

Data and Process Modelling

Lab9-10. Process Mining

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Process Mining with Disco

1. Download the sample CVS input file from the web site.
2. Follow the tutorial with the lecturer.
3. Play with Disco.

Process Mining with ProM

1. Convert the CVS file to XES with Disco.
2. Open ProM.
3. Focus on the following plug-ins:
 - ▶ Dotted Chart
 - ▶ Alpha-algorithm
 - ▶ Inductive miner
 - ▶ Social network (handover of work)
 - ▶ Conformance checking

Exercise: Discovery

1. Open the CVS file called “sample1.cv”.
2. Apply the alpha-algorithm manually and draw the obtained Petri net.
3. Analyze the obtained Petri net: how does it look?
4. Double check your result using Disco and ProM.
 - ▶ Play with Disco.
 - ▶ Export to XES.
 - ▶ Import in ProM.
 - ▶ Apply the alpha algorithm.
 - ▶ Do conformance checking.

Exercise: Conformance Checking

1. Open the CVS file called “sample2.cv”.
2. Apply conformance checking manually and obtain the corresponding conformance metric.
3. See conformance in ProM.
 - ▶ Play with Disco.
 - ▶ Export to XES.
 - ▶ Import in ProM.
 - ▶ Do conformance checking using the previously mined Petri net.

Further Exercises in ProM

Consider the other exercises linked from the web page. Become familiar with other plug-ins.