

Dutch Environmental Permit Application Process: CoSeLoG

bdanalytics

Contents

Date: (Wed) Dec 10, 2014

Data: Originates from the CoSeLoG project executed under NWO project number 638.001.211. Within the CoSeLoG project the (dis)similarities between several processes of different municipalities in the Netherlands has been investigated. This event log contains the records of the execution of the receiving phase of the building permit application process in an anonymous municipality.

Source: <http://data.3tu.nl/repository/uuid:a07386a5-7be3-4367-9535-70bc9e77dbe6>

Time period: 2010-10-02 to 2012-01-23

0.0.1 Synopsis:

0.0.1.1 Potential next steps include:

0.0.2 Template:

Approach I used:

Describe exactly what you did (e.g. which plug-ins did you use, which settings did you change), in such a way that others can easily reproduce your results. You only need to describe where/if you deviated from the provided instructions.

What I saw:

Briefly describe the resulting analysis screen (also include this as a screenshot, see explanation below), explain what we see, without including observations or conclusions.

My analysis:

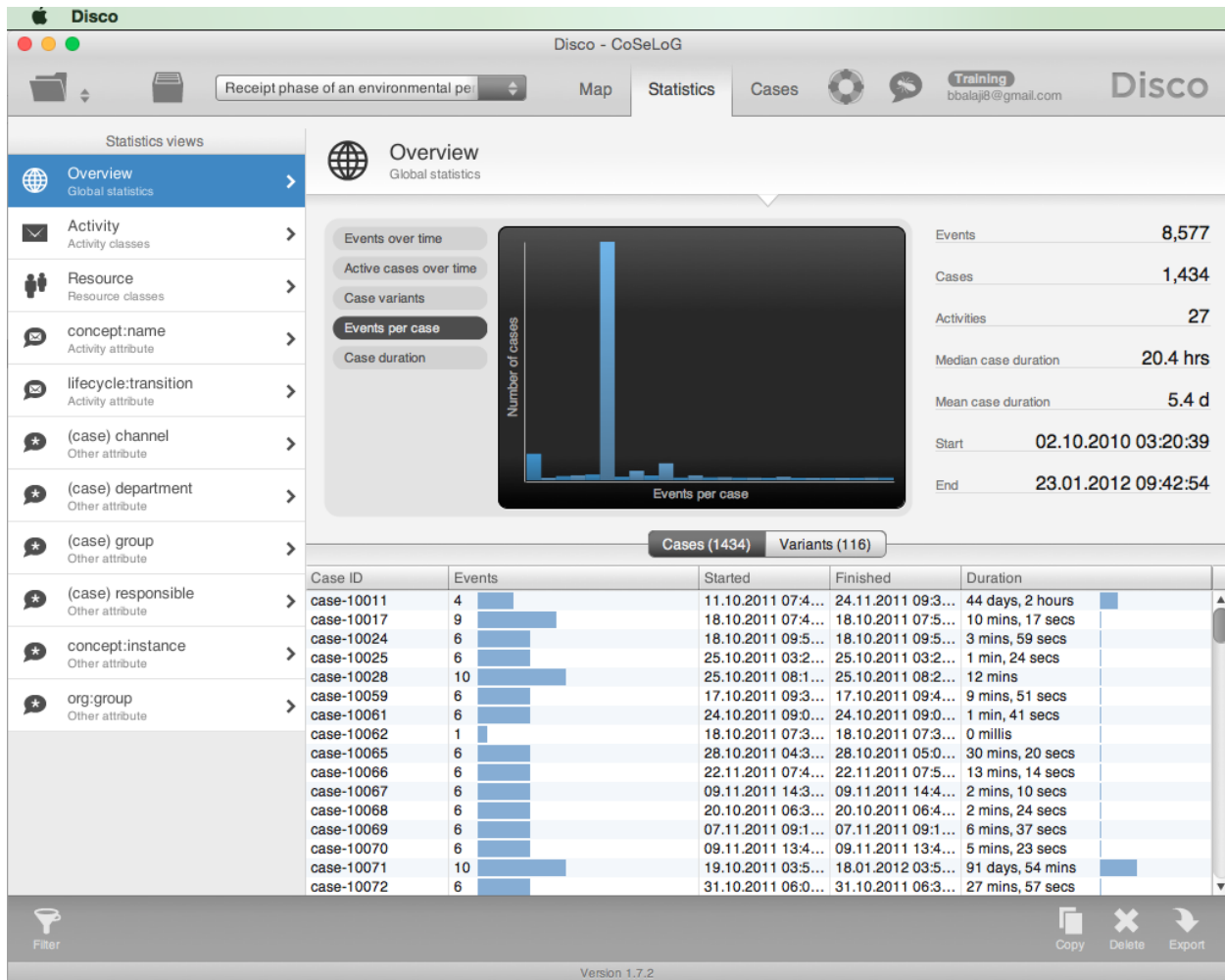
What can you conclude from the analysis result? How do you interpret the result? What is the answer to the question?

0.0.3 Step 01: import event log in Disco

Approach I used:

1. Import the event log into Disco.
2. Switch to “Statistics” tab / view
3. Click on “Overview” button in the left pane under “Statistics views”
4. Click on “Events per case” button to the left of the graph

What I saw:



The graph pane displays a histogram (Number of cases) of Events per case in this event log. The event log contains 8,577 events in 1,434 cases with 27 activities.

My analysis:

There are 6 events on average per case. This information can be gathered by hovering the mouse on the tallest bar.

By clicking on “Variants” button on top of the table, we can see that there are only 116 variants amongst the 1,434 cases.

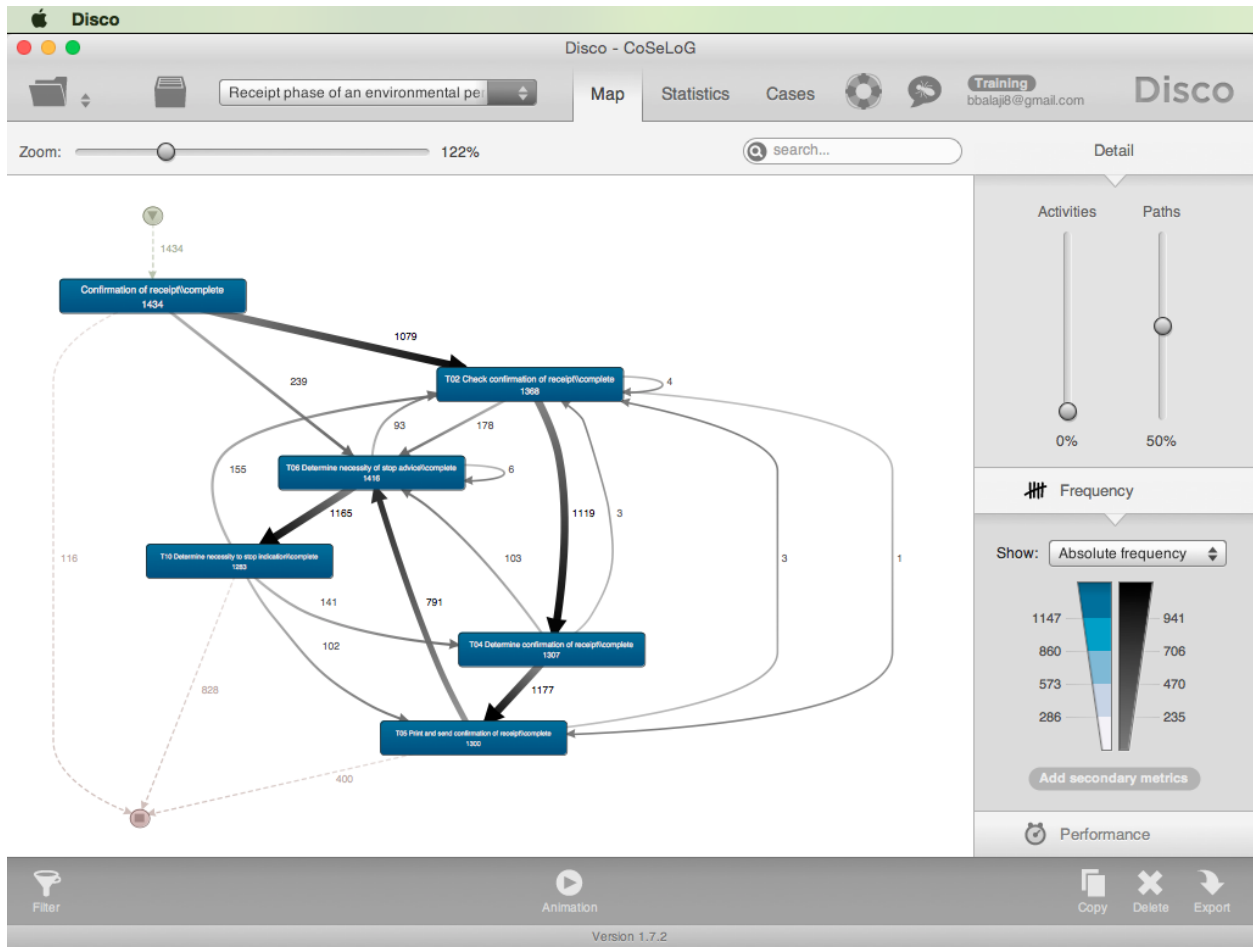
The main observation from the ‘Events over time’ graph is that the maximum number of events (33) occurred on May 2, 2011 across cases.

0.0.4 Step 02: inspect process map in Disco

Approach I used:

1. Click on “Map” tab in the window header.
2. Set “Activities” slider to 0% & “Paths” slider to 50% to make the process map fit on one screen and still be readable.

What I saw:



My analysis:

The 6 most frequent activities between the initiation and termination of cases in the process map include:

- Confirmation of receipt
- T02 Check confirmation of receipt
- T04 Determine confirmation of receipt
- T05 Print and send confirmation of receipt
- T06 Determine necessity of stop advice
- T10 Determine necessity to stop indication

The most frequent activity paths traced by the cases include (this is supposed to display as a table, but doesn't work properly) :

Activity Path | # of Cases

Start -> TA -> End | 116
 Start -> TA -> T02 -> T04 -> T05 -> End | 400
 Start -> TA -> T02 -> T04 -> T05 -> T06 -> T10 -> End | 828
 |
 Total cases displayed in this map | 1,344
 Total cases | 1,434
 % cases displayed in this map | 94%

Do not understand why if "Confirmation of receipt" is complete, there is a need for "T02 Check confirmation of receipt". Additionally, there are 4 activities (TA, T02, T04 & T05) regarding confirmation of receipts.

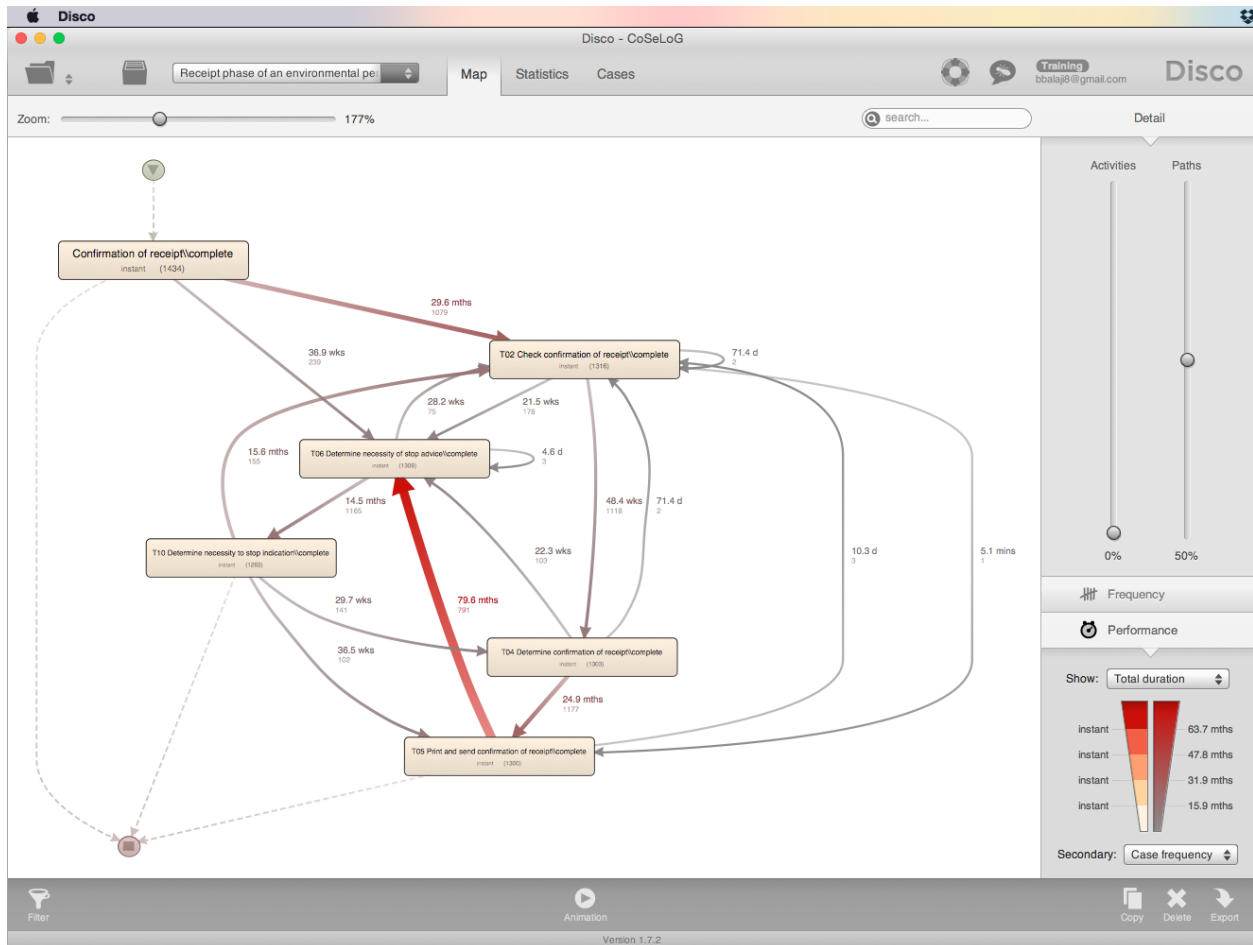
Maybe these activities are not named appropriately ? and/or We need to understand the intermediate activities (e.g. T01, T03) to get a better understanding ?

0.0.5 Step 03: inspect process performance in Disco

Approach I used:

1. Click on “Performance” bar / button in the “Detail” pane (right above the “Copy” / “Delete” / “Export” icons).
2. Select “Total Duration” in the “Performance” pane to display.
3. Select “Case frequency” as the secondary metric in the “Performance” pane to ensure that we don’t use outliers (e.g. low case frequency) to make broad conclusions about the process.
4. Cycle through different metrics in the button next to “Show:” in the Performance pane.

What I saw:



The color & thickness of the arcs are based on the distribution of the selected primary performance metric. Additionally, if an arc is clicked, a statistics window is displayed for that arc.

My analysis:

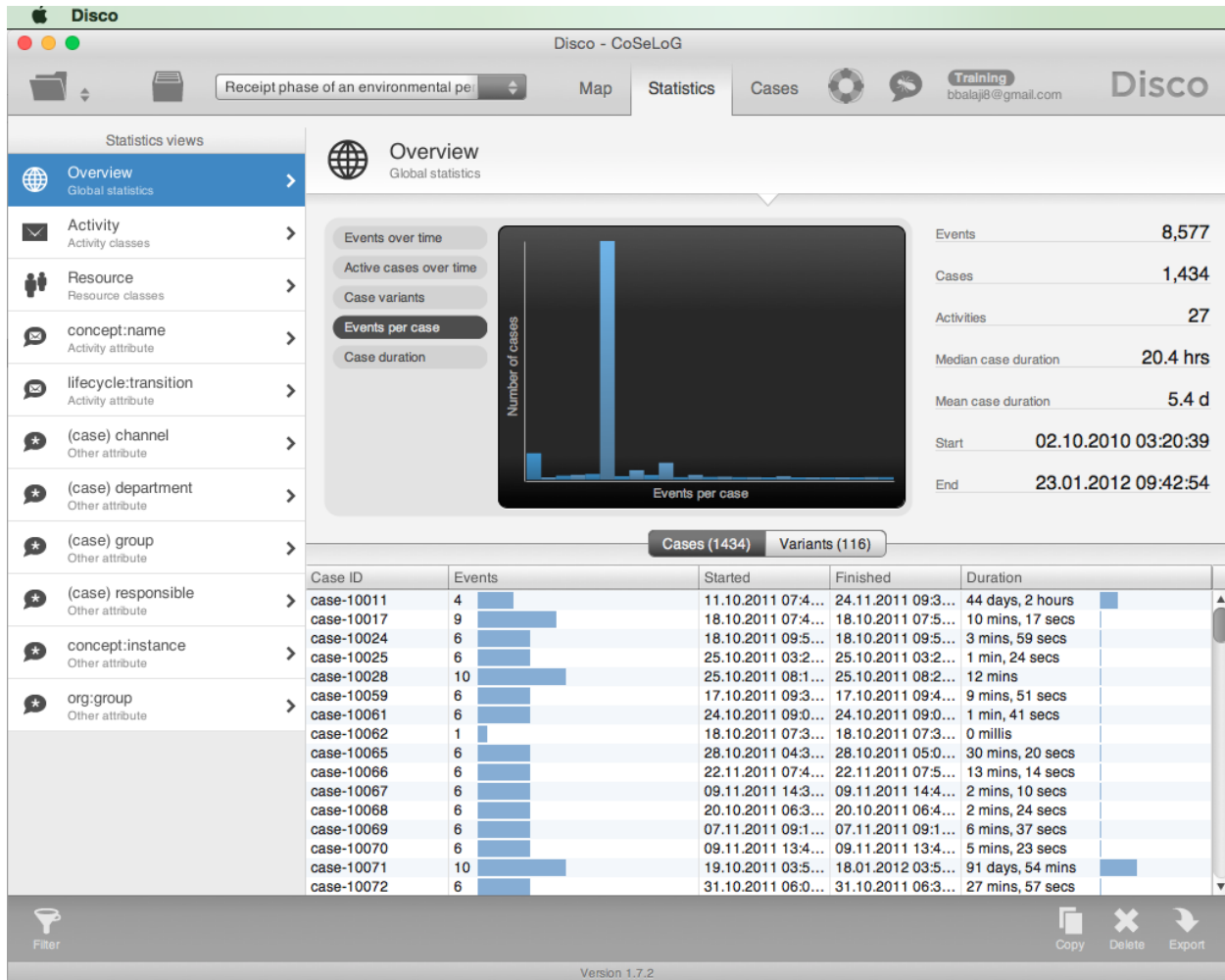
Total Duration: The arc from T05 to T06 takes 79.6 months for 791 cases (31% of total duration of all cases which is 258.12 months: mean of 5.4 days per case X 1,434 cases / 30 elapsed days per month). The next bottleneck seems to be TA -> T02 which is 29.6 months for 1,079 cases.

Analysis of other metrics (median, mean & max duration) highlighted arcs with very low case frequency.

0.0.6 Step nn: step title

Approach I used:

What I saw:



My analysis: