

load

November 13, 2022

```
[1]: import pm4py
import graphviz

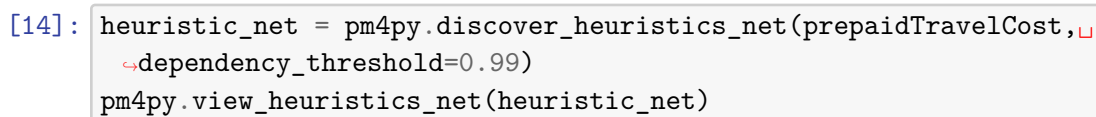
from pm4py.algo.discovery.alpha import algorithm as alpha_miner
from pm4py.algo.discovery.inductive import algorithm as inductive_miner
from pm4py.algo.discovery.heuristics import algorithm as heuristics_miner
from pm4py.algo.discovery.dfg import algorithm as dfg_discovery

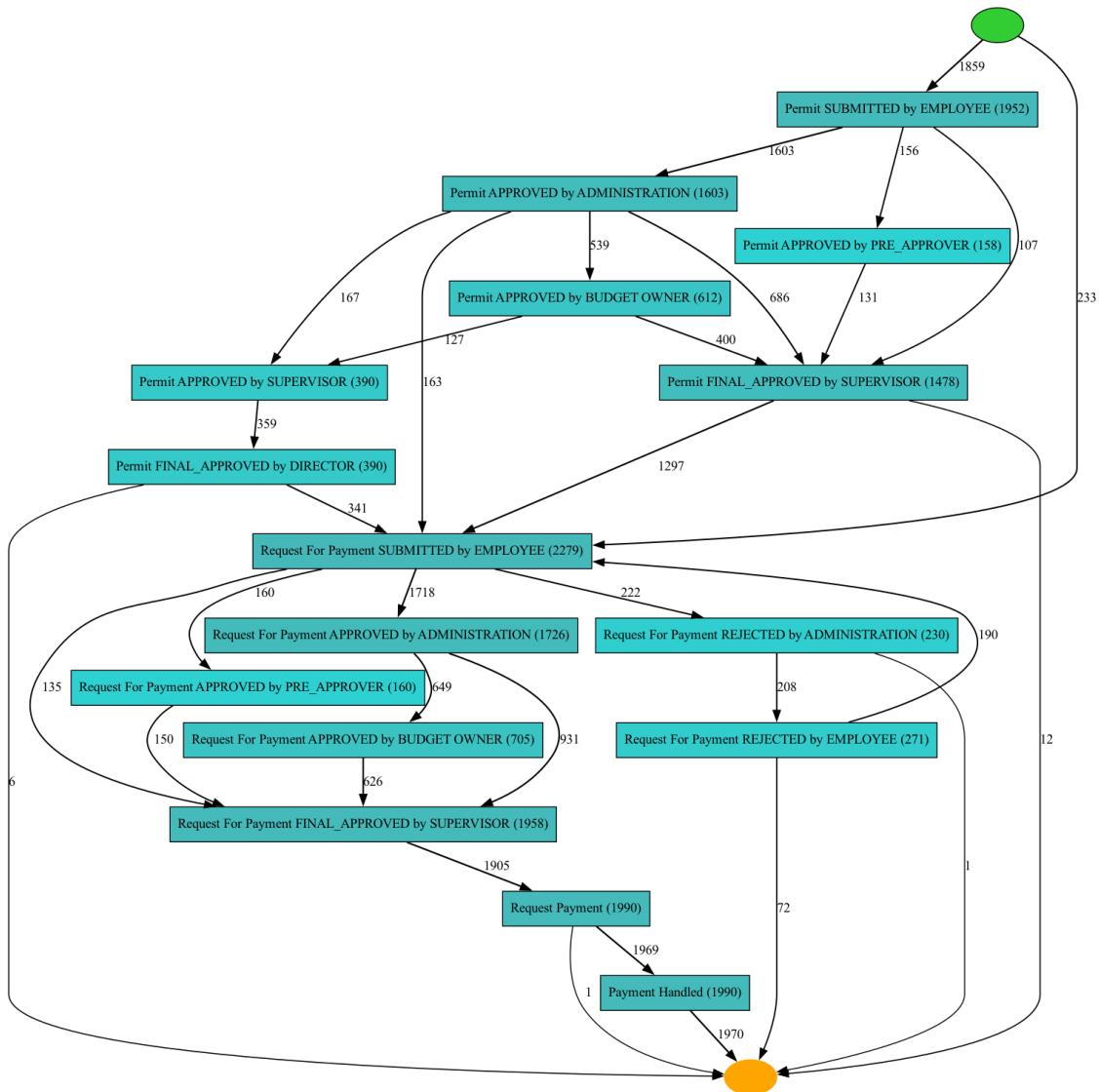
# viz
from pm4py.visualization.petri_net import visualizer as pn_visualizer
from pm4py.visualization.process_tree import visualizer as pt_visualizer
from pm4py.visualization.heuristics_net import visualizer as hn_visualizer
from pm4py.visualization.dfg import visualizer as dfg_visualization

[2]: permitLog = pm4py.read_xes('data/original/PermitLog.xes_')
internationalDeclarations = pm4py.read_xes('data/original/
↪InternationalDeclarations.xes_')
domesticDeclarations = pm4py.read_xes('data/original/DomesticDeclarations.xes_')
prepaidTravelCost = pm4py.read_xes('data/original/PrepaidTravelCost.xes_')
requestForPayment = pm4py.read_xes('data/original/RequestForPayment.xes_')

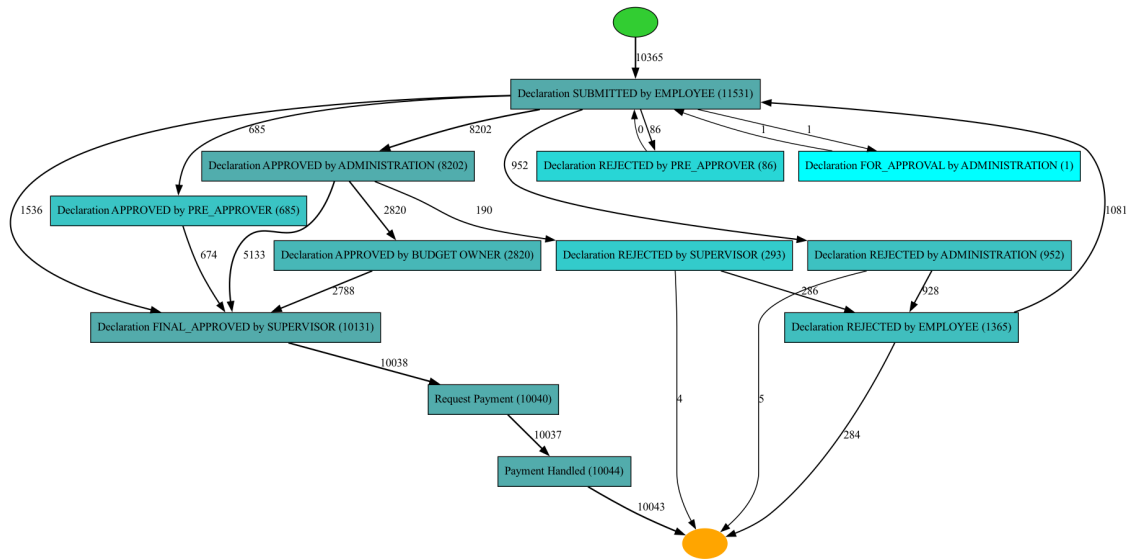
parsing log, completed traces :: 0%|          | 0/7065 [00:00<?, ?it/s]
parsing log, completed traces :: 0%|          | 0/6449 [00:00<?, ?it/s]
parsing log, completed traces :: 0%|          | 0/10500 [00:00<?, ?it/s]
parsing log, completed traces :: 0%|          | 0/2099 [00:00<?, ?it/s]
parsing log, completed traces :: 0%|          | 0/6886 [00:00<?, ?it/s]

[13]: heuristic_net = pm4py.discover_heuristics_net(permitLog, dependency_threshold=0.
↪99)
pm4py.view_heuristics_net(heuristic_net)
```

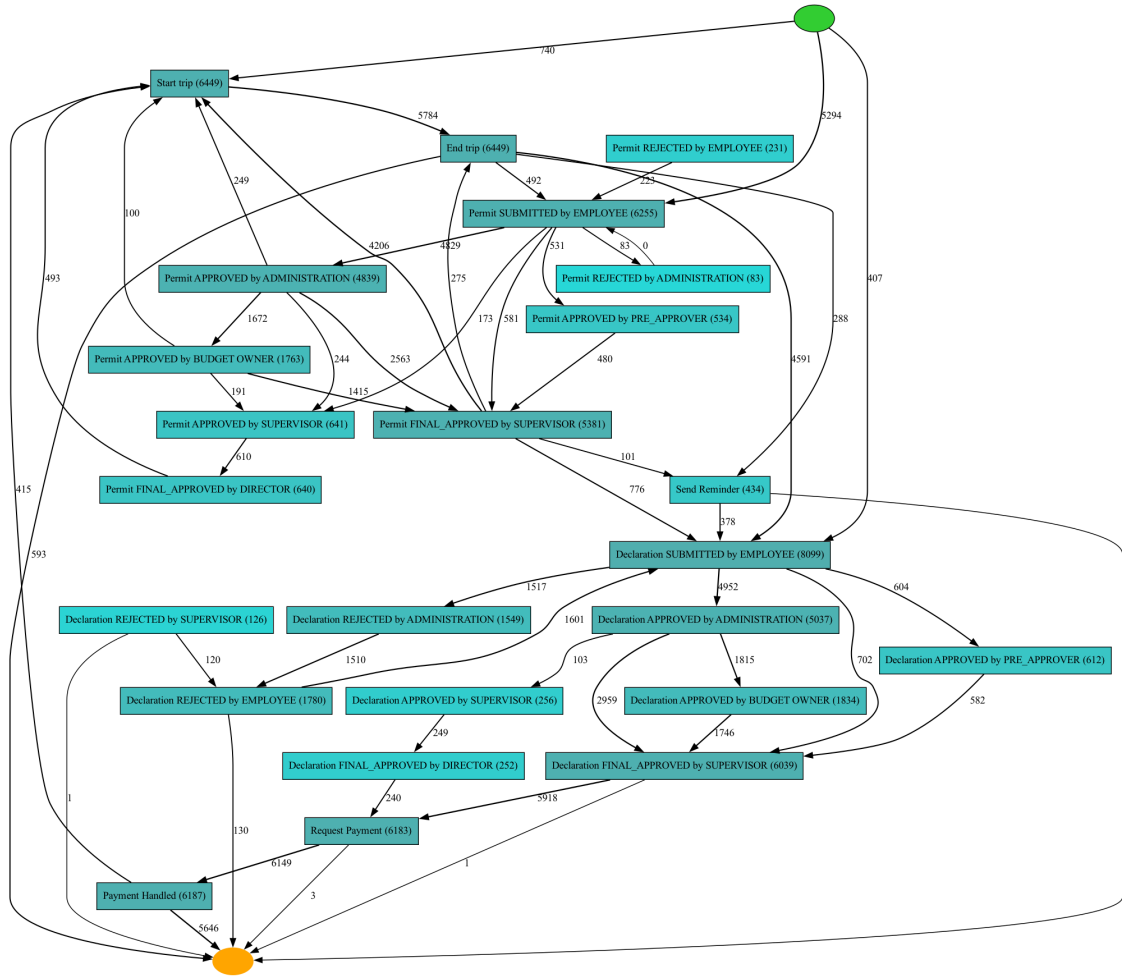




```
[15]: heuristic_net = pm4py.discover_heuristics_net(domesticDeclarations,
↳ dependency_threshold=0.99)
pm4py.view_heuristics_net(heuristic_net)
```



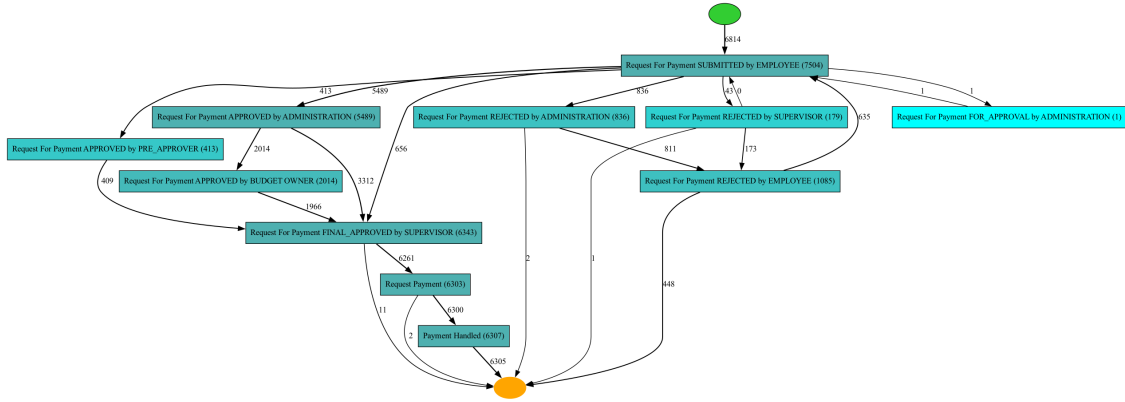
```
[16]: heuristic_net = pm4py.discover_heuristics_net(internationalDeclarations,
    ↳ dependency_threshold=0.99)
pm4py.view_heuristics_net(heuristic_net)
```



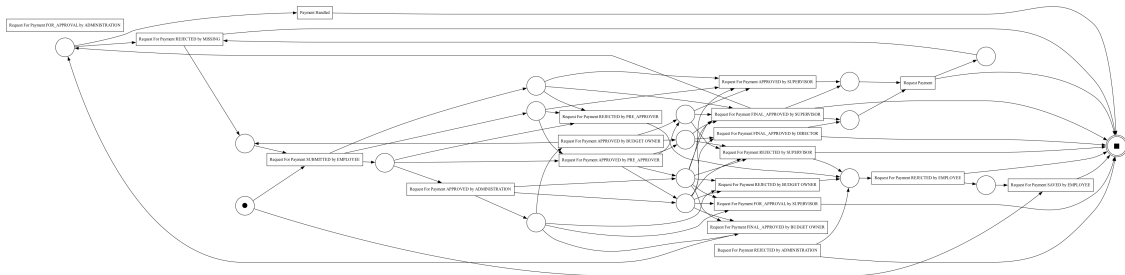
```
[17]: log = requestForPayment
log[0][0]
```

```
[17]: {'id': 'st_step 148220_0', 'org:resource': 'STAFF MEMBER', 'concept:name':
'Request For Payment SUBMITTED by EMPLOYEE', 'time:timestamp':
datetime.datetime(2017, 1, 9, 9, 17, 18,
tzinfo=datetime.timezone(datetime.timedelta(seconds=3600))), 'org:role':
'EMPLOYEE'}
```

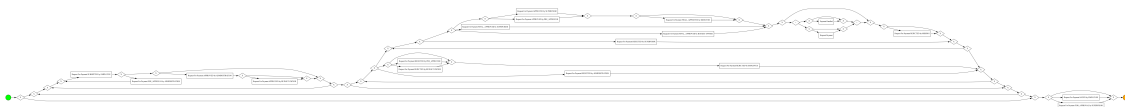
```
[18]: heuristic_net = pm4py.discover_heuristics_net(requestForPayment,
↳ dependency_threshold=0.99)
pm4py.view_heuristics_net(heuristic_net)
```



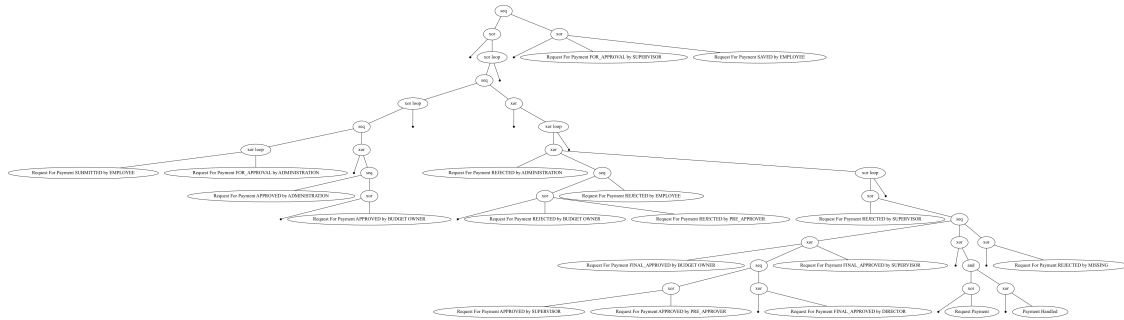
```
[19]: net, initial_marking, final_marking = pm4py.  
      ↪discover_petri_net_alpha(requestForPayment)  
      gviz = pn_visualizer.apply(net, initial_marking, final_marking)  
      pn_visualizer.view(gviz)
```



```
[20]: process_tree = pm4py.discover_process_tree_inductive(requestForPayment)  
      bpmn_model = pm4py.convert_to_bpmn(process_tree)  
      pm4py.view_bpmn(bpmn_model)
```



```
[21]: pm4py.view_process_tree(process_tree)
```



```
[22]: # len(domesticDeclarationsDF)
```

```
[12]: #len(internationalDeclarationsDF)
```

```
NameError                                Traceback (most recent call last)
Input In [12], in <module>
----> 1 len(internationalDeclarationsDF)

NameError: name 'internationalDeclarationsDF' is not defined
```

```
[ ]: #len(requestForPaymentDF)
```

[]: