonis Studio

The Celonis Studio is a low code development interface that allows the User to build, customize, package, and publish execution applications and process analyses. The Celonis Studio is made up of a few key building blocks: Skill, Views, Analysis, and folders.

FEATURE	DESCRIPTION
ALERTS &	An Alert highlights changes or other important conditions in the data
RECOMMENDATIONS	and can be seen by any user who has access to the underlying data. It
	does not contain a prescribed action. The prescribed actions will be
	messaged to User via a Task. Tasks have visibility restrictions and can
	only be seen by certain defined users.
PACKAGES	Packages are the main structural element in the Celonis Studio and
	contain collections of assets that interact with each other to generate
	an execution app. Within packages the User can create Views, Skills,
	Knowledge Models and
SKILLS	A Skill is an intelligent automation. They are composed of a sensor, which
	contains the logic to determine when the Automation needs to run,
	together with one or more Action Steps that define what happens after
	the Sensor is triggered. Skills are executed by the Celonis Automation
	Engine. The Action Steps can be automations (API calls) to other systems,
	alerts to end-users, or prioritization of work in Celonis user-specific Views.

# Analyses Features in the Celonis Studio

FEATURE	DESCRIPTION
ACTIVITY EXPLORER	The Activity Explorer provides an alternative to find out how activities relate
	to Your process.
BOOKMARKS	Bookmarks can be used to store findings. By setting a bookmark, the currently used filters will be saved for future use.



CASE EXPLORER	The Case Explorer allows the User to explore the process based on the end to end variants
CHARTS AND TABLES	Charts and Tables can be created and edited to illustrate certain data. The following components can be used: OLAP tables, column charts, pie charts, donut charts, line charts, area charts, marker charts, scatter plots, bubble plots, histogram charts, single KPIs (gauge, number, fill, and radial), pivot tables, box plots, and world maps.
CONFORMANCE CHECKER	The Conformance Checker uses artificial intelligence to automatically detect non-conformant cases and to outline their violations, root-causes and impact on KPIs, by comparing the mined as-is process against a target process model. To define the target model, the Conformance Checker supports importing .bpmn files (BPMN 2.0 Standard), modelling processes with the built-in process modeler or automatically documenting the mined as-is process as the target model.
DESIGN COMPONENTS	With Design Components the User can enrich the analysis sheets with various design features. The following components are available: variable input, button, button dropdown, text components, image, line, logo.
FILTERING	Dynamic filters allow the User to create selections from any component of an analysis sheet, filtering the whole analysis document. Only cases that meet the selected filter criteria are then examined in the components.
KPI LIBRARY	Saved formulas allow the User to create their own reusable KPI Library. It is possible to define replaceable parts of the formula with the help of customizable parameters. Thereby the User can define which parts of the formula are editable by other users.
PROCESS EXPLORER	The Process Explorer allows the User to explore the process based on the frequency of activities performed in the process.
PROCESS REPOSITORY	The Celonis Process Repository is an integrated and centralized environment for documenting and maintaining business processes. It supports versioning and it integrates with third party Business Process Management tools. The stored models can also be accessed directly from the Conformance Checker.
PROCESS SIMULATION	Process Simulation allows the User to measure the impact of possible changes on Your processes and their effect on Your operations. You can dynamically simulate all parts of the process and, thereby, assess optimizations without risk.
SELECTION COMPONENTS	Selection Components are built to facilitate the creation of filters. The following components can be used: dropdown, date picker, cropping, search.



SELECTION VIEWS	Selection Views are predefined filters, which enable the User to filter based	
	on a selection of attributes, activities, process flows, throughput times,	
	rework rates, or cropped subprocesses.	
THROUGHPUT TIME SEARCH	The Throughput Time Search allows the User to examine the throughput	
	time between two specific activities.	
VARIANT EXPLORER	The Variant Explorer allows the User to explore the process based on the	
	end to end variants.	

#### **Action Flows**

**FEATURE** 

SCHEDULED ACTIONS

Action Flows provide a real-time automation engine integrated with Celonis' process mining technology to perform next-best actions in cloud, on-prem, and custom applications. Next-best actions comprise unattended automations in enterprise IT systems as well as "human in the loop"-type automations by creating tasks & alerts for users in the EMS. Action Flows can be built using a no code drag & drop builder.

**DESCRIPTION** 

Schedule whenever an Action Flow should be executed (e.g.

DRAG & DROP ACTION	Configure action flows with a visual, no-code drag & drop
FLOW BUILDER	editor.
PRE-BUILT AUTOMATIONS	Use 10,000+ pre-built automations across 700+ applications
	to perform automations.
ON-PREM AUTOMATIONS	Automate in 15+ enterprise on-prem applications using the
	Celonis On-Prem Agent.
AUTOMATIONS IN CUSTOM SYSTEMS	Perform API-based automations in custom systems.
PROCESS MINING INTEGRATION	Use Celonis Process Query Language (PQL) to enable
	automations through application of Celonis data.
ADVANCED ERROR	Use advanced error handling features to recognize and
HANDLING	resolve issues before they become apparent to the business.
ADVANCED AUTOMATION TOOLING	Use repeaters, iterators, aggregators, routers and more to
	configure advanced Action Flows.

daily, every Tuesday at 9 am, ...).



#### 4. EMS Store

The EMS store allows for distribution and no-code installation of execution apps and instruments developed in the Celonis Studio. You can use it to distribute applications and instruments publicly on a market place that allows them to be sold. As a customer you will find execution apps and instruments ready for installation for various processes and use cases.

#### 5. Execution Applications

The Celonis Execution Application identifies execution gaps and delivers an approach to fix them. They are tailor made for specific processes with pre-built role-based views, best practice KPIs, and Action Flows. The Celonis Execution Applications are available within Your Execution Management System.

#### 6. Process Analyses

Process Analyses enable analysts to measure execution capacity and identify execution gaps. They are tailor made to measure specific KPIs on a unique process and contain pre-built views for analysts.

### 7. Other Components

#### **Transformation Center**

The Transformation Center helps the User monitor the performance of all Your processes in one central place. It provides the User with an overview of Your objectives and KPI development. The Transformation Center is designed to measure the success of Your process improvement and transformation initiatives.

In the Transformation Center, the User can define qualitative objectives (e.g. strategic initiatives) and assign associated quantifiable KPIs for any data model. This allows You to align Your team, department and company and monitor your transformation journey.



# Platform & Team Management

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The platform administration is a set of capabilities and administrative controls that correspond to all aspects of the EMS platform, including deployment settings & configuration, licensing and team management.

DESCRIPTION	
Application Keys are used to authenticate scripts and applications.	
With the Permission & Access Control You are able to authority differe	
Data and User Permissions in the EMS Team.	
The Team Security & Privacy is defining which User is capable of sharing	
and accessing the content in the EMS. A Two Factor Authentication	
enforces users to validate their identity via email before they can log in	
and the history of the log-ins will be tracked additionally.	
The User Authentication tells the system who the User is and authenticates	
the business system underneath. It also contains the Celonis Identity	
Provider which allows to manage user accounts within the EMS Team and	
a Single Sign On function which allows to integrate the EMS to user	
authentications via active directory or similar to require all users to login	
with a central user account.	
With the User Management You can manage Your team settings within the	
EMS tenant. The team members contain out of Users, Analysts and Admins	
and can be set up into specific User Groups.	

The Celonis Execution Management System is a cloud service accessed via web interface. Full functionalities are only available in a full cloud deployment.

This Product Description for the Celonis Execution Management System replaces the Product Description for the Celonis Intelligent Business Cloud as of its release date. Therefore, all features previously described in the documents relating to the Celonis Intelligent Business Cloud are now collectively described in this Product Description for the Celonis Execution Management System and its successive versions. Please note that the preceding provisions do not apply to licensees of SAP Process Mining by Celonis, Cloud Edition.