



# **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 Engine, 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. Automation Engine

The Automation Engine is an integration platform (iPaaS) with a next-best action capability to perform automations in cloud, legacy and custom applications and to execute next-best actions from Celonis data. Next-Best action compromises direct automations in enterprise IT systems as well as "human in the loop"-type automations by creating tasks & alerts on Business Views. Due to built-in app knowledge templates and pre-configured automations, it allows the User in the Studio to configure automations in a no-code environment.

FEATURE	DESCRIPTION
PRE-BUILT	Connect to source systems through point-and-click connections with full support
INTEGRATION AND	for RESTful or SOAP integrations.
ENTERPRISE APIS	
POINT-AND-CLICK	Build enterprise-grade workflows, with application-specific form-based
WORKFLOW BUILDER	integrations and pre-configured actions.
BUSINESS-CENTRIC	Deploy workflows that use conditional logic, based on contextual information
WORKFLOW LOGIC	specific to the individual case ID. Take action in downstream systems as a specific
	user, to ensure tracking and auditing of updates to systems.

## 4. Celonis Studio

The Celonis Studio is a low code development interface that allows the User to build, customize, PACKAGE AND PUBLISH EXECUTION APPLICATIONS AND EXECUTION INSTRUMENTS. 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 Analyses



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.

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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.
SELECTION	Selection Components are built to facilitate the creation of filters. The following
COMPONENTS	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	The Throughput Time Search allows the User to examine the throughput time
SEARCH	between two specific activities.
VARIANT EXPLORER	The Variant Explorer allows the User to explore the process based on the end to end variants.

#### 5. 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.

#### 6. 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, Skills and Sensors. They also include the Execution Instruments for the specific process. The Celonis Execution Applications are only available under a separate subscription at extra charge which will be entered with an individual Order between Celonis and You.





### 7. Execution Instruments

The Celonis Execution Instruments enable process 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 Process Analytics views for analysts.

#### 8. 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

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.

FEATURE	DESCRIPTION
APPLICATION KEYS	Application Keys are used to authenticate scripts and applications.
PERMISSION &	With the Permission & Access Control You are able to authority different Data and
ACCESS CONTROLS	User Permissions in the EMS Team.
TEAM SECURITY &	The Team Security & Privacy is defining which User is capable of sharing and
PRIVACY	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.
USER	The User Authentication tells the system who the User is and authenticates the
AUTHENTICATION	business system underneath. It also contains the Celonis Identity Provider which





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