STAMP-Online Case "Big Data and Audit"
Celonis Cheat Sheet
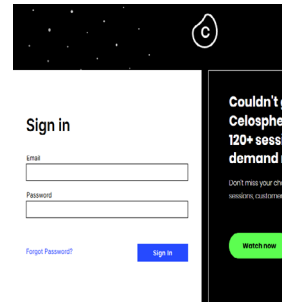
Content

1   First Steps in Celonis

1.1   Log-In

Please log into your Celonis Academic account using the following link: https://id.celonis.cloud/ Upon log-in, choose the team "academic-maico-schoene-fau-de".

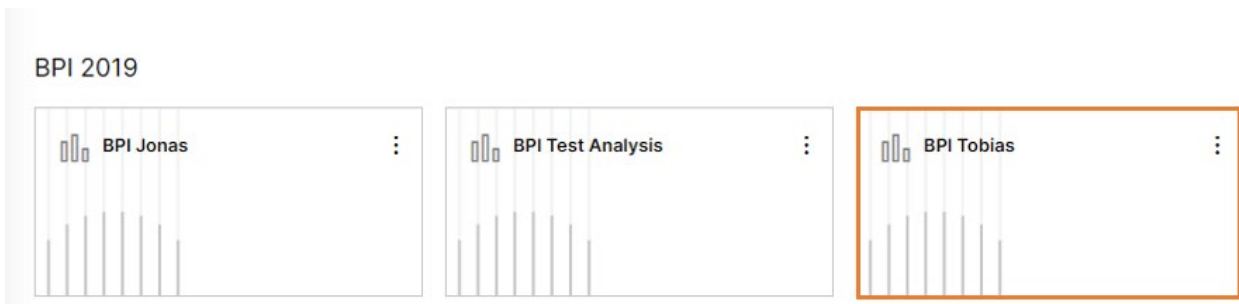## 1.2   Navigate to an Analysis

You can find the "Process Analytics"-App by clicking on the three dots in the upper left corner and open "Process Analytics"
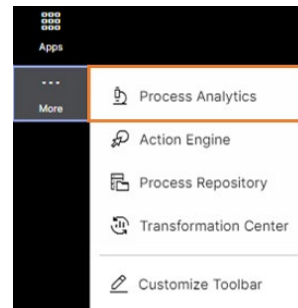
1.3   Create an Analysis
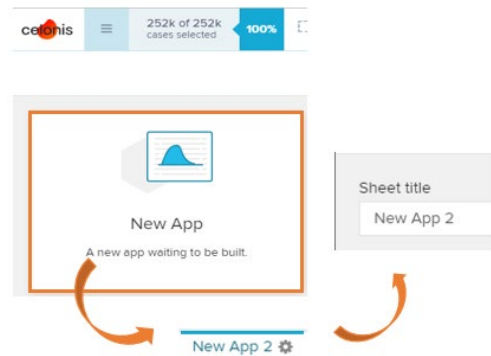
1.4   Open an Analysis

2   Your Analysis

2.1   Add a new Sheet

After opening/creating the Analysis select "New App" to Start with a blank sheet.

You can then rename your Analysis by clicking on the little Wheel in the lower left corner besides "New App 1".

2.2   Add Components

To add components the Edit button on the upper right corner always has to be activated!

As soon as the edit mode is on you can add several components.
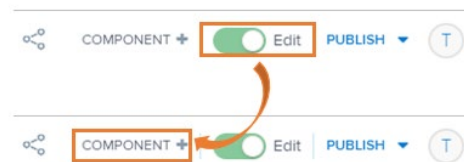
2.3   Change Component Title

For clarity you can give most of the components a title (At example the Process Explorer).

2.4   Working with components

If you want to work with components the edit button must be unchecked.

3   Components

3.1   The Process Explorer

a) General Information about the "Process Explorer"

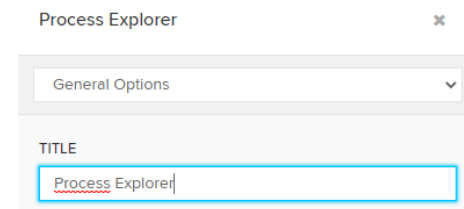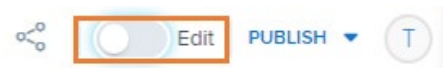The Process Explorer is an analysis tool to use when taking an exploratory approach. However, the Process Explorer initially does not reflect all the activities and connections that the cases in the analysis have gone through; that would be overwhelming. Before we review how to add more activities and connections though, let's focus on interpreting the numbers noted on activities and connections.

b) Add the Process Explorer

Go to the Analysis you previously created, and switch to "Edit" mode if you need to, in the upper right. Then Select the "Process Explorer" as a "New Component".

c) Working with the Process Explorer
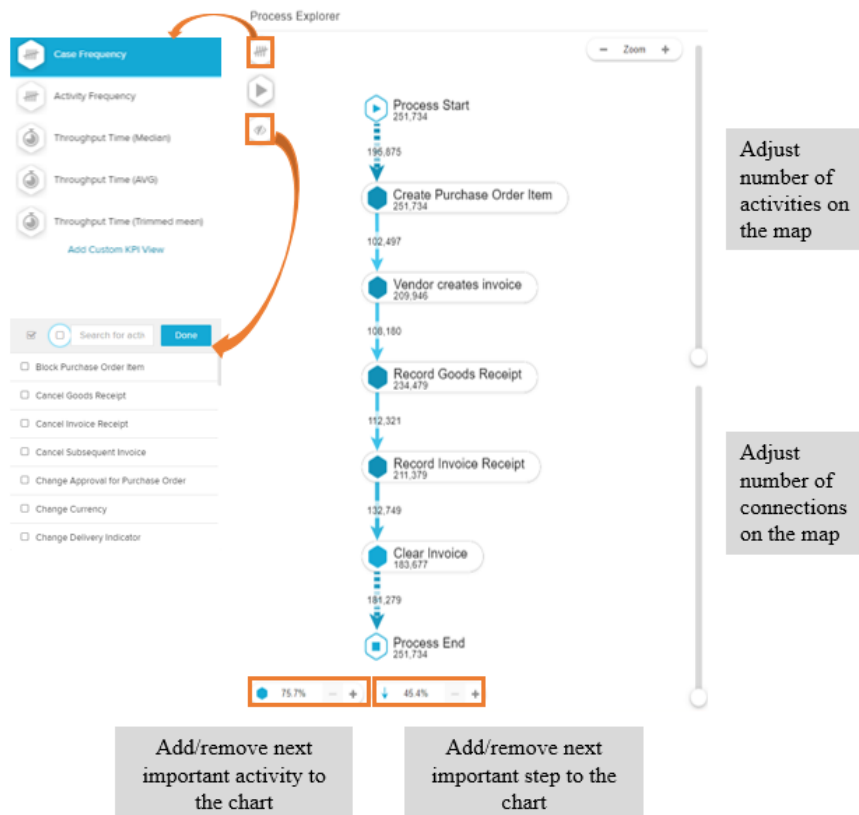
3.2   The Variant Explorer

a) General information about the Variant Explorer

As the name implies, using the Variant Explorer, you can discover all the process variants – that is all the different ways the process flows in your organization. The Variant Explorer is one of the Analysis tools to help you take an "exploratory" approach to find out how your process is performing.

b) Add the Variant Explorer

Go to the Analysis you previously created, and switch to "Edit" mode if you need to, in the upper right. Then Select the "Variant Explorer" as a "New Component".

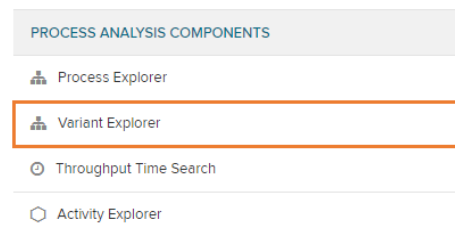

c) Working with the Variant Explorer

Add/remove variants to the process graph

Standard KPIs

3.3   Selection Components (for filtering data)

a) Add Selection Components

Go to the Analysis you previously created, and switch to "Edit" mode if you need to, in the upper right. Then Select the "Dropdown" as a "New Component".

b) Work with Selection Components

After the preferred Selection Component has been selected you can configure the Selection Component by pressing on f(x).

At example you can add a Dropdown to filter within the users:
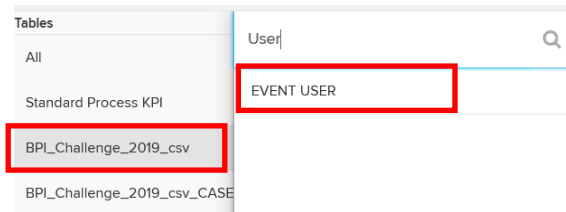
Table: BPI_Challenge_2019_csv

"EVENT USER"

c) General information

Analysis includes four types of selection components. (Dropdown, Date Picker, Cropping, Search) With these components, users can filter on the analysis.

3.4 Charts and Diagrams

a) General information about Charts and diagrams

Charts and diagrams are critical components of analyses. They help us understand the process and are the go-to tools to drill down on root causes of process inefficiencies. Let's say we're working with the Process Explorer when we notice an undesired activity. We filter on cases with this undesired activity and from there, we turn our attention to the updated charts and diagrams to start to drill down on possible root causes.

b) Add a Chart

Go to the Analysis you previously created, and switch to "Edit" mode if you need to, in the upper right. Then Select the "Column Chart" as a "New Component".

First Add a Dimension. At example:

"EVENT TIME.TIMESTAMP"

Choose the formatting e.g.

DATE FUNCTION: Round Month

Confirm your selection with "Done".
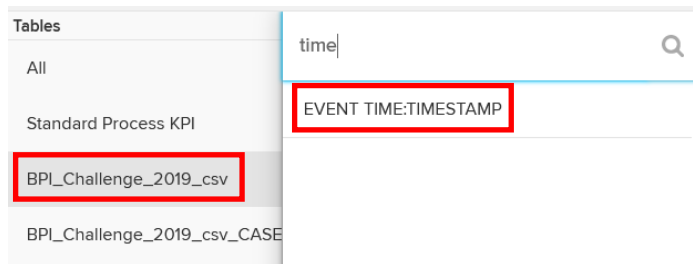
Then add a KPI to your Chart.

For example "Activities count"
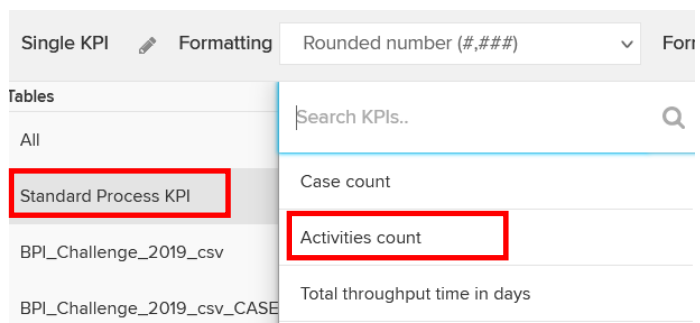
3.5 Single KPIs (case count, value, throughput time etc.)

a) General Information

Celonis Analysis includes four types of single KPI components. The most common use cases for the single KPI component include the case count and net value. For both, you would use the Number KPI.

Aside from the Number, you might choose other Single KPI components such as Gauge, Fill, and Radial, depending on what you need to display. The Radial, for ex-ample, would be appropriate for displaying percentages. Below are a few examples.

b) Add Single KPIs

Go to the Analysis you previously created, and switch to "Edit" mode if you need to, in the upper right. Then Select the "Number" as a "New Component".
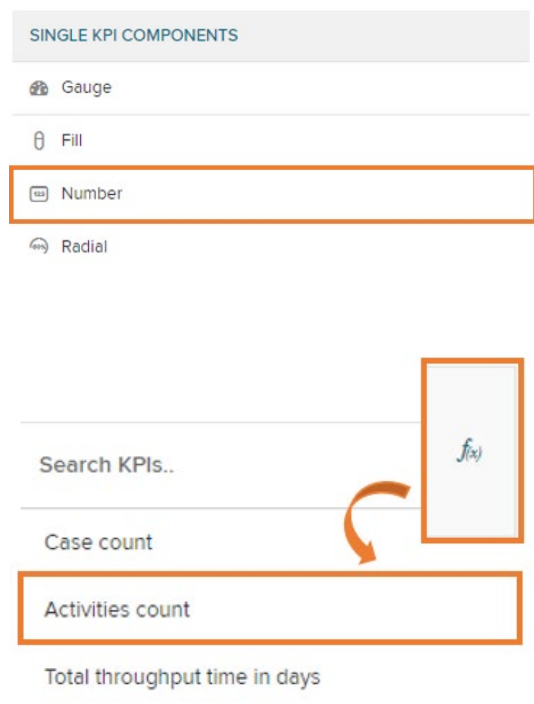
After the preferred KPI Component has been selected you can configure the KPI by pressing on f(x). You can format the KPI like in the OLAP Table.

c) Work with Single KPIs

To exclude a component from the filter, you can activate the "Component is not filtered with selection" checkbox. This way, the component will be static. In that case, note the fact that the KPI is static in the title.

3.6 OLAP Table

a) General information about the OLAP Table

Charts and tables display a combination of dimensions and KPIs, providing us meaningful process details to help us understand how the process is per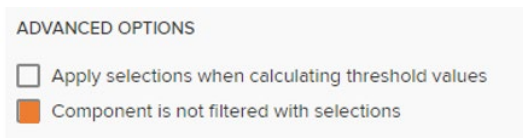forming. Additionally, in combination with the Variant and Process Explorers, charts and tables enable us to identify root causes of process inefficiencies.

A dimension is a category of attributes; for example, the dimension "customer name" is a category for individual customer names. Other examples of dimensions, depending on the nature of the process, can include vendor name, sales organization, region, and material group.

Key Performance Indicators (KPIs) are used to calculate and add aggregated values; for example, case count, order value, invoice value, throughput time, and automation rate.

b) Add the OLAP Table

Go to the Analysis you previously created, and switch to "Edit" mode if you need to, in the upper right. Then Select the "OLAP Table" as a "New Component".
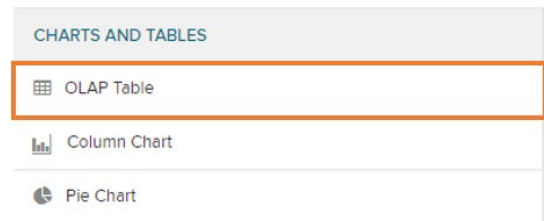
c) Work with the OLAP Table

First Add a Dimension.

At example "EVENT USER"

Confirm your selection with "Done".
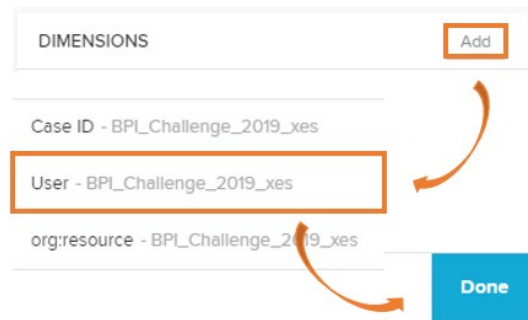
Then add one or more KPIs to your OLAP Table (At example "Case count")
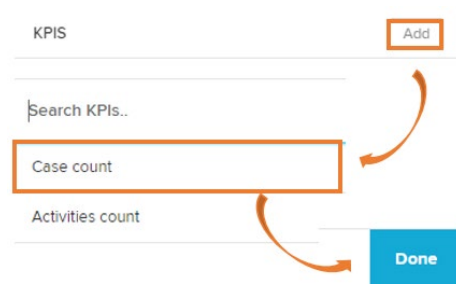
It is also possible to configure and format the selected KPIs.

When selecting certain KPIs you can choose between different

- "General" (No Transformation),
- "Aggregate" (Count, Sum, Average ...) and
- "Other Functions" (First ...).
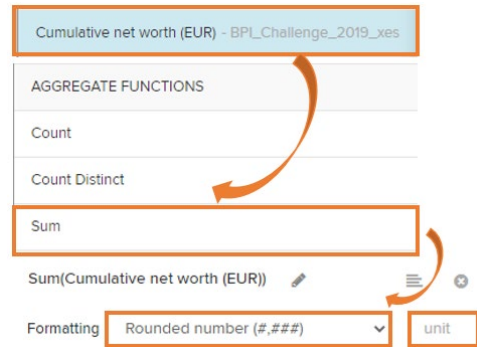
At example

"EVENT CUMULATIVE NET WORTH (EUR)"

→ "Sum"

Sometimes it can be useful to format the result.
In this example "Rounded number"
and "€" as the unit

3.7 Configure Custom KPIs (Visual Editor)

a) General Information

Here, after selecting Add KPI, we'll start in the Visual Editor, as such, you'll see 8 different categories are available.
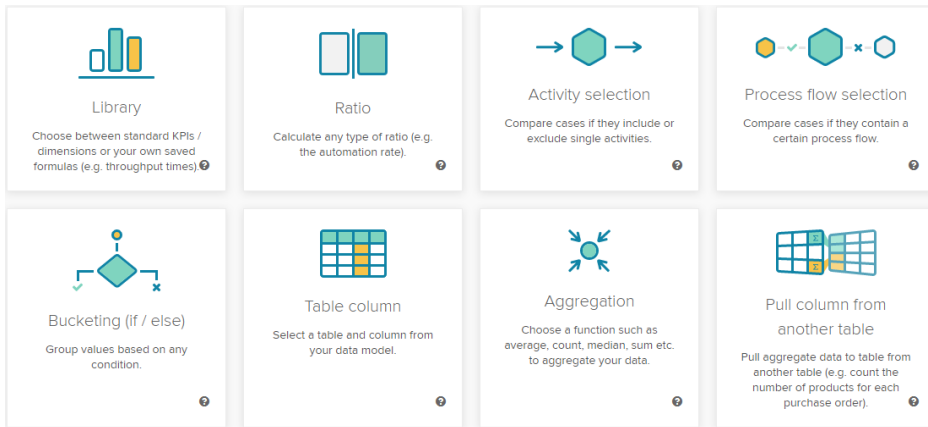
You're empowered with creating custom KPIs to give users clear insights as they drill down into the analysis and root causes of inefficiencies.

b) Add custom KPIs

Go to the Analysis you previously created, and switch to "Edit" mode if you need to, in the upper right. Then Select the "Number" as a "New Component" or add an OLAP Table.


c) Work with custom KPIs

After the preferred KPI Component has been selected you can configure the KPI by pressing on f(x). Besides the possibility to choose a standard KPI you can create your own KPI. (At example the No. of price changes per User)

3.8 Configure a Conformance Checker Sheet

a) General Information

Conformance checker compares every single case to your to-be process model and provides automated insights on the performance of the process. But a conformance checker needs a defined process model to evaluate the conformance of cases.

When adding a new sheet, once you click the Conformance checker, you'll see a few different options to define the to-be process model for the Conformance sheet. Click each marker to find out what choosing each of the four options entails for you.

b) Add a Conformance Checker

Go to the Analysis you previously created. Then add a new sheet in the lower left corner. Select the "Conformance" and then mine the process

c) Work with the Conformance Checker

4   Review and Interpret an Analysis

4.1   Selection
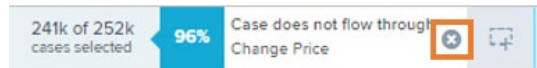
a) General information

Selection Views offer a more comprehensive set of options to filter on cases as compared to what you can do in the components in analysis sheets. For perspective, when you filter on cases in analysis sheets, you're actually using one of the six Selection Views!

b) Navigate to Selection Views

Go to the Analysis you previously created. Then click on the Window in the upper left corner. Now you can select between the several selection options.

As soon as you made some sections you can discard them in the upper left corner as well.

c) Work with selection views

Filter on cases by an attribute you don't see in the charts and tables.	Select cases that flow through or don't flow through one or more specific activities and even further specify whether they start or end with a particular activity.	Process Flow Selection is useful when you need to filter on cases where a specific activity is or isn't followed by another specific activity.
Attribute selection Select cases based on specified attributes. e.g. only cases where region is "china", or cases that started on 2nd of February 2015.	**Activity selection** Select cases that flow or don't flow through specified activities. e.g. only cases that start at "Create Purchase Order" and flow through "Delivery of goods"	**Process flow selection** Select cases where a specified activity is or isn't followed by another specified activity. e.g. only cases where "Invoice sent" is followed by "Invoice canceled"
Throughput time selection Select cases where duration between two activities is faster/slower than defined period of time. e.g. only cases where duration from "Item sent" to "Item received" is shorter than 3 days.	**Rework selection** Select cases where an activity occurs less or more times than defined threshold e.g. only cases where "Invoice paid" happens more than once.	**Crop selection** Crop the cases to display only activities occurring inside the cropped area. e.g. only the process between "Phone support ticket created" and "Process end".
Using the Throughput Time Selection, you can filter on cases where the throughput time between two activities exceeds or falls below a time threshold you specify.	You would use the Rework Selection if you want to look at cases where an activity occurred more or fewer than a specific number of times or between two specific thresholds.	You can use Crop Selection when you want to focus your analysis on all activities and connections between two specific activities.

4.2   Bookmark

a) General Information

Let's say you've filtered on your analysis and would like to be able to quickly apply the same filters next time. You can save your selection as a bookmark. It doesn't matter how you've filtered on cases, whether in the Variant or Process Explorer, via tables and charts, or by using Selection Views.

You can do so by going to the Analysis toolbar, then clicking the dropdown arrow, and selecting "Save selection as bookmark". You'll be asked to name the bookmark.

To access the bookmark next time, use the same dropdown arrow and choose Load bookmarks.

If you hover over a bookmark, you'll see options to edit it, share it with your team, and delete it. Note that this sharing option simply makes the bookmark available to your team via the Load bookmark option; it does not generate an email with a link to the selection.

b) Navigate to Bookmarks

Go to the Analysis you previously created. Then click on the Arrow in the upper left corner. Now you can select between the save the selection as a bookmark.
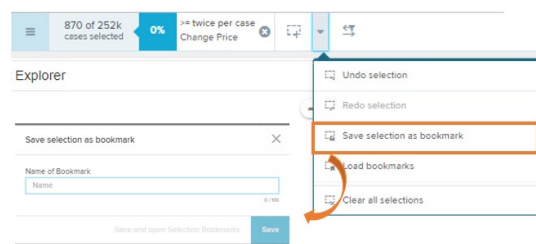
As soon as you saved at least one bookmark you can load the saved selection later on.