Test result on demo-example

This file is used to record the test result of our demo example.. Firstly, we list the event logs and models it need, then do the test and give out the results on it..

In the folder I just created much simple examples to show this. It’s not enough, So change it to the whole data.

Event log:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Data ID | File name | process | cases | events | Event class | Min | Mean | Max |
| D1 | demo-s1-01.xes | Data description:  50 a, b, c1, d, x1,e, f1, g1, g2, h, i ;  50 a, b, c2, d, x2, e, f2, g2, g1, h, i ; |  |  |  |  |  |  |
| D2 | demo-s2-01.xes | Data description:  pos: 50 a, b, c1, d, e,f1, g2, g1, h,i;  50 a, b, c2, d, e,f2, g1, g2, h,i;  Neg: 30 a, c1, d,e, f2, g2, g1, b, h,i;  20 a,c1, b, d, e, f1, g1, g2, h,i; |  |  |  |  |  |  |
| D3 | demo-s3-01.xes | Data description:  Pos:  50 a, b, c1, d, e, f1, g1, g2, h, i ;  50 a, b, c2, d, e, f2, g2, g1, h,i;  Neg:  50 a, b, c1, d, e, f2, g2, g1, h,i;  50 a, b, c2, d, e, f1, g1, g2, h,i; |  |  |  |  |  |  |
| D4 | If we want to create data unsuitable for all of those data, we need have noisy data available at our case.  To design an event log, we have already the cases for the repair method, but for IM, how to change them then??  IM noise data | How to combine all the data together??  50 a, b, c1, d, x1,e,f1, g1, g2, h,i ;  50 a, b, c2, d, x2, e,f2, g2, g1, h,i;  50 a, b, c1, d, x2,e,f1, g2, g1, h,i;  // 50 a, b, c2, d, x1,e,f2, g1, g2, h,i;  20 a, c1, b, d, x2, e, f1, g1, g2, h,i;  Neg: 30 a, c1, d,e, f2, g2, g1, b, h,i;  30 a, c1, b, d, x2, e, f1, g1, g2, h,i;  50 a, c1, d, b,e, f2, g2, g1, h,i;  50 a, c2, d, e, x1,b, f1, g1, g2, h,i; |  |  |  |  |  |  |

Models :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ID | Data file | Setting | Model file | Model figures | Description |
| M1 | BPI15\_1\_40\_filter.xes | Inductive Mine:  IM-infrequent : 0.2  concept: name | BPI\_1\_40\_M1\_IM0\_classes.pnml | BPI\_1\_40\_M1\_figure.pdf |  |

Results:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Log | Model | Techniques | Result |
| T1.1 | D1 | M1 | Dfg method: | We have a lot of silent transitions in the graph, and it should be there actually.. What causes it behaves like this??  The dfg generated is different from model before, right??  Why do we skip so many activity??  People says that if the same bugs hidden in the programs like the ones you found..  The cardinality goes up, how could it goes up??  It is a strong connection, which we don’t usually have it.. So if we want to assign the cardinality, we should use the event log sizes num??  But it doesn’t change the result, so I need to consider why it is so..  why there is so many silent transitions?? Because it can not distinguish b is parallel to the other situations, then it uses silent transitions to keep it there..  // how to avoid it there??  The reason behind it is clear, but how to avoid it?  If we use the reachability graph to discover the models, we have the directly-follows relation there, it stands a point. So what to do then?? It can result in many models.  If we extract the directly-follows relation from the models directly.. what to do then?? Then the directly-follow relation contains there, like a→b and b→i, the others not change??  If we use the BFS search algorithm, we can have it, but is it complete?  Sometimes it is better just to put them together to have a better result?? I’m not so sure, but the result currently, shows sth wrong.. |
| T1.1.2 | 4.2 | M1 | Fahland’s method: only on positive, test based on train data with all labels | We get models with a lot of complexity to fulfill the needs in the data. But TP=FP=0, don’t know why.. |

We can have a compressed models and data, now let us see the result that if those changes can be reflected by repair methods.. of Farhland or Dees..

Change the introduction part, and finish the first part of this experiments. Need to point out the changes of our data, but what we know is that when the data are here, we can’t see it.. Just combine them all together.. But make sure that you know it