

User Manual

Label Refinement by Behavioral Similarity - WEBSITENAME

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<b>1</b>	<b>Overview</b>	<b>1</b>
<b>2</b>	<b>The Start Page</b>	<b>1</b>
2.1	Upload Event Log for refining . . . . .	1
2.2	Customize . . . . .	1
2.3	Last uploaded files . . . . .	1
2.4	Last refined files . . . . .	1

## 1 Overview

Many processes involve carrying out an action multiple times. An example for this would be an online shop in which you first have to pay a registration fee before ordering an item and paying it. This process contains the event “payment” twice, but in different contexts, so that the payments are actually two different tasks. In the context of analysing processes, the event logs usually only contain the event names, so that the “payment” actions would be treated as the same task and loops would be induced in the resulting models. However, these loops do not match the actual process, which is the issue this project addresses.

Using the webservice we provide, imprecise logs can be refined based on the structural contexts of the events. The refinement is executed by relabeling the original log and no filtering is applied to the log. Moreover, it is possible for the user to interactively change the thresholds used by the algorithm. The algorithm we use is based on [1].

In the following chapters, the usage of this web service will be explained.

## 2 The Start Page

The start page of our web service consists of different parts, which will be explained in the following subsections. Namely, we have the parts “Upload Event Log for refining”, “Customize”, “Last uploaded files” and “Last refined files”.

### 2.1 Upload Event Log for refining

In this part of the start page, an event log can be uploaded. In order to do so, the user can either directly type in a path to a file or use the “search” button to search local files on your pc. Afterwards, he has to press the “Upload files” button in order to upload the selected file, he can add a comment on the file in the blanc box and press submit to start the upload.

In order to successfully upload a file, this file has to be in XES or csv format, otherwise an error will occur.

### 2.2 Customize

In this section, the user can adjust the thresholds in order to fit his needs. To do so, he can either adjust them using the provided slide control or by typing them manually. The thresholds the user can adjust are the horizontal threshold, the vertical threshold, the weight structure, the weight for matched pairs of actions and the weight for not matched pairs of actions.

### 2.3 Last uploaded files

In this part of the start page, the user can see up to five of his last uploaded files and select them in order to apply the algorithm again. These files are not refined, but equal the originally uploaded files

### 2.4 Last refined files

In this part of the start page, the user can see up to five of his last refined files and download them again. These files are already refined.

## References

- [1] Lu, Xixi, et al. “Handling duplicated tasks in process discovery by refining event labels.” International Conference on Business Process Management. Springer, Cham, 2016.
- [2] La Rosa M., Loos P., Pastor O. (eds) Business Process Management, BPM 2016, Lecture Notes in Computer Science, vol 9850. Springer, Cham, 2016.