Celonis Process Sphere provides easy access to the benefits of Object-Centric Process Mining

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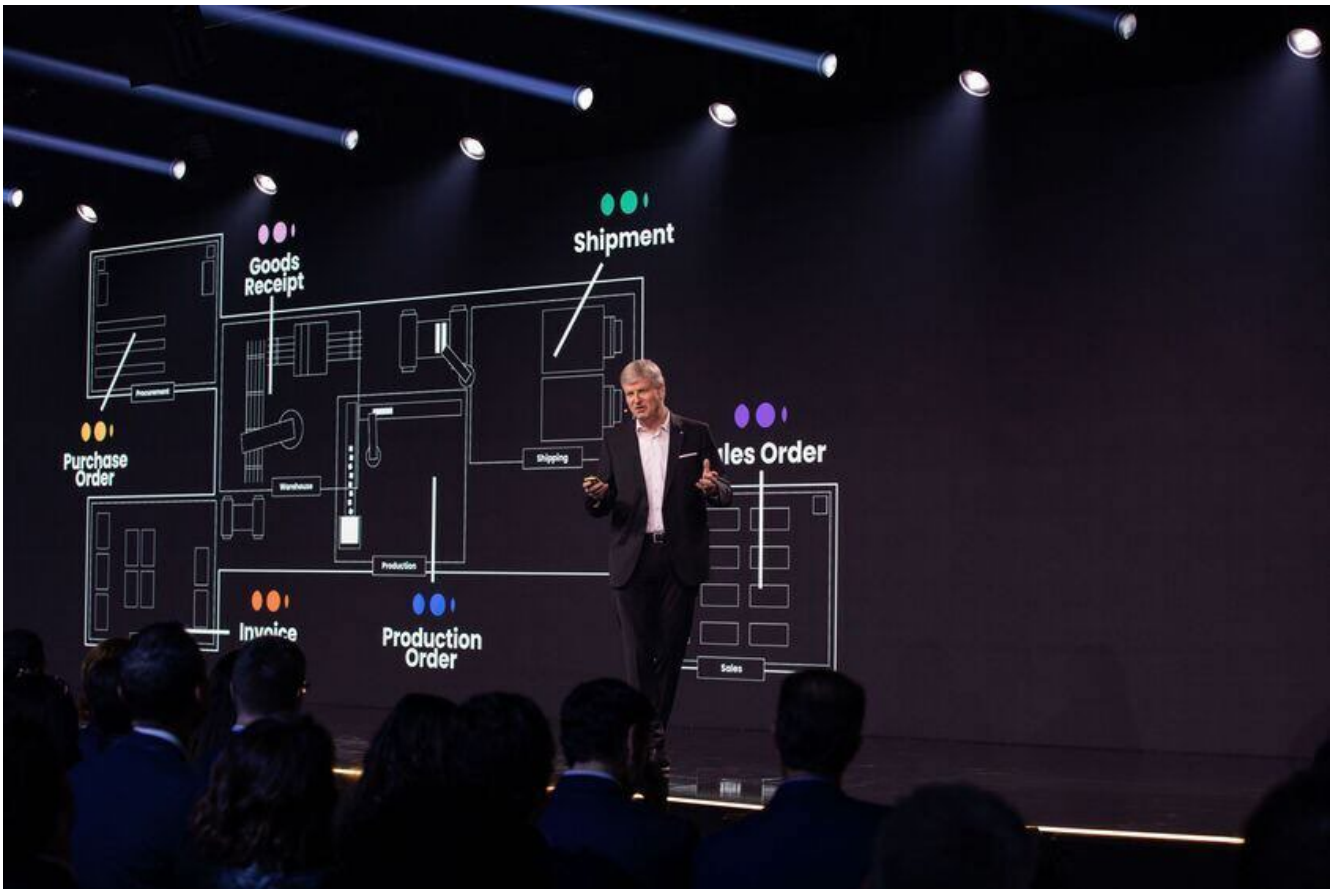
At Celosphere 2022, Celonis unveiled two new products: Celonis Process Sphere and Celonis Business Miner. Celonis is the first technology provider fully embracing Object-Centric Process Mining (OCPM).

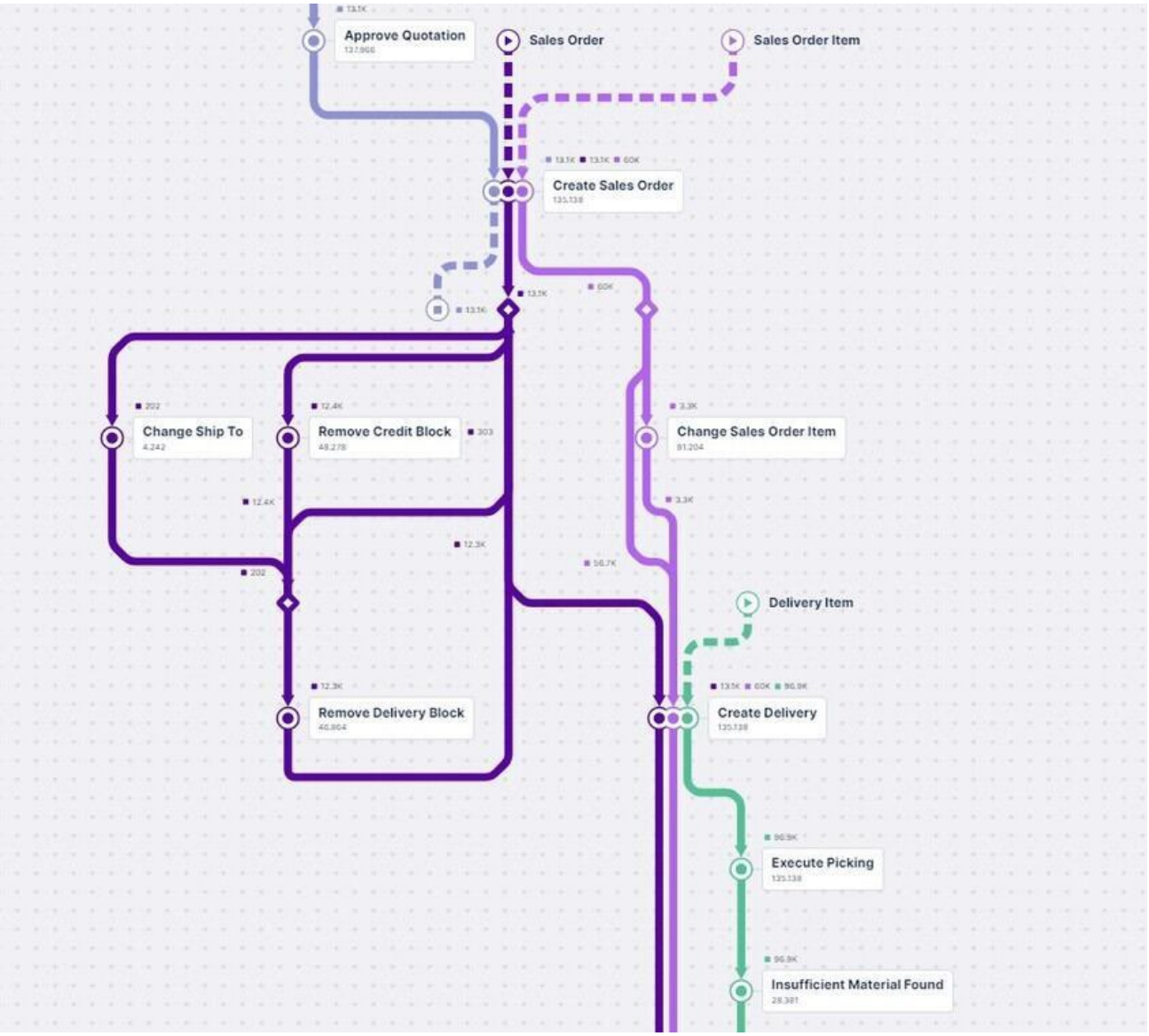


Traditionally, events are related to a single case. In OCPM, events may refer to any number of objects. Consider, for example, a customer placing an order consisting of five items. Of these five items, two are in stock, and three still need to be produced. The customer order triggers three production orders. The two items in stock are shipped immediately, whereas the three order products are shipped later. After shipping all the items, the invoice is sent. In this small example, we are dealing with objects such as customers, sales orders, sales order items, production orders,

shipments, invoices, etc. One sales order may be related to multiple items and multiple shipments. Moreover, one shipment may contain items of different sales orders by the same customer. This illustrates that there can be many-to-many relations between objects, and events need to refer to multiple objects. Traditionally, we focused on each of these different objects in isolation, i.e., we created an event log for sales orders, an event log for production orders, an event log for invoices, etc. This is far from optimal and leads to convergence and divergence problems. Also, process models get more complex by mixing up the different objects, and for each view, one needs to create a new event log. Simply put, using OCPM, we are moving from two-dimensional static views of our processes and organizations to a three-dimensional dynamic view. This way, Process Sphere allows Celonis users to look at processes from any angle, and there is no need to create new event logs for different questions.

This is a major breakthrough in process mining, as acknowledged by the participants of Celosphere (around 3.000 on-site and 20.000+ online). By fully embracing OCPM and the powerful Process Sphere visualizations, Celonis lowers the threshold to analyze and improve real-life processes. It also illustrates the successful transfer of research to application. Within the Process and Data Science (PADS) group at RWTH Aachen University, we have been working on the foundations of process mining resulting in the OCEL standard (http://ocel-standard.org/), the OC-PM tools (web-based https://www.ocpm.info/ and in ProM https://www.promtools.org/), and OCpi (https://ocpi.ai/). If you want to dive deeper into the concepts, take a look at “Discovering Object-centric Petri Nets”. Fundam. Informaticae 175: 1-40 (2020), https://doi.org/10.3233/FI-2020-1946. This is a major step forward in the development of the field and a nice example of the collaboration between Celonis and RWTH. Note that earlier this year, Celonis also opened an Engineering and Innovation Lab on the RWTH Aachen campus.

Next to the Process Sphere, Celonis also presented the new Business Miner. This new process mining tool guides the user to find performance and compliance problems in a goal-oriented manner. The Business Miner can be used to analyze any process, but for known processes, it provides additional support by leveraging domain knowledge.
See https://www.celonis.com/press/celonis-unveils-industrys-first-process-mri-and-extends-execution-management-to-all-business-users for the press release announcing these two products.


Approve Quotation
Sales Order
Sales Order Item
Create Sales Order
Change Ship To
Remove Credit Block
Change Sales Order Item
Delivery Item
Remove Delivery Block
Create Delivery
Execute Picking
Insufficient Material Found